Exploring the Needs and Barriers for Death Education Curriculum in Higher Education in Mainland China

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DECLARATION

I hereby declare that the work presented in this thesis was conducted in full compliance with the regulations of Universiti Malaysia Sarawak (UNIMAS). Except where proper acknowledgment is given, this work is solely the effort of the author. This thesis has not been accepted for the award of any other degree and is not being **concurrently** submitted for any other academic qualification.

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Exploring the Needs and Barriers for Death Education Curriculum in Higher Education in Mainland China

ABSTRACT

Death education remains underdeveloped in higher education institutions in Mainland China due to cultural taboos, limited policy guidance, and insufficient curricular integration. This study aimed to examine the current status, educational needs, and implementation barriers of death education in Mainland Chinese universities, and to evaluate the impact of a structured, culturally sensitive death education curriculum on students' psychological well-being and professional preparedness.

A convergent parallel mixed-methods design was employed. Quantitative data were collected through structured questionnaires administered to 406 students and 392 faculty members selected using stratified and purposive sampling strategies. The instruments included a self-developed questionnaire assessing perceptions, attitudes, knowledge, and barriers, as well as validated scales: the Death Attitude Profile-Revised (DAP-R), the Coping with Death Scale (CDS), and the Frommelt Attitude Toward Care of the Dying Scale, Form B (FATCOD-B). In addition, qualitative data were obtained through semi-structured interviews and focus group discussions to explore experiential perspectives and contextual factors. A quasi-experimental pre-test–post-test design involving 160 students was conducted to evaluate the effectiveness of the proposed curriculum intervention. Quantitative data were analyzed using descriptive statistics, difference analysis, and factor analysis, while qualitative data were examined through thematic coding.

The findings revealed significant knowledge gaps, particularly in grief and bereavement literacy, alongside generally positive but culturally constrained attitudes toward death education. Institutional barriers such as insufficient policy support and cultural taboos were identified as major challenges to curriculum integration. The quasi-experimental results demonstrated statistically significant improvements in students' death attitudes, coping competence, and professional preparedness following participation in the structured curriculum. The integration of qualitative and quantitative findings supported the development of a culturally adaptive curriculum framework encompassing cognitive understanding, emotional processing, practical competence, and value reflection.

This study contributes empirical evidence for the feasibility and transformative potential of death education in Mainland Chinese higher education. The findings provide theoretical,

methodological, and practical insights for culturally responsive curriculum design and institutional policy development.

Keywords: Death education; higher education; mixed-methods research; quasi-experimental design; death attitudes; coping competence; curriculum development; Mainland China

Meneroka Keperluan dan Halangan bagi Kurikulum Pendidikan Kematian dalam Pendidikan Tinggi di Tanah Besar China

ABSTRAK

Pendidikan kematian masih kurang berkembang dalam institusi pendidikan tinggi di Tanah Besar China disebabkan oleh tabu budaya, panduan dasar yang terhad, serta integrasi kurikulum yang tidak menyeluruh. Kajian ini bertujuan untuk meneliti status semasa, keperluan pendidikan, dan halangan pelaksanaan pendidikan kematian di universiti-universiti di Tanah Besar China, serta menilai impak kurikulum pendidikan kematian yang berstruktur dan sensitif terhadap budaya terhadap kesejahteraan psikologi dan kesiapsiagaan profesional pelajar.

Reka bentuk kajian kaedah campuran selari konvergen telah digunakan. Data kuantitatif dikumpulkan melalui soal selidik berstruktur yang diedarkan kepada 406 pelajar dan 392 ahli fakulti yang dipilih menggunakan strategi pensampelan berstrata dan bertujuan. Instrumen yang digunakan termasuk soal selidik yang dibangunkan sendiri oleh penyelidik bagi menilai persepsi, sikap, pengetahuan, dan halangan, serta skala yang telah disahkan, iaitu 'Death Attitude Profile-Revised (DAP-R), Coping with Death Scale (CDS), dan Frommelt Attitude Toward Care of the Dying Scale Form B (FATCOD-B)'. *Selain itu, data kualitatif diperoleh melalui temu bual separa berstruktur dan perbincangan kumpulan fokus untuk meneroka perspektif pengalaman dan faktor kontekstual. Reka bentuk kuasi-eksperimen pra-ujian dan pasca-ujian melibatkan 160 pelajar telah dijalankan bagi menilai keberkesanan intervensi kurikulum yang dicadangkan. Data kuantitatif dianalisis menggunakan statistik deskriptif, analisis perbezaan, dan analisis faktor, manakala data kualitatif dianalisis melalui pengekodan tematik.*

Dapatan kajian menunjukkan wujud jurang pengetahuan yang ketara, khususnya dalam literasi berkaitan kesedihan dan kehilangan, di samping sikap yang secara umumnya positif tetapi dibatasi oleh faktor budaya terhadap pendidikan kematian. Halangan institusi seperti kekurangan sokongan dasar dan tabu budaya dikenal pasti sebagai cabaran utama dalam integrasi kurikulum. Keputusan kuasi-eksperimen menunjukkan peningkatan yang signifikan secara statistik dalam sikap terhadap kematian, kecekapan daya tindak, dan kesiapsiagaan profesional pelajar selepas mengikuti kurikulum berstruktur tersebut. Integrasi dapatan kualitatif dan kuantitatif menyokong pembangunan kerangka kurikulum yang adaptif secara budaya yang merangkumi pemahaman kognitif, pemprosesan emosi, kecekapan praktikal, dan refleksi nilai.

Kajian ini menyumbang bukti empirikal mengenai kebolehlaksanaan dan potensi transformatif pendidikan kematian dalam pendidikan tinggi di Tanah Besar China. Dapatan kajian memberikan implikasi teoritikal, metodologi, dan praktikal untuk reka bentuk kurikulum yang responsif terhadap budaya serta pembangunan dasar institusi.

Kata Kunci: *Pendidikan kematian; pendidikan tinggi; penyelidikan kaedah campuran; reka bentuk kuasi-eksperimen; sikap terhadap kematian; kecekapan daya tindak; pembangunan kurikulum; Tanah Besar China*

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LIST OF ABBREVIATIONS

CGS	Centre for Graduate Studies
UNIMAS	Universiti Malaysia Sarawak
DAP-R	Death attitude profile revised
CDS	Coping with death scale
FATCOD-B	Frommelt attitudes toward care of the dying scale, form B
KMO	Kaiser-Meyer-Olkin Measure of Sampling Adequacy
CFA	Confirmatory Factor Analysis
ANOVA	Analysis of Variance
LSD	Least Significant Difference

CHAPTER 1:

INTRODUCTION

Chapter 1 discusses the study's context and problem statement in relation to current issues germane to the research field. The research queries are then presented alongside the research objectives and hypotheses. This chapter also includes the significance of the study, its limitations and scope, as well as definitions of key terms. The chapter concludes with a concise overview.

1.1 Background of Study

Death, an inherent and universal aspect of the human experience, has consistently engendered profound philosophical and societal discourse. However, culturally mediated perceptions of and attitudes toward mortality significantly influence the development and implementation of death education initiatives. Globally, death education is increasingly recognized as an integral component of comprehensive educational systems, designed to foster a deeper understanding of life and death, cultivate effective grieving processes, and enhance individuals' capacity to navigate end-of-life challenges. This pedagogical approach has achieved a relatively advanced state in numerous Western nations, resulting in a substantial accumulation of theoretical and practical expertise.

Death education in Mainland China remains in its early stages of systematic development, with limited institutional integration and policy endorsement. Due to the influence of traditional Confucian and Buddhist teachings, death is often deemed a taboo subject, leading to a prevalent inclination to evade discussion and even regard it as an unlucky symbol. This cultural reticence presents substantial barriers to the overt and systematic delivery of death education.(Pun et al., 2024; Zhang, 2022; Bai, 2021).In tandem with the progression of social development and modernization, conventional perceptions of life and death are undergoing disruption(Liu, 2022)， This has led to a state

of ambiguity and disquietude among members of society, with youth in particular often exhibiting a deficit in appropriate knowledge and psychological preparedness when confronted with mortality.(Liang et al., 2024; Wang, 2020).

The extant literature demonstrates that death education in mainland China is yet in the initial stages of its evolution (Shu et al., 2023), revealing a paucity of empirically supported curricula and efficacious pedagogical strategies (Duan&Lee,2024). Despite the implementation of certain death education-related activities by a number of universities and social organizations, these undertakings are often characterized by a lack of integration, consistency, and well-defined objectives (Lan et al.,2024； Wang， 2020） Despite increasing academic attention, the field continues to face structural and conceptual fragmentation, indicating that comprehensive curriculum implementation has yet to be fully realized. Due to the influence of traditional Confucian and Buddhist teachings, death is often deemed a taboo subject, leading to a prevalent inclination to evade discussion and even regard it as an unlucky symbol. This cultural reticence presents substantial barriers to the overt and systematic delivery of death education. (Pun et al., 2024; Zhen et al., 2023).The extant literature exhibits a paucity of investigations into the specific requirements of university students in mainland China and how to more efficaciously administer death education in the presence of cultural diversity.（Duan & Lee，2024）.

In contrast to the United States and Europe, death education development in higher education in mainland China reveals marked differences. Western nations have acquired extensive expertise in the theoretical, curricular, and practical aspects of death education, and also place greater importance on students' emotional articulation and open discourse. Nevertheless, this model's relevance may be circumscribed by the Chinese cultural setting, where death is commonly considered a sensitive and taboo topic(Ma, 2023).Consequently, the delivery of death education within the higher education sector in mainland China necessitates adapting international expertise while incorporating indigenous cultural values and national realities, thereby fostering an educational model tailored to the Chinese context.(Hong & Sun, 2024)

In addition, social development and demographic changes are leading to more complex issues for university students, including how to address life's uncertainties and death..(Tang et al., 2023; Wang et al., 2021).In the context of higher education students, exposure to death education has the potential to facilitate both a profound appreciation for

life and a deeper understanding and management of death, while also promoting their personal growth and psychological health.(Ronconi et al., 2023)

Hence, this study seeks to provide an in-depth investigation of the needs pertaining to death education within institutions of higher learning in mainland China, to evaluate the barriers currently hindering its development, and to furnish both theoretical validation and practical directives for the redesign of a death education curriculum framework specifically tailored to the Chinese milieu. This research endeavors, through systematic investigation and deliberate analysis, to promote the overall development of death education in universities on the Chinese mainland, thus making contributions to the cultivation of future talents who possess a sound understanding of death, positive death-related emotions, and the ability to cope with death.

1.2 Problem Statements

Death remains a culturally sensitive and often taboo subject in many societies, including Mainland China, where traditional Confucian and Buddhist values heavily influence perceptions of mortality and the afterlife (Zhang et al., 2020). This cultural hesitancy to discuss death has significant implications for higher education, where there is a growing need to prepare students for professional roles that demand competence in addressing end-of-life issues, such as healthcare, counseling, and social work (Chen & Huang, 2022). Despite the critical importance of this subject, death education is noticeably absent from most higher education curricula in Mainland China, creating a gap in knowledge, psychological preparedness, and cultural competence among students (Liu et al., 2021).

Efforts to introduce death education in Mainland China face several barriers, including deeply rooted cultural stigmas, institutional inertia, and the absence of comprehensive educational frameworks tailored to the Chinese context (Wang et al., 2019). Furthermore, while global best practices in death education have demonstrated the value of structured curricula in fostering emotional resilience, ethical sensitivity, and professional preparedness, such approaches often fail to account for the unique cultural and societal dynamics of Mainland China (Kellehear, 2018).

The lack of formalized death education not only limits students' ability to navigate personal encounters with death but also hinders their professional development, especially in disciplines where dealing with loss and grief is a fundamental component (Chen & Huang, 2022). This gap underscores an urgent need to explore the educational needs, perceptions, and barriers associated with death education in higher education settings in Mainland China.

This research aims to address these challenges by identifying the specific needs and barriers to death education, analyzing existing frameworks, and proposing a culturally sensitive and contextually relevant educational framework tailored for Mainland Chinese higher education. By redesigning and implementing this curriculum, the study seeks to enhance students' psychological well-being, cultural competence, and preparedness for addressing death-related issues in both personal and professional spheres.

1.2.1 Contextual gap

Death education has gained recognition globally as a critical component of higher education, particularly in fields such as healthcare, psychology, and social work, where professionals often encounter end-of-life situations (Kellehear, 2018). Countries such as the United States, the United Kingdom, and Japan have integrated death education into their curricula, focusing on fostering emotional resilience, ethical sensitivity, and cultural competence (Chen & Huang, 2022). However, in Mainland China, the integration of death education remains limited, with sporadic efforts that lack consistency, cultural adaptation, and institutional support (Liu et al., 2021).

Existing studies primarily highlight the theoretical importance of death education and the psychological benefits it offers (Zhang et al., 2020), but few address the practical challenges of designing and implementing such programs in the context of Mainland China's unique cultural, societal, and institutional environment. Traditional values rooted in Confucianism and Buddhism often discourage open discussions about death, creating significant cultural barriers (Wang et al., 2019). Moreover, the absence of a comprehensive framework tailored to the specific needs and sensitivities of Chinese students and educators exacerbates the issue, leaving a critical gap in the literature.

While international frameworks provide valuable insights, they fail to account for the nuanced cultural and institutional dynamics of Mainland China. For example, practices from Western contexts may emphasize individual autonomy and open communication, which may not align with Chinese cultural norms that prioritize familial roles and collective decision-making in end-of-life matters (Kellehear, 2018; Wang et al., 2019). This disparity underscores the need for localized research and culturally relevant strategies to address the gaps in death education in Chinese higher education.

This study addresses this contextual gap by exploring the specific needs, perceptions, and barriers associated with death education in Mainland China. It aims to design a culturally sensitive and contextually relevant framework that bridges the disconnect between global best practices and local cultural considerations. By doing so, the research contributes to the broader discourse on death education while providing actionable solutions for higher education institutions in Mainland China.

1.2.2 Empirical Gap

Despite the growing global interest in death education, there remains a lack of empirical research that systematically explores its integration into higher education in Mainland China. While studies in Western contexts have demonstrated the effectiveness of death education in enhancing students' psychological resilience, cultural competence, and professional preparedness (Kellehear, 2018), similar empirical evidence is sparse in the Chinese context. Existing research in Mainland China primarily focuses on theoretical discussions or qualitative insights into cultural attitudes toward death (Zhang et al., 2020; Wang et al., 2019), with limited empirical data on how these attitudes translate into educational needs or barriers within higher education institutions.

Moreover, the studies that do exist in Mainland China often lack a comprehensive framework for assessing the effectiveness of death education programs. For instance, while some research highlights the psychological benefits of discussing death-related topics (Liu et al., 2021), there is little empirical evidence on how such programs influence students' professional competencies or their ability to navigate culturally sensitive end-of-life scenarios. This gap leaves educators and policymakers with insufficient data to design and implement effective death education curricula.

Another critical empirical gap lies in the evaluation of implementation strategies. Although international studies provide insights into best practices for integrating death education into higher education (Chen & Huang, 2022), there is a lack of empirical research examining how these strategies can be adapted to fit the cultural, institutional, and societal contexts of Mainland China. Questions about the most effective pedagogical approaches, the role of institutional support, and the impact of death education on student outcomes remain largely unanswered in the Chinese setting.

This research addresses these gaps by systematically investigating the educational needs, cultural considerations, and barriers to death education in Mainland Chinese higher education. Through qualitative and quantitative methods, it will yield empirical evidence to inform the design of a culturally sensitive framework for death education and evaluate its impact on students' psychological well-being, cultural competence, and professional preparedness. By filling these gaps, the study aims to contribute to both the theoretical and practical understanding of death education in the Chinese context.

1.2.3 Methodological gap

The existing body of research on death education, particularly in the context of Mainland China, is limited in its methodological scope. Much of the available literature relies heavily on qualitative approaches, such as interviews and focus groups, to explore cultural attitudes and theoretical perspectives on death education (Wang et al., 2019; Zhang et al., 2020). While these methods provide valuable insights, they often lack the robust, generalizable data necessary to inform the development and implementation of comprehensive educational frameworks.

Quantitative studies assessing the efficacy of death education programs are rare in the Chinese context. For instance, there is a lack of standardized instruments to measure the psychological, cultural, and professional outcomes of death education, such as students' resilience, cultural competence, or preparedness for end-of-life scenarios (Chen & Huang, 2022). This gap limits the ability to compare the effectiveness of different pedagogical approaches or to evaluate program outcomes systematically.

Additionally, existing research seldom adopts mixed-methods designs, which combine the depth of qualitative data with the breadth of quantitative findings. Mixed-

methods approaches could provide a more holistic understanding of both the subjective experiences and measurable outcomes of death education programs (Liu et al., 2021). For example, integrating surveys, case studies, and longitudinal tracking of student outcomes could yield richer insights into the long-term impact of such programs.

Another methodological limitation lies in the cultural adaptability of research tools and frameworks. Many existing studies borrow methodologies developed in Western contexts, which may not fully capture the unique cultural and institutional dynamics of Mainland China (Kellehear, 2018). Without culturally adapted instruments and context-specific approaches, findings may lack relevance or fail to address the nuanced needs of Chinese students and educators.

This study addresses these methodological gaps by employing a mixed-methods approach to explore the educational needs, barriers, and impacts of death education in Mainland China. Quantitative tools, including culturally adapted surveys and outcome measures, will be used alongside qualitative methods, such as in-depth interviews and focus groups, to ensure a comprehensive and culturally sensitive analysis. This approach aims to provide actionable, evidence-based recommendations for redesigning and implementing death education curricula in Mainland Chinese higher education.

1.2.4 Practical Gap

While the theoretical importance of death education in higher education is widely acknowledged, there remains a significant gap in its practical application, particularly in the context of Mainland China. Institutions face challenges in translating theoretical concepts into actionable and culturally sensitive curricula that address students' specific needs and societal expectations (Wang et al., 2019). This lack of practical implementation not only limits students' preparedness to handle end-of-life scenarios but also perpetuates cultural taboos surrounding discussions of death and dying.

Globally, several countries have developed structured death education programs that integrate theoretical knowledge with experiential learning, such as role-playing, case studies, and discussions on real-world scenarios (Kellehear, 2018). However, in Mainland China, such practical strategies are either non-existent or underdeveloped, with most educational efforts focusing on sporadic lectures or seminars that fail to provide

comprehensive training (Liu et al., 2021). Additionally, there is little guidance for educators on how to deliver such programs in a way that aligns with traditional cultural values while also challenging existing taboos.

The absence of institutional frameworks further exacerbates this gap. Higher education institutions often lack the necessary resources, training for educators, and support from stakeholders to design and implement death education programs effectively (Zhang et al., 2020). Moreover, there are few models or guidelines available to assist educators in integrating death education into existing curricula in fields like psychology, healthcare, and social work.

This practical gap also extends to evaluating the impact of death education. Without standardized frameworks for assessing outcomes such as students' psychological resilience, cultural competence, and professional readiness, institutions struggle to justify the value of such programs and secure broader support from stakeholders (Chen & Huang, 2022).

This study bridges the practical gap by proposing a culturally sensitive and contextually relevant educational framework for death education in Mainland Chinese higher education. It will provide actionable strategies for integrating this framework into existing curricula, supported by practical tools, pedagogical methods, and guidelines for educators. By addressing these practical gaps, the research aims to empower institutions to implement death education programs that are both effective and culturally appropriate.

In addition to pedagogical and institutional challenges, the practical gap is further reinforced by the absence of formal policy endorsement and standardized accreditation mechanisms within the Mainland Chinese higher education system. Unlike some international contexts where death education is supported through professional certification standards, national curriculum frameworks, or institutional guidelines, death education in Mainland China lacks systematic policy backing. This absence of regulatory and accreditation structures contributes to uncertainty in curriculum design, limits institutional commitment, and constrains sustainable implementation. Therefore, addressing the practical gap requires not only curriculum redesign but also alignment with policy-level recognition and institutional governance structures.

1.3 Objectives of Study

1.3.1 General Objective

This research aims to comprehensively understand and enhance death education within higher education institutions in Mainland China. Specifically, this study will delve into the specific educational needs and gaps in death education, examine the perceptions and cultural considerations of key stakeholders, and investigate the barriers to its implementation. Simultaneously, it will review international best practices and, based on this, develop a culturally sensitive and context-appropriate death education framework. This research is also dedicated to proposing feasible implementation strategies and assessing the potential impact of the framework on students' psychological well-being, cultural competence, and professional preparedness, ultimately promoting the healthy development of death education in higher education in Mainland China.

1.3.2 Specific Objectives

1. To explore and identify the educational needs and knowledge gaps in death education within higher education institutions in Mainland China.
2. To examine stakeholder perceptions, attitudes, and cultural considerations regarding the inclusion of death education in higher education curricula.
3. To investigate the implementation barriers including cultural, institutional, and societal factors that hinder the integration of death education in higher education.
4. To analyze and synthesize existing death education curriculum frameworks within and outside Mainland China.
5. To develop a culturally sensitive and contextually appropriate curriculum framework for death education in Mainland Chinese higher education.
6. To propose implementation strategies for integrating death education within higher education institutions.
7. To evaluate the impact of the redesigned death education curriculum on student outcomes.

1.4 Research Questions of the Study

Objective 1

-To explore and identify the educational needs and knowledge gaps in death education within higher education institutions in Mainland China.

RQ1: What are the current knowledge and skills gaps related to death education among students and faculty in higher education institutions in Mainland China?

RQ2: What specific educational needs do students and faculty express regarding death education in higher education?

Objective 2

-To examine stakeholder perceptions, attitudes, and cultural considerations regarding the inclusion of death education in higher education curricula.

RQ3: How do students, faculty, and administrators perceive the importance of death education in higher education?

RQ4: What cultural beliefs and societal attitudes influence perceptions toward integrating death education into higher education curricula?

Objective 3

-To investigate the implementation barriers including cultural, institutional, and societal factors that hinder the integration of death education in higher education.

RQ5: What are the primary implementation barriers to the adoption of death education in Mainland Chinese higher education institutions?

RQ6: How do these barriers differ across academic disciplines or institutional contexts?

Objective 4

-To analyze and synthesize existing death education curriculum frameworks within and outside Mainland China.

RQ7: What are the characteristics of existing death education curricula implemented

globally?

RQ8: What best practices can inform the improvement of death education frameworks in Mainland China?

Objective 5

-To develop a culturally sensitive and contextually appropriate curriculum framework for death education in Mainland Chinese higher education.

RQ9: What core components should a culturally adaptive death education framework include?

RQ10: How can the redesigned framework balance theoretical and practical dimensions effectively?

Objective 6

-To propose implementation strategies for integrating death education within higher education institutions.

RQ11: What strategies are most effective for integrating a death education curriculum into existing programs?

RQ12: What role do faculty training and institutional support play in successful implementation?

Objective 7

-To evaluate the impact of the redesigned death education curriculum on student outcomes.

RQ13: How does participation influence students' psychological well-being and coping ability?

RQ14: How does death education enhance students' cultural competence and professional preparedness?

1.5 Scope of Study

This study is dedicated to the development and preliminary exploration of a culturally sensitive death education framework, with its core research context strictly confined to the field of higher education in Mainland China. The overall scope of the study is defined by clear boundaries in research focus, target groups, geographical coverage, time frame, and data collection and analysis methods, while also taking into account the inherent limitations that may influence the research process and results.

In addition, the implementation phase of the proposed curriculum framework involves the use of virtual reality (VR) scenario simulations as an experiential learning tool. While VR enhances immersive learning and reflective engagement, its accessibility may be influenced by institutional technological infrastructure, financial resources, and faculty readiness. Therefore, the scope of this study is limited to institutions with basic technological support for simulation-based learning. The feasibility of large-scale implementation may vary across institutions depending on technological availability and resource allocation.

1.5.1 Research Focus Boundaries

The primary focus of this study is centered on the design of the culturally sensitive death education framework and its preliminary implementation effects in a selected number of universities. It does not extend its scope to explore a wide range of death education pedagogical models beyond the framework in question, nor does it cover non-higher education settings such as primary schools, secondary schools, or social education institutions. The research prioritizes verifying the rationality and initial applicability of the framework itself, rather than conducting a comprehensive comparison and evaluation of multiple death education approaches or expanding the application scenario to other educational levels.

1.5.2 Target Groups and Sample Scope

The research subjects mainly include students and faculty from a selection of universities in Mainland China. In terms of sample selection, stratified sampling is adopted to ensure a certain degree of representativeness within the selected scope; however, due to the vast territory of Mainland China and significant regional differences in cultural and

social backgrounds, the sample does not cover all types of higher education institutions nationwide (such as different levels of universities, institutions of different disciplines, and those in various regional locations). Additionally, although preliminary exploratory interviews are conducted with teachers and education administrators to collect their perspectives, the representation of these stakeholder groups is limited, and the study does not fully involve other potential relevant stakeholders (such as students' families, social welfare organizations related to death education, etc.) to comprehensively capture multi-dimensional viewpoints.

From an ethnic perspective, while the study attempts to consider cultural factors in the design of the death education framework, it does not delve into the nuanced cultural differences among all ethnic groups in Mainland China. As a result, the unique death-related cultural concepts and educational needs of specific ethnic minority groups are not fully integrated into the research scope, and the framework is mainly developed based on the general cultural context of Mainland China.

1.5.3 Geographical Scope

The geographical scope of the study is restricted to partial regions in Mainland China. In the experimental component of the research, universities within a specific geographic area are intentionally selected as the sample for in-depth investigation of the framework's application effects. This selection is to ensure the feasibility of on-site data collection and in-depth tracking, rather than covering universities across all provinces, autonomous regions, and municipalities directly under the Central Government in Mainland China. The limitation of this geographical scope is a result of factors such as the vastness of the country and regional cultural variations, which also means that the research results may not fully reflect the implementation conditions and adaptation needs of death education frameworks in different regional contexts.

1.5.4 Time Frame

The time frame of the study is limited to a specific short period. It focuses on the short-term implementation process of the death education framework, including the design stage, the preliminary promotion stage in selected universities, and the collection and analysis of short-term effect data. Due to time constraints, the study is unable to track the

entire process of long-term implementation of death education (such as tracking the changes in students' death concepts and psychological states over several years) or assess the sustained effects of the framework (such as whether the positive impacts of the education persist after students graduate). The field test of the framework also has a relatively short duration and limited scale, which cannot fully capture the complex challenges and dynamic changes that may arise in the long-term promotion and operation of death education programs.

1.5.5 Data Collection and Analysis Scope

In terms of data collection methods, the study mainly relies on self-reported data obtained through questionnaires and interviews. These two methods are the core means of collecting first-hand information from research subjects (such as students' perceptions of death education, faculty's teaching experience, etc.), but they do not include other data collection methods such as classroom observation records, long-term psychological assessment reports, or objective behavioral data. It should be noted that self-reported data is inherently susceptible to response bias, social desirability bias, and recall bias, which may affect the accuracy and reliability of the collected data to a certain extent.

In the aspect of data analysis, a combination of quantitative and qualitative methods is adopted. Quantitative analysis is mainly used to process questionnaire data (such as statistical analysis of students' satisfaction with the framework, changes in knowledge scores before and after education, etc.), while qualitative analysis focuses on interpreting interview content (such as summarizing the viewpoints and suggestions of faculty and administrators on the framework). The analysis process is centered on assessing the effectiveness of the death education curriculum framework, rather than conducting in-depth exploration of other irrelevant topics (such as the historical development of death education in China, the comparison of death education systems in other countries, etc.). At the same time, the analysis of cultural factors is limited to the general cultural background of Mainland China and does not conduct in-depth discussions on the multi-faceted cultural perspectives of all ethnic groups.

1.6 Significance of Study

This study holds significant value for multiple stakeholders, including educators, policymakers, students, and society at large. By addressing the educational, cultural, and institutional gaps in death education, this research contributes to the development of a more culturally sensitive and effective educational framework tailored to the unique context of Mainland China.

1.6.1 Advancing Educational Frameworks

The study aims to fill a critical gap in higher education by proposing a structured, culturally relevant death education framework. By doing so, it provides higher education institutions with a practical model for integrating death education into existing curricula, fostering students' professional preparedness and emotional resilience in fields such as healthcare, psychology, and social work.

1.6.2 Providing Actionable Recommendations

This study goes beyond offering a theoretical framework by also providing educators with practical, step-by-step guidance on how to implement death education in their classrooms. This includes sample lesson plans, culturally sensitive teaching methods, and assessment tools to facilitate effective learning and teaching.

1.6.3 Enhancing Psychological Well-being

By addressing the psychological challenges associated with death, this study can contribute to reducing death anxiety and enhancing students' emotional resilience. A structured death education curriculum has the potential to improve students' ability to process grief, loss, and other emotionally charged situations, which are critical for both personal growth and professional development.

1.6.4 Encouraging Dialogue on a Taboo Subject

By focusing on death education, the study promotes openness and dialogue on a topic that is often considered taboo in Chinese society. This contributes to a broader

cultural shift, encouraging individuals and institutions to address death-related issues with sensitivity and awareness.

1.6.5 Providing Evidence-Based Insights for Policymakers

The findings from this research will provide policymakers with evidence-based recommendations for the inclusion of death education in higher education curricula. It highlights the societal need for such programs and offers actionable strategies to overcome institutional and cultural barriers.

1.6.6 Contributing to Global Scholarship

While death education has been extensively studied in Western contexts, this study adds a unique perspective by focusing on the cultural and societal specificities of Mainland China. The findings can enrich global discussions on death education, offering insights that may be adapted to other culturally sensitive settings.

1.6.7 Promoting Cultural Competence

Understanding death and its associated cultural dimensions is essential for professionals working in multicultural and sensitive environments. This study will help students develop cultural competence, enabling them to navigate and respect diverse beliefs and practices related to death, grief, and end-of-life care.

1.6.8 Supporting Professional Development

For educators and practitioners, the study provides a toolkit of culturally appropriate strategies and pedagogical methods for teaching death education. This supports their professional development and equips them with the skills to address complex, death-related issues effectively.

The significance of this study lies in its ability to bridge theoretical knowledge with practical applications, addressing an overlooked yet critical aspect of higher education in Mainland China. Its contributions have the potential to impact not only academia but also professional practice and societal attitudes toward death and dying.

1.7 Definition of Key Terms

1.7.1 Death Education

Conceptual Definition: Kurlychek defined death education as a process that promotes awareness of death as a part of life. It provides a framework to help students analyze facts about death and integrate them into their own lives. Attitudes are reflected in daily actions (Kurlychek, 1977). Xu & Huang believed that death education arose due to contemporary individuals pondering the meaning of life (Xu & Huang., 2013).

Operational Definition: In this study, death education is to deliver death-related knowledge and information to learners through a continuous teaching process, guide them to understand death scientifically, view death correctly, integrate this attitude and concept into daily behaviour, and guide them To deal with death scientifically, cherish life more. Death education can be a form of preventive teaching aimed at reducing problems caused by death and promoting a value and appreciation of life.

1.7.2 Curriculum Framework

Conceptual Definition: Curriculum framework mainly refers to the organization and structure of curriculum elements. Refers to the curriculum framework that constructs curriculum elements based on specific training objectives. The elements of the curriculum framework include a curriculum objective system, curriculum content organization, and curriculum implementation and evaluation.(Xu et al., 2017; Xu, 2019; Zhang et al., 2019)

Operational Definition: In this study, the curriculum framework refers to the curriculum framework of death education that can be implemented in higher education in mainland China. According to the previous research on the curriculum framework, it mainly includes four significant dimensions: curriculum objectives, curriculum content, curriculum implementation, and curriculum evaluation. Within the framework of these large dimensions, the following will be elaborated: (1) Course overview: Briefly introduce the name, subject, grade or applicable objects of the course, as well as the main objectives and importance of the course; (2) Learning objectives: Clarify the learning objectives of the course, that is, the knowledge that students are expected to achieve at the end of the course, skills and attitudes. Learning objectives should be clear, specific, and measurable

so that teachers and students know where learning is going and what is expected. It also clearly states the relationship between learning objectives and teaching activities and guides teachers in designing them to achieve learning objectives; (3) Syllabus: The syllabus is the overall course content planning and learning progress. It can be divided into units or modules, each containing a specific theme or learning focus; (4) Course content: List the specific content of each unit or module in detail, including the knowledge, concepts, principles, skills and Methods, etc.; (5) Teaching methods: Describe the methods and strategies that teachers use in teaching in the classroom, including lectures, discussions, experiments, case studies, group activities, role-playing, etc.; (6) Learning resources: List the students' learning process. Various resources are required, including textbooks, reference books, learning websites, multimedia materials, etc.; (7) Evaluation methods: Determine the evaluation methods for students' learning outcomes, including examinations, assignments, projects, group reports, oral presentations, etc. The evaluation method should be consistent with the learning objectives and be able to comprehensively and objectively evaluate the student's academic performance; (8) Time arrangement: Plan the study time allocation of the course, including the study time of each unit or module, examination or assessment time and the start of the course and end time; (9) Teaching evaluation: Design the course's teaching evaluation method to evaluate the teaching quality and effect. Teaching evaluation can include student feedback on the course, teacher self-assessment, peer review, etc.; (10) Interdisciplinary integration: consider the connection between the course and other disciplines, and explore possible interdisciplinary integration to promote students' comprehensive learning and understanding;(11) Adaptive teaching: Consider students' differences, including learning styles, interests, abilities, etc., in order to adopt appropriate teaching strategies and teaching materials.

1.7.3 Death Education Curriculum

Conceptual Definition: On a global scale, death education has long been established as an integral component in many curricula. Information gathered in the late 1970s indicated that the United States alone offered several hundred to over a thousand death education programs annually (Crase, 1977; Knott, 1979). Although these data were collected during the heyday of the death education movement, subsequent surveys indicate the continued presence of death education across various disciplines (Kitchen, 2022; Rodríguez Herrero et al., 2022; Sonbul & Çelik, 2023) . Current death education programs

range from teaching units in kindergarten (Xu et al., 1999), elementary schools (Huang, 2022), and middle schools (Bao, 2023; Zhang, 2019) to courses in colleges (Zorotovich & Cohen, 2022) and universities (Biancalani et al., 2023; Zhang & Kou, 2022), as well as a variety of continuing education or public education workshops and conferences (Testoni et al., 2021a; Testoni et al., 2019).

In the field of death education curriculum, there are many mature studies, and their typical logic is as follows: firstly, clarify the goals of death education; secondly, determine teaching strategies suitable for the expected goals; finally, use satisfactory experimental procedures to evaluate the impact of the program (Chen & Huang, 2014; Huang, 2022; Lan et al., 1997; Tang et al., 2015; Zhong, 1994).

At the goal-oriented evaluation level, most studies emphasize changes in learners at the cognitive, emotional, or behavioural levels (de la Herrán Gascón et al., 2022; Kitchen, 2022; Menzies & Veale, 2022; Ronconi et al., 2023; Zhou et al., 2022). Cognitive variables include attitudes or values toward death-related issues such as euthanasia, abortion, and suicide (Kitchen, 2022; Li et al., 2022). Emotional variables assess fear and anxiety about death (Cybulska et al., 2022; Rodríguez Herrero et al., 2022; Smilie, 2022; Weaver et al., 2022). Behavioural outcomes focus on the ability to cope with death—including coping with loss, understanding grief and support systems, death preparation, changes in personal habits, and willingness to discuss death (Rodríguez Herrero et al., 2022) —or changes in job-related skills among healthcare workers (Gül et al., 2022; Hagelin et al., 2022).

At the curriculum strategies level, course implementation includes didactic and experiential courses. Courses are diverse, encompassing visits to morgues or cemeteries, interviews with terminally ill patients, watching emotionally charged films, role-playing, personal awareness exercises such as death fantasies, completing personal death certificates, collective discussions on death experiences and feelings, or didactic demonstrations and readings related to death (Bowie, 2000; Durlak & Riesenberg, 1991; Kim et al., 2016). These strategies aim to implement changes in students' cognitive, emotional, and behavioural states toward death.

Operational Definition: The death education curriculum aims to induce anticipated changes in students' cognitive, emotional, and behavioral states regarding death, fostering the development of accurate cognitive, emotional, and behavioral states about death. It

encompasses the dimensions of death education curriculum goals, curriculum content, curriculum implementation strategies, and curriculum evaluation.

1.8 Theoretical Framework

The theoretical framework of this study integrates several key theories that provide a foundation for understanding the need, barriers, and impact of death education in Mainland Chinese higher education. These theories guide the investigation into how death education can be effectively integrated, its cultural implications, and the psychological and professional benefits for students.

1.8.1 Macro Context: Ecological Systems Theory

Bronfenbrenner's Ecological Systems Theory (1979) emphasizes the complex interplay between individuals and their environments, suggesting that people's behavior is shaped by multiple layers of influence, including societal, institutional, and cultural factors. This theory is particularly relevant when exploring the barriers to implementing death education in Mainland China, as it highlights the importance of understanding how societal values, institutional structures, and familial norms influence educational practices and students' willingness to engage in death education.

Bronfenbrenner's Ecological Systems Theory examines how individuals are influenced by different layers of their environment, including the family, school, community, and broader societal factors. This theory is crucial for understanding the various institutional, cultural, and societal forces that shape the implementation of death education in Mainland China. These forces can either facilitate or hinder the integration of such programs in higher education institutions.

Application to the Study: Ecological Systems Theory helps contextualize the challenges and opportunities that higher education institutions face when attempting to introduce death education. For example, the family's role in shaping students' views on death, societal taboos surrounding the topic, and institutional resistance all play a part in how death education is perceived and implemented. By examining these layers, the study

can uncover strategies for overcoming these challenges, such as fostering institutional support for death education and engaging families in discussions about its value.

Key Concepts: Microsystem, mesosystem, exosystem, macrosystem, socio-cultural influences.

1.8.2 Social Influences: Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (Ajzen, 1991) provides a framework for understanding the factors that influence individuals' intentions and behaviors, particularly in relation to social and cultural norms. TPB is particularly relevant to this study, as it can explain the attitudes, subjective norms, and perceived control that influence both students' willingness to engage with death education and educators' willingness to incorporate it into the curriculum. The theory also helps to explore the social and cultural factors that may hinder or facilitate the integration of death education.

The Theory of Planned Behavior focuses on understanding the factors that influence an individual's intention to perform a behavior, particularly when that behavior is subject to external influences (Ajzen, 1991). This theory suggests that attitudes, subjective norms, and perceived behavioral control shape the intention to engage in specific behaviors. In the case of death education, these factors can help explain why students may or may not choose to participate in death-related discussions or coursework.

Application to the Study: In Mainland China, death remains a taboo subject. Students may be reluctant to discuss death or influenced by societal norms discouraging open conversations about mortality. Understanding these factors helps educators tailor death education to align with student attitudes, address cultural concerns, and reduce barriers to engagement. For instance, framing death education as a professional skill can improve students' perceived behavioral control and increase willingness to participate.

Key Concepts: Attitudes, subjective norms, perceived behavioral control, intention, behavior.

1.8.3 Individual Perceptions: Health Belief Model (HBM)

The Health Belief Model (HBM) explains individuals' readiness to address health-related issues, including end-of-life concerns. The HBM posits that decisions to engage in health behaviors are influenced by perceptions of susceptibility, severity, benefits, and barriers (Rosenstock, 1974). In death education, it can help understand students' perceptions of the importance of death education and the barriers they perceive, such as cultural resistance or fear of confronting mortality.

The Health Belief Model is a psychological theory that seeks to explain and predict health-related behaviors by focusing on individuals' perceptions of health threats and the benefits of preventive actions (Rosenstock, 1974). In death education, this model can help explain why students might resist or avoid engaging with death-related topics. If students perceive death as a distant or unimportant topic, they may not see the value of learning about it, thus hindering the integration of death education in the curriculum.

Application to the Study: The Health Belief Model can inform strategies for overcoming resistance to death education by addressing students' perceptions of susceptibility and severity regarding death. For instance, if students understand that death is a natural and inevitable part of life, and that being prepared can help them cope with the emotional challenges associated with it, they may be more likely to embrace the curriculum. By emphasizing the benefits of learning about death, such as improved emotional resilience and professional readiness, educators can motivate students to engage with the material.

Key Concepts: Perceived susceptibility, perceived severity, perceived benefits, perceived barriers, self-efficacy.

1.8.4 Learning Theory: Constructivist Learning Theory

The constructivist perspective on learning, heavily informed by the ideas of Piaget and Vygotsky, emphasizes the active role of the learner in building knowledge through social and experiential processes (Ayman-Nolley, 1978). This theory supports the idea that death education should not merely be an academic exercise but an interactive process where students engage with the material, reflect on their own cultural beliefs, and actively

participate in discussions about death. Constructivism emphasizes experiential learning, which is essential in teaching sensitive topics like death.

Constructivist learning theory from Piaget and Vygotsky posits that learners build knowledge through active engagement, reflection, and social interaction. In death education, this means students should explore death through discussions, role-plays, and case studies rather than passively receiving information. Such engagement helps them form personal understandings of death and promotes deeper internalization.

Application to the Study: In death education, the constructivist approach advocates for a curriculum that encourages students to explore their thoughts and feelings about death through interactive and experiential learning. For example, instead of simply reading about death, students might participate in group discussions, analyze case studies of end-of-life scenarios, or engage in reflective exercises. These activities not only promote deeper understanding but also help students develop the emotional and psychological tools necessary for dealing with death in both their personal and professional lives.

Key Concepts: Active learning, reflection, social interaction, experiential learning, problem-based learning.

1.8.5 Disciplinary Foundation: Thanatology and Death Education Theory

Thanatology, the study of death and dying, serves as the primary theoretical framework for understanding the importance of death education. This theory emphasizes the need to explore death-related topics to help individuals cope with their mortality, reduce death anxiety, and foster resilience (Kellehear, 2018). Thanatology provides the backdrop for examining the psychological and emotional benefits of death education, especially in preparing students for personal and professional encounters with death.

Thanatology, which studies death and dying, underlies the psychological and educational significance of death education. It suggests that discussing death helps individuals face mortality, alleviate anxiety, and enhance coping with grief and loss (Kellehear, 2018). In higher education, death education enables students to develop deeper understanding of death, preparing them to address these issues in personal and professional contexts, particularly in healthcare, social work, and psychology.

Application to the Study: In Mainland China, death remains a taboo subject in many social and educational settings. Integrating thanatology into the curriculum provides students with the tools to explore death from a psychological and emotional perspective. This theory emphasizes the need for educators to engage students in open discussions about death to reduce anxiety, foster emotional maturity, and prepare them for real-world end-of-life situations.

Key Concepts: Death anxiety, grief, end-of-life care, psychological resilience, personal preparedness.

1.8.5.1 Purpose of Thanatology Key Concepts in This Study

In this study, the key concepts derived from thanatology such as death anxiety, grief processing, end-of-life care, psychological resilience, and personal preparedness are not presented merely as theoretical descriptions. Rather, they function as analytical anchors that guide both curriculum design and empirical evaluation.

First, these concepts inform the cognitive, emotional, and behavioral dimensions embedded in the proposed curriculum framework. For example, “death anxiety” and “neutral acceptance” directly correspond to measurable attitudinal constructs assessed using the Death Attitude Profile-Revised (DAP-R), while “coping with death” and “resilience” are operationalized through the Coping with Death Scale (CDS). In the context of medical students, professional preparedness toward end-of-life care is further measured through the Frommelt Attitudes Toward Care of the Dying Scale, Form B (FATCOD-B). Thus, the theoretical constructs derived from thanatology are empirically translated into measurable outcomes.

Second, thanatology provides the psychological justification for embedding death education within higher education in Mainland China, where death remains culturally sensitive and frequently avoided in formal educational discourse. By situating death education within a scientifically grounded discipline, the study reframes death from a taboo topic to a legitimate subject of psychological inquiry and professional preparation.

Third, the key concepts shape the structural design of the four-dimensional curriculum framework (“cognition, emotion, ability, and value”). Cognitive understanding corresponds to death knowledge and meaning construction; emotional processing addresses anxiety and

grief; ability emphasizes coping and communication competence; and value orientation fosters acceptance and life meaning reconstruction.

Therefore, within this thesis, thanatology serves not only as a disciplinary foundation but as a conceptual bridge linking cultural context, curriculum design, and measurable educational outcomes.

1.8.6 Cultural Adaptability: Cultural Competence Theory

Cultural competence theory is central to understanding how death education must 1be adapted to fit the cultural values, beliefs, and practices of Mainland China. This theory asserts that professionals must understand and respect the cultural dimensions of death to effectively serve diverse populations (Sue et al., 2019). In the context of Mainland China, where Confucian and Buddhist views strongly influence attitudes towards death, death education must be culturally sensitive and tailored to address the specific cultural norms and taboos surrounding death.

Cultural competence theory highlights the importance of understanding diverse cultural perspectives when delivering education and healthcare services. In Mainland China, cultural beliefs about death are deeply rooted in Confucian, Buddhist, and Taoist traditions, where death is often viewed through a lens of reverence, filial duty, and ancestral worship (Zhang et al., 2020). The challenge for death education in this context is to address death-related topics without infringing upon these deeply held beliefs.

Application to the Study: Death education in Mainland China needs to be culturally sensitive, respecting local traditions while promoting openness about the subject. Cultural competence theory guides the adaptation of death education content so that it is both respectful and effective, ensuring that students from diverse cultural backgrounds can engage with the material in a meaningful way. Educators must understand these cultural nuances and incorporate them into their teaching methods to avoid alienating students or perpetuating cultural stigmas surrounding death.

Key Concepts: Cultural sensitivity, multicultural awareness, culturally competent care, values of respect, and familial roles in death.

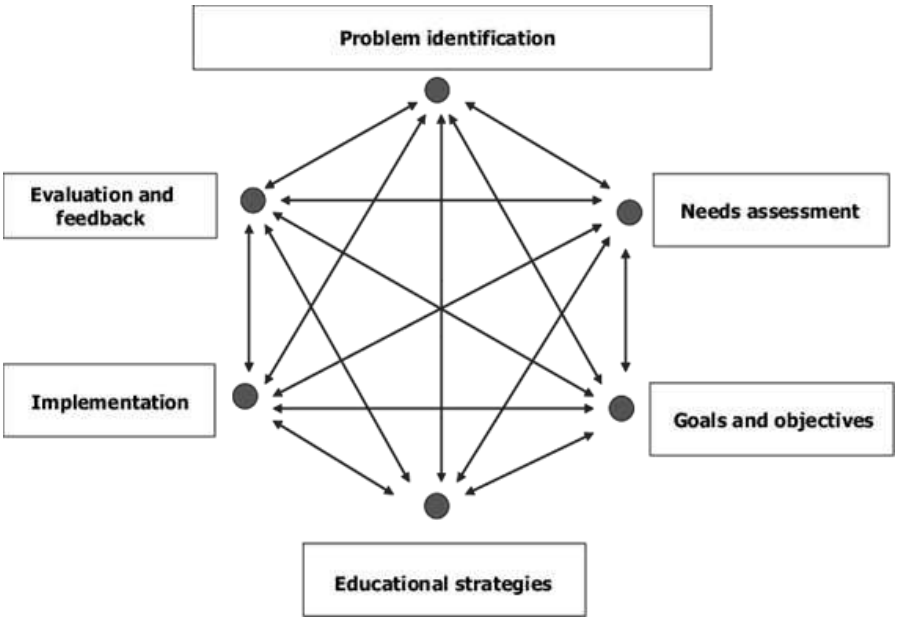
1.8.7 Curriculum Development Framework: Kern's Six-Step Approach

Kern's six-step approach (Kern et al., 2016), a curriculum design tool, clarifies components necessary for developing or modifying curricula. The model consists of six cyclical and interdependent stages guiding curriculum design. First, problem identification identifies core issues to address by analyzing gaps between current and desired states. Needs assessment then explores stakeholder needs from multiple perspectives, establishing a basis for defining goals. Based on this, designers articulate educational aims and learning outcomes. The instructional strategies phase focuses on selecting teaching methods to achieve these goals. The curriculum then moves into implementation. Finally, evaluation and revision identify issues and make adjustments through continuous feedback to maintain effectiveness and relevance. Although developed for medical education, Kern's approach offers valuable insights for curriculum development across various fields.

Application to the Study: In death education, Kern's six-step approach offers a systematic framework. It emphasizes that curriculum development should be student-centered, considering social, cultural, economic, and political contexts. Applying it first requires identifying deficiencies in current death education, such as students' misconceptions and a lack of knowledge and skills. Then, it involves assessing the needs of students, educators, and the community to set specific curriculum goals. The model encourages diverse teaching methods and continuous refinement through evaluation to better match students' actual needs. It also emphasizes dynamism, encouraging adjustments based on evaluation results, resource changes, and learner needs. Kern's approach provides a logical framework for curriculum design and ensures the effectiveness, relevance, and sustainability of death education courses. It supports developing death education for diverse educational settings and prompts educators to reflect on and improve teaching practices to better serve learners.

Key Concepts: Student-Centered, Multi-Perspective, Contextual Factors, Systematic Framework

Figure 1- 1:
Six-step approach to curriculum development



Source: Kern et al. (2016)

1.8.8 Integration of Theories

This study's theoretical framework is grounded in the unique sociocultural context of mainland China, acknowledging the profound influence of cultural norms and values on the implementation of death education. Ecological systems theory serves as the foundational framework, positing socio-culture as a macro-system that not only shapes attitudes and perceptions toward death but also impacts the formulation and execution of educational policies. Within this socio-cultural backdrop, the theory of planned behavior (TPB) and the health belief model (HBM) are intertwined, jointly analyzing students' and educators' intentions and motivations regarding participation in death education. The TPB focuses on explaining how attitudes, subjective norms, and perceived behavioral control influence individuals' participation decisions, while the HBM concentrates on analyzing students' perceptions of susceptibility to and the severity of death, as well as the benefits and barriers associated with learning about death, thereby elucidating the psychological mechanisms underlying their engagement or resistance to death education.

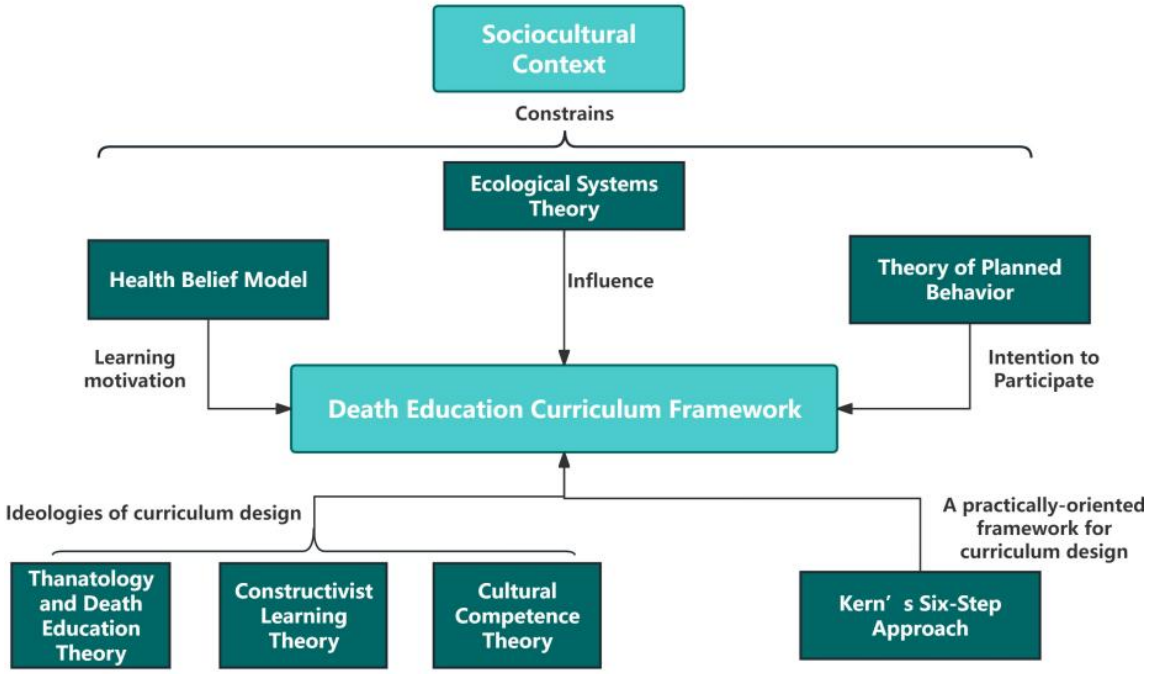
To redesign an effective death education curriculum framework, this study integrates constructivist learning theory, thanatology, and cultural competence theory.

Constructivist learning theory advocates for a student-centered approach, emphasizing active and experiential learning, thus guiding educators in designing more engaging and participatory instructional strategies. Thanatology provides a robust psychological basis for curriculum content, assisting students in understanding death, coping with grief, and developing resilience. Cultural competence theory ensures the cultural sensitivity of the curriculum content and pedagogical methods, enabling them to effectively align with the cultural values and beliefs prevalent in mainland China.

These interrelated theories guide this study, aiming to understand the needs, barriers, and cultural considerations of death education curricula in mainland China. The combination of thanatology and cultural competence theory underscores the importance of cultural adaptation in addressing death-related issues, emphasizing death education that respects local values. Constructivist learning theory and the HBM offer insights into instructional strategies and student psychology. The integration of the TPB and ecological systems theory helps explain institutional, cultural, and social factors affecting the acceptance of death education in higher education, forming a comprehensive analytical framework. Furthermore, Kern's six-step curriculum development approach provides a systematic process guiding this research from problem identification and needs assessment to goal setting, strategy selection, implementation, evaluation, and revision, ensuring scientific rigor and effectiveness.

Based on the comprehensive application of these theories, this study seeks to develop a holistic and culturally sensitive death education framework that not only focuses on students' psychological well-being but also aligns with the unique cultural and institutional dynamics of mainland China. This framework endeavors to overcome cultural barriers, provide appropriate pedagogical approaches, and ultimately promote the effective implementation of death education and students' holistic development in higher education in mainland China.

Figure 1- 2:
Theoretical Framework of the Study



1.9 Organization of Study

This research is structured into five comprehensive chapters, each designed to systematically address the research objectives and provide a coherent flow from identifying the problem to proposing a solution. The organization is as follows:

Chapter 1: Introduction

This chapter introduces the broader context of the study, outlining the background and significance of death education within the unique cultural and institutional setting of Mainland Chinese higher education. It presents the problem statement, highlighting the contextual, empirical, methodological, and practical gaps in the current landscape of death education. The chapter further delineates the research objectives and corresponding questions, defines the scope and limitations of the study, and explains the key terms used throughout. It concludes by establishing the multi-faceted theoretical framework that underpins the entire investigation.

Chapter 2: Literature Review

Chapter 2 provides a critical and extensive review of existing scholarly work relevant to death education. It explores global perspectives and best practices, before narrowing its focus to the current state, challenges, and nascent developments of death education in Mainland China. The review synthesizes findings on cultural attitudes toward death, existing curricular frameworks, and identified needs and barriers. This chapter aims to situate the current study within the broader academic discourse, identifying the precise knowledge gaps that this research seeks to fill.

Chapter 3: Research Methodology

This chapter details the research design and methods employed to collect and analyze data. It will describe the adoption of a mixed-methods approach, integrating qualitative and quantitative strategies to ensure a comprehensive and culturally sensitive analysis. The section will specify the study's population and sampling procedures, data collection instruments (e.g., surveys, interview protocols, focus group guides), and data analysis techniques (e.g., statistical analysis, thematic analysis). Ethical considerations for conducting research on this sensitive topic will also be thoroughly discussed.

Chapter 4: Findings, Analysis, and Discussion

Chapter 4 is dedicated to presenting the empirical findings derived from the data collection phase. The results will be organized according to the key themes of the study: the identified educational needs and gaps, stakeholder perceptions and attitudes, prevailing barriers, and etc. The findings will be rigorously analyzed and discussed in relation to the theoretical framework established in Chapter 1 and the existing literature reviewed in Chapter 2. This chapter will interpret what the data means for the development of a culturally adapted death education curriculum framework.

Chapter 5: Conclusions, Implications, Limitations, and Recommendations

The final chapter synthesizes the key outcomes of the study, revisiting the original research aims and questions. It presents a culturally responsive curriculum framework for death education in Mainland Chinese higher education, developed based on the findings from prior chapters. The proposed framework is validated through a quasi-experimental study designed to assess its effectiveness. Furthermore, the chapter discusses theoretical,

practical, and policy implications, acknowledges research limitations, and suggests meaningful directions for future research.

This structure ensures a coherent progression from empirical inquiry and analysis to the proposal and validation of an educational framework, offering a comprehensive examination of death education tailored to the Chinese context.

CHAPTER 2:

LITERATURE REVIEWS

2.1 Introduction

This chapter aims to systematically review existing research related to death education, beginning with an examination of global theoretical and practical approaches. It then focuses on the unique cultural context of Mainland China, exploring how this context shapes perceptions of death and constitutes a core challenge for the development of death education. Subsequently, the chapter analyzes the importance of cultural sensitivity in teaching practices and future directions, synthesizes the psychological and professional benefits of death education, and identifies specific curriculum needs within higher education in Mainland China, as well as barriers and potential countermeasures in its implementation. Finally, by comparing global and local curriculum practices, this chapter lays a solid theoretical foundation for the subsequent redesign of a culturally adaptive death education framework tailored to universities in Mainland China.

2.2 Global Perspectives and Practices in Death Education

Death education is a pedagogical framework intended to foster individuals' understanding, acceptance, and ability to navigate the experience of death; it is not limited to the scientific or medical study of mortality.(Lan & Wang,2024) .It includes various aspects pertaining to death, such as: Cognitive Dimension: Comprehending the concepts of death, its processes, cultural importance, and societal ramifications (Joy et al., 2024) . Affective Dimension: Regulating worries, sadness, dread, and other feelings related to death, while cultivating coping strategies(Ronconi et al., 2023).The development of the capacity to manage death-related situations and adjust to related activities and professional practices is the main focus of death education's practical orientation (Blunt & Kafatos, 2019; Cheong et al., 2020; Sutherland, 2019).Through a life-span development lens, death

education seeks to awaken an individual's consciousness of life's inherent worth and to nurture their personal development (Hui & Phei, 2022; Testoni et al., 2020).

Its objectives are for the purpose of:Alleviate Death Anxiety and Fear: By fostering a rational understanding of death as a natural part of the life cycle, death education helps individuals reduce their anxiety and fear of mortality(Bianco et al., 2024). Develop Adaptive Capacity and Emotional Resilience: Death education gives people the psychological fortitude they need to deal with loss and grief while also offering the essential psychological support methods (Joy et al., 2024; Ma et al., 2024). Develop Humanistic Concern and Empathy: People who study and think about death are better able to appreciate and comprehend the various cultural customs and beliefs around it, which in turn promotes compassion for the dying and their families(Mensah, 2024).Enhance Professional Skills: Death education assists medical and social work professionals in developing and improving their knowledge of bereavement counseling, end-of-life care, and associated communication(Yoong et al., 2023).

In Western countries such as the United States, death education programs have been implemented in various academic disciplines, including nursing, psychology, and social work, with the goal of helping students confront their own mortality and understand the psychological and cultural dimensions of death (Neimeyer, 2012).They utilize many interactive teaching methods, such as role-playing, case analysis, reflective journaling, group discussions, and experiential learning.These methods help students engage emotionally and intellectually with the concept of death, fostering empathy and preparing them to support others through grief and loss (Kastenbaum, 2000). "Heavily influenced by American models, UK death education, rooted in the 'Death Awakening' philosophy, focuses on the integration of death education within various subjects while advocating for the implementation of national bereavement education(Dawson et al., 2023;Dickinson & Paul, 2015).Many other countries are also progressively integrating death education into their national education systems (Shi et al., 2024), and are beginning to address the impact of cultural diversity on death education(Rodríguez Herrero et al., 2022; Testoni et al., 2021b)

Although death education has advanced significantly in Western countries, its propagation and evolution in other non-Western nations, including mainland China,

encounter substantial obstacles. The primary sources of these barriers are:Cultural Prohibitions: In many non-Western societies, death is considered a taboo topic. The open discourse on death is frequently regarded as unfavorable, obstructing the broad implementation of death education (Pun et al., 2024). Social Norms: Conventional views of life and death, encompassing ideas of "good death" and "bad death," shape personal perceptions of death. Engaging in discourse about death may be perceived as disrespectful to the deceased (Jiang et al., 2024; Xu et al., 2024). Educational Resources: Numerous nations are deficient in competent educators and suitable instructional materials for death education. Furthermore,a low priority for death education is often reflected in the educational system (Yuan & Yang, 2024).

Notwithstanding these obstacles, global death education is demonstrating several favorable advancements: Interdisciplinary techniques are increasingly prevalent, amalgamating insights from psychology, sociology, philosophy, ethics, and medicine (Zhang et al., 2024). Increasing recognition of cultural differences in perceptions of mortality is encouraging educators to integrate cultural sensitivity into curriculum development (Wong et al., 2020; Lan & Wang, 2024). Technological solutions, including virtual reality and online learning platforms, are being investigated to improve the interactivity and accessibility of death teaching (Blomstrom et al., 2022).The scope of death education is extending from professional environments into communities, as groups provide workshops and talks to enhance public knowledge of these critical problems(Kim & Kim, 2021).

Overall,There is currently a growing global appreciation for death education, which is increasingly recognized as essential for fostering individual comprehension of life's significance, cultivating sound psychological health, and facilitating a peaceful approach to death. Despite the existence of varied cultural perspectives on death and dying, the fundamental aim of death education remains unchanged: to assist individuals in comprehending, accepting, and coping with mortality. As global attention on death-related matters intensifies, future death education will likely prioritize cultural sensitivity, interdisciplinary collaboration, technological innovation, and community involvement to meet individual needs in different cultural backgrounds and promote respect and care for life in the whole society.

2.3 Death Education in Mainland China: Cultural Considerations

The trajectory of death education in mainland China is significantly influenced by local cultural influences, resulting in notable distinctions from Western countries, despite the fact that it aligns with global trends (Li & Ma, 2022). Systematic research and practice in death education remain comparatively underdeveloped, despite the flourishing of life education, as a result of traditional Chinese views on life and death, as well as social norms (Lan & Wang, 2022344) . This section explores the distinctive cultural context of mortality education in mainlGand China.

2.3.1 The Complex Reciprocal Relationship of Life and Death in Traditional Chinese Culture

Life and death are not perceived as antagonistic in traditional Chinese culture; rather, they are interconnected and influence perspectives on mortality (Liu & Li, 2023; Tang et al., 2022). Confucianism's emphasis on filial piety and family cultivates a culture that prioritizes life education (Fang, 2021; Liu & Li, 2023). Conversely, Chinese culture exhibits a multifaceted perspective on mortality, as evidenced by its societal avoidance and the diverse philosophical perspectives of Daoism and Buddhism (Luo & Gao, 2023). Chinese perspectives on life and death are influenced by Confucianism, Daoism, and Buddhism. Confucianism prioritizes ancestral veneration (Han, 2023); Daoism emphasizes the acceptance of natural laws, with a particular emphasis on the preservation of life(Wu, 2024); and Buddhism provides a framework through reincarnation(Tsai et al., 2023). These philosophies provide solace, but they do not provide the motivation to directly confront death (Huo, 2024).

The philosophical conception of life and death as an interwoven and morally regulated continuum has significant implications for modern curriculum implementation. While this worldview promotes reverence and ethical reflection, it simultaneously contributes to the avoidance of explicit death-related discourse within formal educational settings. In contemporary higher education institutions, where structured curricula require clearly defined learning outcomes and open analytical discussion, the traditional integration of death within moral, familial, and metaphysical frameworks may inhibit its treatment as a standalone academic subject. As a result, death education encounters cultural hesitation, institutional caution, and pedagogical ambiguity, which collectively function as barriers to systematic curriculum development and implementation.

2.3.2 The Growth of Life Education: The Subordination and Underdevelopment of Death Education

Life education is the primary focus of China's educational system, which emphasizes growth and investigates the positive aspects of life (Guo, 2023). Nevertheless, this has resulted in a developmental imbalance, as systematic death education is substantially deficient (Lan & Wang, 2024; Liu & Li, 2023). Cultural taboos, social norms, and an overemphasis on life's positive aspects are the fundamental causes of this imbalance, which has resulted in the marginalization of death education (Liu et al., 2023). As a result, death education lacks formal curricula, teacher training, and research support (Li, 2024), contributing to fear, anxiety, and a lack of rational understanding (Bai, 2021), and often being seen as subordinate to life education, thus unable to explore death ' s nature and meaning (Lan & Wang, 2024).

2.3.3 The Specific Predicaments of Death Education Shaped by Cultural Influences

Within the Chinese cultural context, the implementation of death education faces unique challenges.

Societal Taboo as a Barrier to Death Education: In China, the term "death" is considered inauspicious, and the prevailing societal taboo against it, in conjunction with social norms that limit discussions about death in public and familial contexts, creates a substantial obstacle to death education. This deeply ingrained taboo and these restrictive norms not only limit understanding and create an aversion to death, but also imped the widespread adoption of death education by inhibiting the expression of genuine emotions and the access to relevant knowledge, further reinforcing fear and anxiety (Tu et al., 2022; Zhang, 2022) .

Preoccupation with a “Good Death”: In addition, the Chinese cultural dichotomy between a "good death" and a "bad death" influences individuals' perspectives on mortality, with a general preference for "dying of old age in one's own bed." Grief, dread, and anxiety are more likely to manifest when confronted with unnatural deaths. By impeding the acceptance of a variety of forms of death, this preoccupation with a "good death" complicates death education (Renfu, 2024; Bai, 2021).

Blurred Boundaries Between Life and Death: Lastly, the absence of a profound cultural foundation for the investigation of death itself is a consequence of the indistinct boundaries between life and death in traditional Chinese culture, which frequently regard them as two sides of the same coin (Huang, 2022; Wei et al., 2023). This ambiguity, which is a reflection of Chinese cultural wisdom, complicates death education, requiring the preservation of tradition while concurrently pursuing new discoveries (Liu & Li, 2023).

2.3.4 Culturally Influenced Development of Death Education Curriculum Practices

The advancement of death education in mainland China faces obstacles due to the previously mentioned cultural taboos. This bias has resulted in a study disparity, predominantly concentrating on the requirements of specific groups, including healthcare workers, palliative care experts, and those with chronic diseases, while simultaneously neglecting death education for the general populace and healthy pupils. This pattern indicates a "functional" comprehension of death, perceived as significant solely when associated with specific roles or communities (Xie et al., 2021; Zhang, 2022), while conversing about death with healthy individuals, especially during their formative years, is regarded as inauspicious and socially inappropriate.

2.3.5 Conclusion: Towards Culturally Sensitive Death Education

The cultural overemphasis on the value of life and the avoidance of death-related topics are intrinsically linked to the protracted marginalization of death education in mainland China. Future endeavors should establish death education as an independent and systematic field of study, thereby removing it from its subordinate status to life education. This will promote a more comprehensive societal comprehension of the value of life and cultivate a cultural ethos that values life and cares for mortality. The development of culturally sensitive curricula is urgently necessary in order to effectively implement death education in mainland China. The framework for the development of culturally responsive death education programs will be the subject of the subsequent section.

2.4 Cultural Sensitivity in Death Education: A Focus on Practice and Future Directions in Mainland China

2.4.1 Cultural Sensitivity: A Cornerstone of Death Education in Mainland China

In mainland China, cultural sensitivity is fundamental to designing effective death education programs. Educators must demonstrate a comprehensive understanding of diverse beliefs and practices surrounding death, respecting traditional cultural values rooted in Confucianism and Buddhism and integrating them into the curriculum (Sue et al.,2019). This means that while presenting contemporary ideas in death education, such palliative care, end-of-life decision-making, and grief counselling, it is necessary to take the local cultural context into account. Death education will become more acceptable to students and the general public as a result of this perspective, which will lessen opposition to talking about death. To ensure that the curriculum respects a variety of perspectives while addressing the universal features of death, educators must also be culturally competent in order to negotiate the varied perspectives that students may hold.

2.4.2 Historical Evolution of Death Perceptions in Chinese Society

Historically, attitudes toward death in Chinese society have been shaped by Confucian, Taoist, and Buddhist philosophical traditions. In pre-modern China, death was embedded within ritualized familial and ancestral practices, where filial piety and ancestral worship normalized structured engagement with mortality. However, during periods of political modernization and secular reform in the twentieth century, public discourse surrounding death gradually shifted toward privatization and institutionalization. The rapid urbanization and modernization of post-reform China further transformed death from a communal ritual event into a more medicalized and hospital-centered experience.

In the contemporary digital era, the emergence of online memorialization platforms, virtual mourning spaces, and social media discussions has begun reshaping public engagement with death-related discourse. Despite these changes, cultural taboos surrounding open discussion of mortality remain influential, particularly within formal educational contexts. Understanding this historical trajectory provides deeper insight into

why death education remains sensitive in higher education institutions and highlights the tension between traditional avoidance patterns and modern digital exposure to death-related content.

2.4.3 Cultural Sensitivity in Practice: Evidence and Approaches

The significance of cultural sensitivity in death education is substantiated by existing research. For instance, Zhang et al. (2020) conducted a study that showed that healthcare professionals' cultural competence and compassion were substantially improved as a result of culturally adapted end-of-life care training. This study also demonstrated that patient-provider communication was improved. In addition, recent research (Tu, 2023; Wang, 2022; Zheng, 2024) indicates that the integration of traditional Confucian, Buddhist, and Taoist philosophies into death education can enhance one's comprehension of life, alleviate anxiety and dread associated with death, and offer spiritual refuge. Furthermore, research suggests that the requirements and preferences of mortality education are contingent upon factors such as age, background, and occupation, which necessitates the implementation of tailored strategies. For example, adolescents may prioritise the exploration of the meaning of life, while older individuals may benefit from a focus on end-of-life care. Experiential learning and case studies, which are interactive pedagogical methods, have been demonstrated to be particularly effective in fostering student engagement and deepening their comprehension(Shu et al., 2023; Zhang & Kou, 2022; Zhang et al., 2022).Furthermore, initial steps have been taken to develop cultural sensitivity assessment methods to provide a basis for culturally responsive death education curriculum development (Sun et al., 2023).

2.4.4 Future Perspectives: Prioritizing Cultural Sensitivity in Death Education Curriculum

We should continue to investigate the development of localised death education models that integrate Western approaches with Chinese cultural contexts in future research. This requires the provision of education that is more culturally sensitive and personalised, and that is tailored to the unique needs of diverse groups, including those that are differentiated by region, ethnicity, age, and belief systems. Additionally, it is imperative to conduct comprehensive research on ethical dilemmas that arise in multicultural environments, including end-of-life decision-making and euthanasia. It is also imperative

to create assessment instruments that are culturally responsive in order to accurately assess the changes in students' knowledge, attitudes, and emotions.Moreover, efforts should focus on enhancing teacher training programs that emphasize both cultural sensitivity and specialized knowledge to ensure the quality of instruction. Lastly, longitudinal studies are necessary to evaluate the effectiveness of culturally sensitive mortality education.Overall, death education in mainland China should prioritize cultural considerations to establish a culturally adapted educational system that fosters the harmonious and holistic development of students.

2.5 Psychological and Professional Benefits of Death Education: Focusing on Chinese Practice

2.5.1 Psychological and Professional Benefits of Death Education

Both professional progress and personal psychological well-being are greatly enhanced by death education. It has been shown that death education improves emotional resilience and successfully lowers death anxiety. According to Kastenbaum (2000), educating people about mortality helps them comprehend and accept that life is limited, which makes it easier for them to deal with loss and grief. Additionally, death education encourages individuals to appreciate the present, explore life's meaning, and improve overall well-being(Phan et al., 2021).Professionally, death education is particularly crucial for healthcare professionals, as it provides tools for managing the emotional strain involved in difficult conversations with terminally ill patients and their families. Neimeyer (2012) suggests that death education helps healthcare students develop empathy, emotional maturity, and the professional skills required to navigate difficult conversations about death.Moreover, death education can enhance teachers' pedagogical skills, enabling them to teach relevant courses more effectively and develop death education curricula that meet the needs of their students. (Rodríguez Herrero et al., 2022; Stylianou & Zembylas, 2021) .Additionally, it facilitates interprofessional collaboration in death education by enabling professionals from a variety of backgrounds, including doctors, social workers, counsellors, and educators, to better comprehend the complexities of death(Corradi et al., 2021; de la Herrán Gascón et al., 2022; Temiz, 2024; Yang & Li, 2022) .

2.5.2 Death Education Practice in Mainland China: Manifestation of Benefits and Challenges

According to Hao et al. (2023), undergraduate nursing students who participated in a mortality education program had a positive experience with the curriculum intervention. The study also showed that the death education curriculum intervention was somewhat effective in reducing death anxiety among these nursing undergraduates, and they provided positive feedback on the instruction. Future research could explore the potential of expanding the application of mortality education programs to students in other academic years and across various medical specialities. These findings indicate that death education in mainland China has the potential to induce initial psychological benefits, including enhanced emotional resilience and diminished death anxiety.

Death education demonstrates its professional benefits not only by enhancing students' psychological well-being but also by improving their professional competence in healthcare fields, such as end-of-life care and grief counseling. Studies indicate that death education can bring about changes in patients' and nurses' attitudes and behaviors. It promotes a scientific understanding of death, equips individuals with relevant knowledge, reduces fear of death, helps patients comprehend the value and meaning of life, and improves nurses' knowledge and competence in patient care. (Figen & Fatma, 2021) Besides, Mainland China recognizes the importance of death education faculty and is actively promoting multi-sectoral collaboration and strengthening faculty training and development to address challenges such as a shortage of instructors and a lack of expertise, thereby ensuring the effective implementation of death education and interprofessional collaboration.(Liang et al., 2024)

Nonetheless, the execution of death education in mainland China continues to encounter several obstacles. The cultural taboo associated with death restricts public acceptance. There is a notable absence of comprehensive curriculum and instructional resources, a shortage of experienced educators, and an inadequacy in efficient assessment mechanisms. Moreover, insufficient awareness and support for death education from multiple societal sectors impede its popularization and advancement. (Liang et al., 2024) These problems highlight the pressing necessity to improve the exploration and support of death education in mainland China, considering the cultural context.

2.6 Death Education Curriculum Needs in higher education in Mainland China

In addition to fostering a more accurate perspective on life and death and improving the psychological well-being of university students, death education also aids them in more effectively managing future professional challenges and personal adversities. This paper delves deeper into the current research status of the death education curriculum requirements in higher education in mainland China, drawing on the aforementioned literature review, to offer recommendations for the enhancement of death education system.

2.6.1 Research Methods

Current research on the needs for death education in mainland Chinese universities mainly employs two approaches:

Direct Needs Surveys: Directly understanding students ' needs for death education courses through questionnaires, interviews, and other methods, including course topics, teaching methodologies, assessment methods, and course arrangements (Cao et al., 2018; Feng et al., 2021; Zhou et al., 2022).

Problem and Barrier Analysis: The emphasis is on the identification and analysis of the various problems and barriers that students encounter when receiving death education. This approach indirectly infers students' needs and provides a foundation for instruction (Zhu et al., 2022; Zhou et al., 2022).

2.6.2 Diverse Needs of Students for Death Education

Research demonstrates that the requirements of mainland Chinese university students for death education are multifaceted, particularly seen in:

Fundamental Curriculum Components: Comprising qualified educators, explicit instructional objectives, suitable course material, efficient pedagogical strategies, equitable evaluation systems, and logical course organisation (Zhang et al., 2018).

Course Content: Addressing notions and interpretations of death, practical competencies in end-of-life care, psychological and emotional support, ethical and legal

considerations, among other topics (Feng et al., 2021; Zhou et al., 2022; Zhu et al., 2022; Li et al., 2024).

Teaching Methodologies: Emphasising a variety of instructional approaches, including classroom lectures, thematic seminars, elective and compulsory courses, film and multimedia instruction, scenario simulations, case analyses, interdisciplinary integration, and practical activities (Huang, 2014; Cao et al., 2018; Huang et al., 2020; Xu et al., 2023).

Course Arrangement: Favouring weekly sessions, with an average study duration of 20 hours, and a preference for enrolling in courses at the initial phases of higher education (Cao et al., 2018; Huang et al., 2020).

Assessment approaches: In addition to conventional course papers and open-book examinations, investigating other assessment approaches to thoroughly analyse students' learning results (Zhang & Kou, 2022).

2.6.3 Differentiated Needs of Different Student Groups

There are notable disparities in death education requirements among various student demographics:

Medical and Nursing Scholars: Emphasize the enhancement of professional competencies in end-of-life care and doctor-patient communication, necessitating practical experience and simulated scenarios, including psychological support and counselling (Cao et al., 2018; Zhou et al., 2022; Zhu et al., 2022).

General University Students: Emphasize the philosophical interpretations of death, its cultural contexts, and ethical quandaries, aiming to comprehend the essence and significance of death via academic study (Feng et al., 2021; Zhang & Kou, 2022).

Students with Diverse Attitudes Towards Death: Exhibit distinct requirements for course content; for instance, neutral acceptors seek a thorough comprehension, avoidant acceptors desire knowledge about near-death experiences, and inclined acceptors are focused on death ethics and legislation (Li et al., 2024).

2.6.4 Limitations of Existing Research and Future Research Directions

While current research offers significant insights into the necessity of death education in higher education across mainland China (Cao et al., 2018; Feng et al., 2021; Zhou et al., 2022), certain limitations persist. Research primarily concentrates on medical and nursing students, neglecting the demands of general higher education learners across all fields (Zhang et al., 2018; Song et al., 2021; Ke & Xiao, 2021; Huang et al., 2023). Research literature prioritises curriculum material and methodologies, overlooking aims, evaluations, and organisational structures (Zhang & Kou, 2022; Huang et al., 2020). Research methodologies predominantly consist of quantitative or subjective assessments, missing an integration of quantitative and qualitative approaches, which complicates the exploration of underlying reasons (Zhu et al., 2022; Zhou et al., 2022). Moreover, research seldom investigates the influence of death attitudes, anxieties, and gender disparities on educational requirements (Li et al., 2024), and lacks assessments of long-term consequences.

Future research should: broaden the scope of studies to focus on general higher education students and the needs of different disciplines; construct a systematic curriculum system that considers objectives, assessments, and arrangements; employ mixed research methods; delve into the impact of death attitudes, fears, and gender differences; and conduct evaluations of long-term effects. Through these efforts, a more comprehensive understanding of students' needs can be achieved, leading to the development of more effective and targeted death education courses.

2.7 Barriers and Solutions to Implementing Death Education Curricula in Higher Education in Mainland China

There are numerous obstacles to the widespread adoption of death education in higher education in mainland China. The primary obstacle is cultural resistance. In traditional culture, death is considered inauspicious and forbidden, which results in both students and teachers experiencing discomfort when discussing death education. Additionally, families and society's avoidance of death education, as well as fear and anxiety regarding mortality, impede its promotion.(Wang et al., 2023) Nevertheless, the mechanisms of cultural influence and the evaluation of intervention effects are not

adequately examined in the current research, and the solutions to this barrier are still uncertain.

Within the higher education system, the preference for practical disciplines has led to the neglect of death education (Huang & Sheng, 2022). Higher education institutions frequently prioritise professional skill development above the development of humanistic traits, which makes it challenging for death education to secure funding. The creation of additional specialised courses should be promoted, and death education should be included in the the educational institution's basic curriculum. (Wang , 2020) However, existing research lacks sufficient analysis of policy-level barriers and comparative effects.

The absence of instructors who are qualified is also a significant impediment. Professional knowledge and emotional sensitivity are essential components of death education; however, current educators frequently lack the necessary training. Consequently, it is imperative to enhance instructor development, establish systematic training mechanisms, and provide support for localised theoretical research. Nevertheless, the current body of research does not provide an in-depth evaluation of the effectiveness and requirements of teacher training.(Liang et al., 2024) Concurrently, the participation of the entire society and the investment of resources are also insufficient. Social participation should be promoted, and resource investment should be increased. Nevertheless, the current body of research does not include an analysis of social participation models or effectiveness evaluations. (Lan & Wang, 2024)

In conclusion, the collaborative endeavours of government, universities, and society are necessary for the implementation of death education in higher education. In general, the current research offers valuable insights into the barriers, but it still has deficiencies in terms of profundity, methodology, and evaluation. In order to bolster mortality education in higher education in China, future research must enhance theoretical, methodological, and practical evaluations.

2.8 Death Education Curriculum: Global and Local Practices

2.8.1 The Rise and Development of Global Death Education Curriculum

The emergence of global death education signifies a growing recognition of the necessity to confront the topic of life's end. As a pioneer, the United States actively promoted death education within its higher education institutions, advancing it through professional certification standards and systematic curriculum design. This laid the groundwork for subsequent death education initiatives worldwide.(Wass, 2004; Yuan et al., 2007; Lan X.P., 2019).Consequently, a variety of countries, including the United Kingdom, Japan, South Korea, and Australia, have conducted extensive investigations into curriculum frameworks for death education. They have adapted these frameworks to their respective national conditions and cultural backgrounds, thereby providing a wealth of practical references for curriculum design in global death education (Tan, 2010; Liu X.L., 2023). The widespread global attention and ongoing investigation of this issue are also demonstrated by these early practices and explorations, which provide crucial insights into the necessity of death education and the construction of effective curriculum frameworks.

2.8.2 Death Education for Adolescents

Teenagers is a pivotal developmental stage, and youths encountering loss or experiencing death may endure considerable psychological anguish(Farella Guzzo & Gobbi, 2023). Thus, death education curriculum frameworks need to adjust to the distinct requirements of adolescents. These frameworks must extend beyond merely conveying knowledge about death; they should emphasise enhancing teenagers' ability to manage negative emotions, cultivating a profound sense of meaning and purpose in life, so facilitating healthy psychosocial development. Adolescent death education should prioritise emotional development, assisting youth in cultivating healthy strategies for expressing and regulating their emotions to effectively confront life's problems (de la Herrán Gascón et al., 2021).

2.8.3 Core Elements in Global Death Education Curriculum Frameworks

Although curriculum framework designs for death education are diverse on a global scale, they are all closely related to the following core elements: Initially, a knowledge

base that is designed to assist students in developing a scientific understanding of death and improving their personal comprehension of life (Phan et al., 2024).The first research literature on death education in the world explored children ' s understanding of death education(Sonbul, 2021). Secondly, emotional support, which involves assisting students in recognizing and processing emotions such as grief, anxiety, and fear related to death, while providing psychological counseling and support resources. The first doctoral research in death education was a study of coping with psychological issues like death anxiety and fear of death (Sonbul, 2021). Thirdly, skills development, which emphasises the development of students' practical abilities in managing bereavement, end-of-life care, and life crises, including communication strategies, grief counselling, and life support (Farella Guzzo & Gobbi, 2023; Szczupakowska et al., 2021). Lastly, the examination of the significance of life, which encourages students to contemplate the value and significance of life, thereby fostering a more optimistic perspective on life and a more profound comprehension of the finite nature of existence (Testoni et al., 2021b). These fundamental elements are essential for the development of effective death education curriculum frameworks; they interact with one another to jointly enhance students' comprehensive comprehension of death and their capacity to respond with positivity.

2.8.4 Educational Technology and Experiential Learning in Death Education

The integration of virtual reality (VR) simulations within death education aligns with developments in the Learning Sciences and educational technology research. Immersive technologies have been shown to enhance experiential learning by increasing cognitive engagement, emotional presence, and perspective-taking. According to constructivist and experiential learning theories, immersive environments facilitate active meaning construction through simulated real-world experiences.

Within sensitive educational domains such as medical ethics and end-of-life care, VR-based scenario simulations provide psychologically safe yet emotionally engaging environments for skill rehearsal and reflective processing. Research in the Learning Sciences suggests that immersive simulation supports empathy development, decision-making competence, and contextualized knowledge integration. Therefore, the use of VR in this study not only represents technological innovation but also reflects pedagogical alignment with experiential and transformative learning principles.

By situating VR implementation within the broader EdTech literature, the study reinforces its multidisciplinary foundation, integrating curriculum theory, psychological resilience research, and technology-enhanced learning.

2.8.5 Case Studies in Global Death Education Curriculum Frameworks

The design of death education curriculum frameworks varies across various countries and regions, reflecting their distinct cultural backgrounds, stages of social development, and varying understandings of death. Emphasising the presentation of their research approaches and findings, as well as an in-depth analysis of their strengths and shortcomings, the subsequent content will concentrate on practices in the United States, South Korea, and Japan. We will investigate the implications of these practices for related research in mainland China, with the objective of establishing a reference for the development of a localised death education curriculum framework, based on the results of this analysis.

2.8.5.1 United States: Systematic Tiered Education and Diverse Teaching Methods

Some regions and schools in the United States have been instituting relevant practices since the 1980s, which serves as an early history of death education programs. For example, the nine-week course "Death" at Glenrock High School in Wyoming was successful in fostering open discussion among students by examining topics such as societal attitudes towards death, celebrity views on death, and medical definitions of death. This resulted in positive classroom feedback. Similarly, the "Enrichment Program on Life and Death" for high-achieving fourth and fifth graders at Myra Terwilliger Elementary School in Gainesville, Florida, used activities like field trips to cemeteries and funeral homes, as well as surveys, to help students engage more naturally with the topic of death, significantly improving their cognitive and emotional understanding of it. These programs demonstrate the potential of death education practices designed for different age groups and fostered an open discussion environment.(Waterman & Lipka, 1982)

Nevertheless, a 2022 study suggests that the United States' death education system is still lacking in systematic structure and substance, despite some progress in the development of death education. The emotional needs of individuals are not adequately

addressed by the training of healthcare professionals and bereavement counsellors, and the educational content is not customised to meet the unique requirements of various populations. Additionally, the accurate assessment and enhancement of educational efficacy are impeded by the limitations of evaluation methods, which result in a significant lack of support for specific groups, such as low-income and minority communities, in the context of death education. Consequently, it is imperative that death education in the United States be further refined and systematised to more effectively address the requirements of diverse groups, despite its early initiation .(Case & Deaton, 2022)

2.8.5.2 South Korea: Experiential Training and Life Reflection

The DACUM method was employed by Kim et al. (2016) to create a curriculum framework for death education that was intended for the South Korean public. The primary objective of this investigation was to establish a panel of nine university professors. Subsequently, the expert panel conducted an analysis of the duties and tasks associated with death education, resulting in a list of 24 duties and 77 tasks that encompassed cognitive, acceptance, and practical dimensions. The researchers then collected the expert panel's ratings of the frequency, importance, and difficulty of executing each task through questionnaires. Finally, the researchers prioritised tasks with high importance and difficulty based on the data analysis, thereby constructing the curriculum framework. The most critical themes in death education were determined by the study to be "What kind of meaningful life do I want to have?" and "Fear of Death." The curriculum framework that was developed around this core encompassed the cognition of death, which included its definition, process, impact, and cultural differences; the acceptance of death, which included fear, understanding one's own mortality, and coping with end-of-life psychology; and the practice of death, which included end-of-life communication, preparing for farewell, funerals, and hospice care. This investigation not only offers a comprehensive curriculum framework but also emphasises the critical concerns that necessitate prioritisation in the context of death education (Kim et al., 2016).

Table 2- 1:
Curriculum framework for death education for public in Korea

Core Theme	Dimensions (Sub-themes)	Specific Content Examples
What Kind of Meaningful Life Do I Want?	(Serves as a guiding core value throughout the framework)	Exploration of personal meaning, reflection on values and life goals, guiding students to think about living a meaningful life.
Cognition of	1. Definition and Process of	Discussion of biological, medical, and philosophical

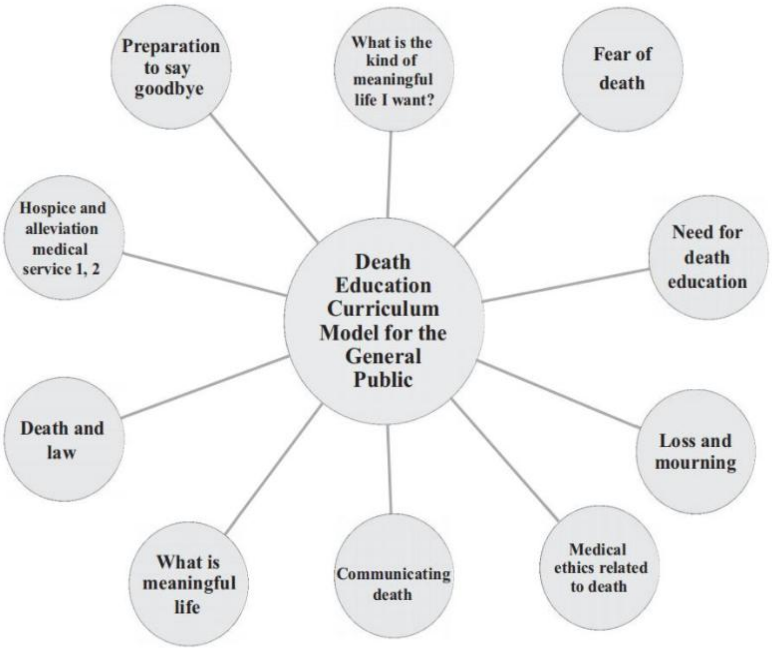
Death	Death	definitions of death, understanding the process of dying (including physiological changes during the terminal stage), and the impact of death on society.
	2. Cultural Differences in Death	Understanding death concepts, funeral customs, mourning practices, etc. across different cultures, promoting diverse understanding of death.
Acceptance of Death	1. Fear of Death	Analysis of the sources of fear (e.g., fear of the unknown, fear of pain), discussion of how to cope with and manage the fear of death, and learning to accept death.
	2. Understanding One's Own Mortality	Guiding students to contemplate their own death, clarify the finite nature of life, recognize that death is part of life, and be psychologically prepared.
	3. Psychological Changes of the Terminally Ill	Understanding the psychological stages that terminally ill patients may experience (e.g., denial, anger, bargaining, depression, acceptance), learning how to understand and care for terminally ill patients and provide emotional support.
Practice of Death	1. Communication at the End of Life	Learning how to communicate effectively with terminally ill patients and their families, including delivering bad news, expressing care, and listening to needs.
	2. Preparing for Farewell	Discussing how to create a comfortable environment for the terminally ill, review their life, complete unfinished tasks, express love and gratitude, and prepare for farewell.
	3. Funeral Preparation	Understanding the meaning and forms of funerals, and how to choose appropriate funeral arrangements, such as making a will and organ donation.
	4. End-of-Life Care	Learning the principles and methods of end-of-life care, including relieving pain, providing comfort, and meeting emotional needs, enabling terminally ill patients to live their last journey with dignity.

Source: Kim et al. (2016)

Nevertheless, the current investigation is not without its constraints. Initially, the sample size, which is limited to nine university professors, may not be indicative of the broader public's requirements. Secondly, the research methodology was restricted, as it was exclusively based on questionnaire surveys and lacked the substance that qualitative analysis provides. Thirdly, the DACUM method may have neglected critical dimensions, such as emotional intelligence and humanistic considerations, due to its emphasis on task decomposition. Fourthly, the study's practical feasibility remains uncertain due to its failure to implement or validate the framework's efficacy, despite its effective construction. Fifth, the results may be restricted in their generalizability due to the cultural context of South Korea. Additionally, the findings may be influenced by the subjective character of the weighting assigned during data analysis. In summary, the study conducted by Kim et al. offers a valuable framework for curriculum development. However, additional research is

required to validate and refine the framework, as well as to guarantee its applicability in a variety of contexts.

Figure2- 1:
Organization Chart of Death education curriculum model for general public in Korea



Source: Kim et al. (2016)

2.8.5.3 Collaborative Research from Australia and Taiwan, China

In order to improve research in life and death education, Phan et al. (2024) proposed a "Life + Death Education Framework" that serves as a guide for both pedagogy and scholarship. This framework integrates diverse perspectives, advocates for active learning, and emphasizes the interconnectedness of life and mortality. The framework's framework includes an overview of life and death education, the articulation of learning outcomes and core competencies, six core pedagogical themes (philosophical reflection, humanistic exploration, end-of-life care, value deliberation, spiritual cultivation, and practical reflection), and four pedagogical elements (application, growth, remediation and appreciation, humanistic understanding, and life enlightenment). Its innovation is the introduction of the concept of "self-wellbeing," which interprets personal well-being through the lens of life education, emphasizing introspection and reflection. Nevertheless, additional research is necessary to determine the framework's generalizability and applicability. This curriculum framework is designed to enhance students' self-wellbeing

by guiding them towards a profound contemplation of the meaning and value of life, fostering a proactive approach to death, and cultivating positive emotions and practical skills, all of which are built upon this foundation.(Phan et al., 2024)However, the study provides only a conceptual framework, and its components could be adapted into a curriculum through further detailed research and practical testing."

Table 2- 2:
Conceptual framework for death education curriculum research from Australia and Taiwan, China

Framework Component	Potential Curriculum Content	Content Description
Philosophical Thought & Reflection	Curriculum Module: Introspection & Reflection	Encouraging critical thinking about life, death, and the unknown; includes self-reflection exercises.
Humanistic Exploration	Curriculum Module: Meaning & Purpose	Exploring different perspectives on the meaning and purpose of life; emphasizing human values and experiences.
Ultimate Life Care	Curriculum Module: End-of-Life Issues	Focus on the practical aspects of caregiving, hospice, and grief counseling.
Value Deliberation	Curriculum Module: Ethics & Values	Exploring personal values and their relationship to life and death decisions; discussing ethical dilemmas.
Spiritual Practices	Curriculum Module: Spirituality & Belief	Exploring various spiritual and religious beliefs related to life and death; may include meditation or mindfulness exercises.

Source: Phan et al. (2024)

2.8.5.4 Death Education Curriculum Project in Japan

Rather than a structured, standardized curriculum, the death education program of this study utilizes a multi-layered, multi-dimensional, experiential learning model that is grounded in Jankélévitch's 'Three Perspectives of Death' (third-person: the death of others; second-person: the death of loved ones; first-person: one's own death).

The theoretical component examines various models of death, including Kübler-Ross's five stages, Corr's task-based approach, Noyes & Clancy's theory of death roles, and Engel and Sulmasy's biopsychosocial-spiritual model. It also explores the significance of death across diverse cultures and faiths. This is designed to equip students with a strong conceptual framework for understanding death.

The experiential aspect prioritises practical learning. It includes guest speakers, including suicide survivors and hospice chaplains, who share their experiences to assist

students in understanding the reality and complexities of dying from a second-person perspective. Additionally, the curriculum encompasses activities such as simulated death experiences and workshops aimed at reflecting on the past and anticipating the future. These activities invite students to reflect on their personal relationship with death from a first-person viewpoint, examining the significance and worth of life. Supplementary educational resources, such as illustrated books and documentaries, are employed to convey the themes of life and death in a more vivid and engaging manner.

Measurement Instrument: Researchers employed the "Views on Life and Death Scale," an instrument they created to assess comprehension, beliefs, and sentiments regarding life and death. Exploratory factor analysis substantiated its validity and reliability. Results indicate that the death education program substantially altered students' perceptions of death, reduced their fear and sorrow associated with death, and heightened their appreciation for life's significance, particularly in diminishing suicidal ideation. (FUJII, 2023)

Table 2-3:
Components, Learning Objectives, Assessment & Outcomes of the Japanese Death Education Curriculum

Course Component	Specific Content	Learning Objectives	Assessment & Outcomes
Curriculum Design	Based on Jankélévitch's Theory-"Three Perspectives on Death"	Provide multi-level and multi-dimensional experiential learning	Significantly changes students' views on death; Reduce fear and sadness about death; Enhance understanding of the meaning of life; Reduce tendencies towards suicidal idea.
Theoretical Learning	Integrating Multiple Death Theory Models	Provide a comprehensive knowledge framework on death; enhance the cognitive understanding of students in theoretical learning.	Improved cognitive understanding based on theoretical frameworks
Experiential Learning	Sharing personal experiences from suicide survivors and hospice chaplains.	Sense the reality and complexity of death; guide students to think deeply about their relationship with death;	Students can deeply reflect on their own relationship with death;
	Simulated death experiences, workshops reflecting on the past and looking toward the future.	Guide students to reflect on the meaning and value of life.	Improved reflection on the meaning and value of life.

Auxiliary Materials	Picture books, documentaries	Present the themes of life and death in vivid ways; enhance students' emotional understanding and resonance.	Enhanced sensory understanding and emotional resonance.
Measurement Tools	"Life and Death Attitude Scale"	Assess students' understanding, beliefs, and feelings about life and death; Validated validity and reliability through exploratory factor analysis.	Validated reliability and validity through factor analysis.

Source: FUJII. (2023)

Notwithstanding the presentation of initial evidence, this study possesses limitations." The restricted sample size, characterized by a relatively small number of final participants, affects the generalizability of the findings. Secondly, the lack of a control group in the study design complicates the ability to eliminate the impact of extraneous variables on the findings, and the precise efficacy of the experiential learning component was not quantitatively evaluated. Moreover, the study was limited to university students in Japan, potentially constraining the generalizability of its findings to individuals from diverse cultural contexts, and it did not explore the efficacy of death education across various cultures. Furthermore, although multiple theoretical models were used, the study failed to provide a comprehensive examination of the interrelationships among these models. Future research must prioritize larger sample sizes, utilize more rigorous experimental designs, and undertake cross-cultural comparative studies to establish a more robust theoretical framework, thereby enhancing the holistic well-being of higher education students.

2.8.5.5 Death Education Curriculum and Framework Design Research in Mainland China

Mainland China's death education emerged in the late 1980s, originating from translations and dissemination of foreign literature. This initial phase saw death education primarily introduced as a novel concept. However, due to the ingrained cultural taboos surrounding death within traditional Confucianism, research and discussion progressed slowly. Early death education remained largely undeveloped, lacking both systemic structure and sustained effort.

In the 21st century, there were significant changes in society. The increasingly frequent occurrence of violent incidents and suicides among university students and

adolescents has incited a profound societal reflection on the value and significance of life. A substantial shift in scholarly focus towards death education was prompted by this context, as researchers began to scrutinize the content, objectives, and methodologies of the curriculum. In addition, academic circles began to acknowledge the significance of this field. Lu et al. (2004) conducted research that exemplified this transformation, which marked the transition from the initial introduction of death education to its practical exploration. In addition, there was an increasing emphasis on the application of lifelong learning in the context of death education (Cao, 2015). A substantial gap continued to exist between theoretical research and practical application, despite the progress that had been made.

The first entrance of death education into the university curriculum was marked by Professor Duan's pioneering death philosophy elective course at Wuhan University in 1991, which served as a curriculum development milestone. Subsequently, Professor Zheng implemented comparable courses at Nanchang University, which served to facilitate their practical implementation. Simultaneously, a range of perspectives emerged regarding the appropriate venues for death education, evolving from the family (Cheng, 1991) to nationwide dissemination (Shi, 1994) and integration with mental health education (Du, 1994).These perspectives reflect the evolving understanding of how to disseminate death education.

The first textbook specifically designed for medical schools, Human Death, was published by Chen and associates in 1997. This groundbreaking publication established the foundation for specialized death education in medical settings. Gradually, death education was integrated into the curricula of medical schools. Shandong University's Medical School introduced the elective course "Death Culture and Life-Death Education" in 2005, which was subsequently followed by similar offerings at Southern Medical University. This trend persisted. These developments witnessed the progressive integration of death education into higher medical education. Subsequently, other institutions, including Guangzhou University, Central South University, and Peking University, also introduced courses on death philosophy and related discussions, furthering the spread of death education within the broader university sphere. Additionally, the establishment of a dedicated death education course at Guangzhou College of Pharmacy, in conjunction with

the publication of Zou 's Death Education in 2008, provided further direction for course development.（Tang, 2013）

At present, an increasing number of universities, such as Harbin Medical University and the Second Military Medical University, have integrated death education into their curricula. Scholars are currently investigating the development of systematic death education frameworks, with medical education standing out as a critical focal area. (Tang, 2013; Lan, 2019)

In conclusion, the conceptual introduction, theoretical exploration, practical application, and the formulation of curricular frameworks have all been phases in the development of death education curricula in mainland China. This progression from conceptualization to a more structured, systematized approach is evident in this evolution, which transitions from theory to practice. Nevertheless, the field is still in the early stages of development and necessitates further in-depth research and practical implementation to facilitate its widespread adoption across a variety of disciplines and cultural contexts.

The subsequent sections offer a comprehensive summary of two studies that explore the framework of the death education curriculum in Mainland China.

(1) Research on the Medical Death Education Curriculum Framework at Capital Medical University: The research on the death education curriculum framework at Capital Medical University is based on student-centered principles and experiential learning, while also taking into account the unique requirements of the Chinese cultural context. An innovative framework that integrates theory and practice, process and outcomes, has been developed through a process that includes requirements analysis, theoretical framework construction, practical training base development, curriculum content design, and a diversified evaluation system. The fundamental objective of this framework is to convert abstract life and death education theory into tangible practical experiences, such as "walking classroom" excursions to palliative care wards and funeral homes. This is intended to improve students' comprehension of life and death, as well as their ability to provide humanistic care. The framework is effective in enhancing the pertinent competencies of medical students and is valuable for implementation in other medical schools, according to the research findings. Nevertheless, its generalizability is also restricted, necessitating modifications to specific professional knowledge and practical

circumstances in accordance with various specification. Future research could develop modularized teaching content to improve its applicability across a broader range of disciplines. (Yue et al., 2024)

Table 2- 4:
Outcomes of Capital Medical University's Research on the Medical Death Education Curriculum Framework

Module	Type	Content Summary	Implementation Location/ Method	Learning Objectives	Assessment Method
Journey of Life	Practice	Visiting hospice wards, interacting with patients and families, and learning life stories.	Tertiary Grade A Hospital Hospice Ward	Enhance empathy and confront life and death.	Reflection journals, group discussions, classroom participation.
Power of Care	Practice	Learning holistic, family-centered, and continuous care models, participating in volunteer services in tertiary grade A hospital hospice wards and community health service centers.	Tertiary Grade A Hospital Hospice Wards and Community Health Service Centers	Enhance caregiving abilities and experience the power of care.	Practical reports, volunteer service records, group evaluations.
Self-Care	Practice	Learning self-regulation skills, engaging in mindfulness meditation and sandplay.	Tertiary Grade A Hospital Hospice Ward	Enhance self-regulation and relieve stress.	Reflection journals, group sharing, classroom participation.
Thoughts on Death	Practice	Visiting funeral homes, learning about funeral procedures, and engaging in life-related games.	Funeral Homes	Face death, eliminate fear, and view death rationally.	Visitation reports, group discussions, creative works (e.g., design own funeral).
Day of Farewell	Practice	Visiting cemeteries and body donation centers, learning about various burial methods, and paying respects to the deceased.	Cemeteries and Body Donation Centers	Learn farewell ceremonies and contemplate the value of life.	Reflection journals, postcard writing, group sharing.
Life and Care	Theory	Explanation of theoretical knowledge related to life education.	Classroom	Lay theoretical foundation and enhance life cognition.	Classroom quizzes, classroom participation, group.

Source: Yue et al. (2024)

Despite the innovative aspects of the proposed death education curriculum framework, which includes experiential learning, multi-disciplinary integration, and cultural awareness, and its successful short-term results in medical students, this study does have limitations. The study's sample size and its representation needs strengthening to ensure broader applicability of results. In addition, longitudinal studies are required to properly understand the lasting impacts of the curriculum on student's values and career pathways. Additionally, the study did not explore the curriculum's intrinsic mechanisms of efficacy. Finally, the study necessitates a more thorough assessment of the feasibility and appropriateness of this curriculum framework for broader application, particularly in non-medical fields. Future research needs to prioritize expanding sample sizes, conducting longitudinal follow-up, exploring mechanism of action, as well as refining this curriculum for different professions so that it will become more scientific, more practical and more widely applied in death education.

Table 2-5:
Strengths and Weaknesses of Capital Medical University's Research

Categories	Strengths	Weaknesses
Curriculum Design	Experiential, practical, interdisciplinary, holistic, culturally relevant, gradual.	Limited generalizability, lack of long-term data, questionable practicality for non-medical students, unclear mechanisms for effectiveness, promotion feasibility unclear.
Research Methods	Mixed methods, detailed data, diverse evaluations.	Limited sample representativeness, lack of in-depth study on effectiveness mechanisms.
Curriculum Effectiveness	Positive student feedback, significant learning gains, improved life care awareness and humanism.	Focus on short-term outcomes, lack of long-term impact assessment.
Promotion & Application	Strong potential in medical schools, addresses current course gaps.	Limited applicability across disciplines and cultures, requires further validation.

Source: Yue et al. (2024)

(2) Death Education Framework Research at Central South University: The research by Huang et al. (2023) aimed to develop an experiential death education curriculum framework suitable for university students in China. The study was centered on three fundamental components: first, the research team's prior practical experience in teaching reform within the "Living Towards Death" course; second, an in-depth analysis of the needs of university students regarding death education, specifically their perceptions

and preferences, as determined through interviews; and third, a comprehensive review of pertinent literature, both domestically and internationally, to integrate existing research findings. The Delphi method was implemented to guarantee the scientific rigor and practicality of the curriculum framework. Specifically, 23 experts were invited to engage in three rounds of consultation to iteratively debate and refine the course content and teaching activities.

The research led to the development of a comprehensive curriculum framework for experiential death education. This framework includes the following: an overarching teaching objective that aims to assist students in improving their cognitive, emotional, and behavioural abilities through learning, thereby enabling them to approach death more positively; six subordinate teaching objectives that address a variety of learning objectives; six teaching modules that cover the following topics: an overview of death education, understanding death, death culture, end-of-life care and grief counselling, bioethical issues, and the meaning of life; thirty specific teaching content items that provide a detailed account of the module content; and seventeen experiential teaching activities, including in-class drawing, film analysis, mouse death experience, simulated near-death experience, and visits to the human anatomy museum. These experiential activities are intended to guide students to experience death from various perspectives and engage in profound reflection. The study emphasizes that experiential teaching activities are central to this curriculum framework, allowing students to understand the essence of death through direct engagement and thus to achieve improvements in the affective domain.

Table 2-6:
Death Education Curriculum - Modules and Experiential Activities at Central South University

Module (Topic)	Key Content	Experiential Learning Examples
Introduction to Death Education	Historical context, definitions, goals, global trends	Brainstorming/drawing exercise on the topic of death.
Understanding Death	Concepts, types, biological markers, death awareness (fear, anxiety), near-death experiences	Film analysis (e.g., The Human World), simulated near-death experience, animal (e.g., mouse) death experience.
Cultural Perspectives on Death	Chinese views, different religions, funeral rites/customs across cultures	Guest speakers from different cultures, simulated funeral/ceremony
End-of-Life Care & Grief Counseling	Principles, techniques, grief processes, support methods	Role-playing grief counseling, “death cafe” activity, clinical observation/internship.
Bioethics & Life	Ethical frameworks, medical	Museum visits (e.g., human anatomy),

Module (Topic)	Key Content	Experiential Learning Examples
Choices	decisions, genetics, organ donation, euthanasia, suicide	debates, discussions, film screenings.
Meaning of Life	Human development, psychological theories, personal choices, resilience, societal values	Sensory training, communication exercises, journaling, book club, creating “bucket lists”.

Source: Huang et al. (2023)

This study features a number of strengths, including the integration of experiential learning into death education, which emphasizes student agency and improves learning outcomes. Additionally, the Delphi method is employed to ensure the scientific rigor of the curriculum framework, and a relatively comprehensive system has been developed, encompassing cognitive, emotional, and practical dimensions. However, limitations exist, including the need for further exploration of the theoretical foundation and design principles of experiential activities, a lack of in-depth analysis of teaching activity design and implementation, and a potential bias towards a medical focus due to the selection of experts primarily from nursing and related fields. As a result, the curriculum framework provides some reference value, notably in its approach to experiential teaching. However, specific content and activities require adjustment in accordance with the unique characteristics of the school and program. Additionally, resource-constrained regions may encounter obstacles during implementation. Therefore, while the study contributes to curriculum construction, further evaluation of actual teaching effectiveness and student experience is warranted.

Table 2-7:
Strengths and Weaknesses of Central South University's Research

Aspect	Strengths	Weaknesses
Core Philosophy	Experiential teaching, active student engagement, innovative pedagogy	Insufficient theoretical support, activity validity requires further research.
Curriculum Structure	Systematic framework, covers cognitive, emotional, and practical dimensions, provides a design reference.	Lack of practical guidance, activity design, implementation, and risk management need strengthening.
Method Application	Delphi method, enhances framework’s scientific validity and authority.	Limited expert backgrounds, lack of multidisciplinary perspectives.
Content Design	Diverse activities, stimulates student interest, integrates Chinese culture, considers cultural background.	Content applicability requires adjustment, need to consider the characteristics of different schools and majors.

Practical Application	Resource-intensive, high requirements for teachers, venues, equipment, professional applicability needs validation.

Source: Huang et al. (2023)

2.8.5.6 Comparative Synthesis of International and Chinese Practices

While the preceding sections describe death education practices across various national contexts, a comparative synthesis reveals several shared principles and contextual divergences. Across Western countries such as the United States, Australia, and parts of Europe, death education curricula emphasize open dialogue, emotional expression, and experiential learning approaches, often framed within individual autonomy and psychological resilience. In East Asian contexts such as Japan and Korea, although cultural reverence for death remains strong, structured educational programs have gradually integrated formalized curricular models that balance traditional values with contemporary educational needs.

In contrast, death education in Mainland China remains comparatively underdeveloped and fragmented. While sporadic initiatives and pilot courses exist, there is limited systematic integration into higher education curricula, and cultural taboos continue to influence institutional hesitancy. Unlike Western models that prioritize individual expression, the Chinese context requires stronger alignment with collective values, familial ethics, and socio-cultural sensitivities.

This comparative perspective highlights that although the core objectives of death education—reducing death anxiety, fostering resilience, and enhancing professional competence—are globally shared, the implementation pathways must be culturally adaptive. These cross-national insights inform the necessity of designing a curriculum framework that integrates international best practices while remaining responsive to Mainland China's cultural, institutional, and societal dynamics.

2.8.6 Summary

The global emergence of death education and its diverse practices provide valuable insights for the development of a curriculum framework that is appropriate for all

university students in China. The literature underscores the significance of death education in higher education, particularly in disciplines like healthcare and social work, where professionals frequently encounter issues related to death. International experiences, including those in the United States, South Korea, Japan, Australia and Taiwan（China）, all emphasize the significance of scientific comprehension, emotional support, skill development, and the investigation of life's purpose. However, these experiences also show weaknesses: experiential teaching lacks theoretical support, curricula are too medical, and long-term evaluations are insufficient. Therefore, we cannot simply adopt them; we must develop a locally relevant design for universal application.

Although death education in mainland China was initiated later, the academic community has begun to recognize and investigate its significance in light of social changes and evolving perspectives. However, death education in that region is still in the process of development, as it is confronted with obstacles such as a disparity between theory and practice and an inclination to concentrate research on medical aspects. Despite the fact that universities like Capital Medical University and Central South University have actively pursued experiential learning and localization, there are still issues, such as a focus on medical disciplines while overlooking others, limited long-term follow-up, and small sample sizes.

Therefore, a death education framework for all university students requires dismantling disciplinary silos, integrating humanistic and social science perspectives, and supporting experiential reflection with theory. Additionally, it should emphasize emotional support and critical thinking, respect Chinese culture, integrate on- and off-campus resources, conduct long-term empirical evaluation, and employ a modular approach catering to diverse academic needs. Ultimately, it is imperative that we utilize global practices, address local research deficiencies, and fully consider the diverse needs of students in order to develop a curriculum framework that is more scientifically effective, culturally responsive, and effective. This framework will enable university students to more effectively comprehend life, positively approach death, and lead more fulfilling lives.

2.9 Redesigning a Death Education Framework for Higher Education in Mainland China: Principles and Potential Impact

For a higher education death education framework to be successful in mainland China, it must integrate multiple dimensions to achieve its desired positive impact.

2.9.1 Universality

A universally applicable framework for death education curriculum in mainland China signifies that its fundamental components and design must be applicable across many areas, types of universities, and academic fields, so ensuring suitability for all university students, not solely for medical students. This necessitates the establishment of a comprehensive knowledge framework including the physiological, psychological, social, and ethical dimensions of death-knowledge that applies to all students, not only those in specific programs. The framework must be adaptable, enabling educators to modify content, cases, and activities according to regional, institutional, and student differences. This strategy will guarantee the course's relevance and efficacy, avert resource wastage and redundant efforts, facilitate the dissemination of high-quality educational materials, and simplify implementation across diverse universities and places.

2.9.2 Medical Student Specialization

Beyond the universal death education framework, there is a need for specialized training for medical students. This encompasses specialized competencies for delivering superior end-of-life patient care, including symptom management and pain alleviation; the cultivation of patient communication skills for conveying difficult information, empathetic listening, and demonstrating compassion; ethical decision-making capabilities in bioethical issues such as organ donation, euthanasia, and end-of-life planning; grief counselling training for assisting bereaved families; multidisciplinary collaboration skills for effective teamwork among healthcare professionals, including nurses and social workers; and the enhancement of self-regulation and stress management skills to enable medical practitioners to cope with the emotional demands of their profession.

2.9.3 Student Needs-Driven Design

The needs of higher education student, including their unique requirements in areas like knowledge, emotions, and skills, must be the driving force for a successful framework. To encourage active involvement, curriculum content and teaching strategies must be in line with students' interests, diverse learning preferences, and cognitive abilities. The framework should prioritize students' experiences and feelings, encouraging deeper thought, reflection and emotional expression, and helping them to build healthy coping mechanisms. Additionally, it must offer sufficient resources and assistance to student communities with unique needs.

2.9.4 Cultural Sensitivity

The design of this framework requires a deep understanding and respect for the diverse perspectives on life and death within the multi-cultural context of mainland China. Given China's vast geographical expanse, varying viewpoints on death exist across different regions, ethnicities, and religions. Course content should avoid interpretations based on a singular perspective; instead, it should incorporate explorations of death concepts across different cultural backgrounds, including traditional Confucian, Taoist, and Buddhist perspectives, as well as those of other ethnic minorities. The framework may incorporate Chinese cultural elements (such as respect for the deceased, family involvement in end-of-life decisions, and funeral customs) while also drawing upon successful international experiential learning methods (such as role-playing and case studies) to make the course more relevant to students' lived experiences and applicable to all students. The curriculum should also foster an environment in which students are encouraged to discuss their cultural experiences with death, thereby promoting understanding and preventing biases, as well as enhancing the course's cultural sensitivity.

2.9.5 Cross-Cultural responsive

A framework that is cross-culturally responsive within mainland China must recognize that the concept of death is perceived and articulated differently by individuals in different regions, nations, religions, and urban/rural environments, including mainland China. It should acknowledge these distinctions and refrain from imposing a single cultural perspective on all students. Rather, the course should incorporate various kinds of cultural

interpretations and death narratives, and it should encourage students to share their perspectives in order to promote cross-cultural interaction and understanding.

2.9.6 Comprehensive Impact

A successful death education curriculum framework should promote the holistic development of knowledge, emotions, skills, and values in higher education students throughout mainland China, thereby improving their physical and mental well-being and social responsibility. It should encourage a rational and complete understanding of death, potentially challenging cultural taboos, fostering a more open and inclusive societal environment, and contributing to global collaboration and advancement in death education. This will ensure that the education is more relevant to the specific context of mainland China. For medical students, this framework should further significantly enhance their professional competencies in areas such as palliative care, communication, and ethical decision-making.

In summary, the development of a death education curriculum framework in higher education institutions in mainland China requires a comprehensive examination of the distinctive cultural contexts and student requirements of the region, in addition to the incorporation of international experiences." This method is essential for the successful realization of its beneficial effects. The development of a curriculum framework that incorporates universality (applicable to all university students), cultural sensitivity, cross-cultural adaptability, and the professional competency development of medical students should be the primary focus of future research. The ultimate objective is to cultivate a positive attitude towards death and promote respect for life among university students in mainland China, thereby resulting in an improved quality of life.

2.10 Conceptual Framework of the Study

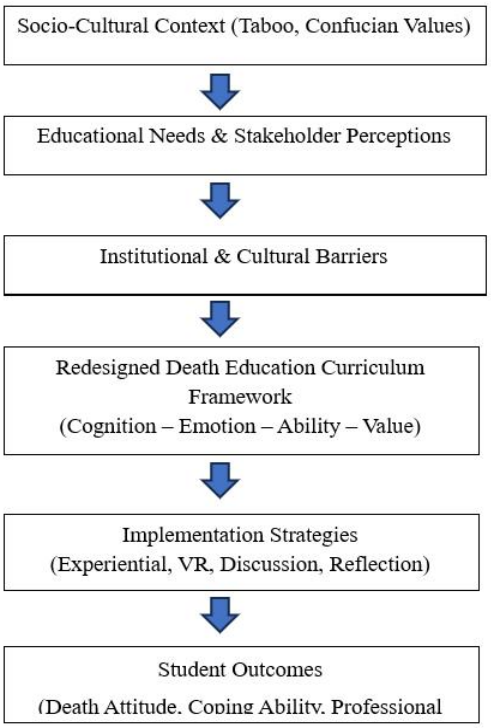
Based on the literature review and identified contextual, empirical, methodological, and practical gaps, this study proposes a conceptual framework that guides the structure of the thesis and the development of the death education curriculum.

The framework situates death education within the broader socio-cultural context of Mainland China, where traditional values and taboos shape perceptions of mortality. These macro-level cultural influences interact with stakeholder perceptions (students, faculty, administrators) and identified educational needs. At the same time, institutional and societal barriers influence the feasibility of curriculum implementation.

In response to these contextual conditions, the study proposes a redesigned death education curriculum framework structured along four interrelated dimensions: cognition, emotion, ability, and value. The framework is operationalized through specific implementation strategies, including experiential learning, reflective dialogue, ethical deliberation, and scenario-based simulations.

The effectiveness of this framework is evaluated through measurable student outcomes, including attitudes toward death (DAP-R), coping with death (CDS), and professional attitudes toward end-of-life care (FATCOD-B). This conceptual model therefore integrates cultural context, stakeholder needs, curriculum design, and measurable outcomes into a coherent structure that guides both the literature review and empirical investigation.

Figure2- 2:
Conceptual Framework



The conceptual framework illustrates the logical progression underpinning this study. At the macro level, the socio-cultural context of Mainland China characterized by traditional values and the taboo nature of death shapes how death is perceived within educational settings. These cultural influences directly affect stakeholders' perceptions and identified educational needs regarding death education.

Building upon these contextual conditions, institutional and cultural barriers are examined as mediating factors that influence the feasibility and form of curriculum integration. In response to these identified needs and barriers, the study proposes a redesigned death education curriculum framework structured around four interrelated dimensions: cognition, emotion, ability, and value. This framework aims to provide balanced development across knowledge acquisition, emotional regulation, practical competence, and value formation.

The curriculum is operationalized through targeted implementation strategies, including experiential learning, virtual reality simulations, reflective discussions, and narrative-based activities. Finally, the effectiveness of the framework is evaluated through measurable student outcomes, including attitudes toward death, coping ability, and professional preparedness for end-of-life engagement.

Overall, the framework demonstrates how socio-cultural influences, stakeholder needs, curriculum design, and measurable outcomes are systematically interconnected within this study.

2.11 Chapter Summary

This chapter reviews global perspectives and practices in death education, highlighting its crucial role in fostering understanding, acceptance, and coping strategies related to death. It underscores the importance of death education across diverse disciplines. The chapter then focuses on the specific context of death education in mainland China, examining the cultural barriers hindering its widespread adoption. It presents and analyzes influential research and developmental trends from various countries and regions, drawing valuable insights and methodologies to inform the development of a culturally sensitive and effective death education curriculum framework for this study. The chapter concludes

with a literature review summary, outlining implications for future research. This summary emphasizes the need for a universally applicable, culturally sensitive, and cross-culturally adaptable death education curriculum framework in mainland China to better prepare students for the realities of life and death. Furthermore, the review highlights the need for ongoing research to address the unique needs and cultural nuances within the context of higher education in mainland China. The subsequent chapter delineates the research technique, encompassing the research philosophy and research design.

CHAPTER 3:

RESEARCH METHODOLOGY

3.1 Introduction

This study adopts a mixed-methods approach, combining both qualitative and quantitative research techniques to comprehensively explore the needs, barriers, and potential strategies for redesigning and implementing a death education curriculum in higher education institutions in Mainland China. By using a mixed-methods design, the study aims to gather both detailed, context-rich data (through qualitative methods) and generalizable, statistical data (through quantitative methods), allowing for a deeper understanding of the topic.

3.2 Research Philosophy

The present study employs a mixed-methods research paradigm, incorporating both qualitative and quantitative methodologies, to thoroughly explore the redesign and implementation of death education curriculum frameworks within higher education institutions in mainland China.

Epistemology: This study employs a mixed epistemological approach, integrating elements of both post positivism and constructivism/interpretivism. Post positivism is manifested in the endeavor to identify an objective reality, aiming to reveal generalizable patterns and transferable conclusions through the analysis of quantitative data (Creswell & Creswell, 2018).Constructivism/interpretivism, on the other hand, is manifested in the emphasis on socially constructed realities, using qualitative data collection (such as interviews) to gain an in-depth understanding of the influence of individual experiences and social contexts on death education (Lincoln & Guba, 1985).

Ontology: This study recognizes the plurality and constructed essence of reality. The efficacy of implementing a death education curriculum is not exclusively determined

by objective factors, such as curriculum design and educational resources; it is also significantly shaped by sociocultural contexts, individual beliefs, and the subjective perceptions and values of various stakeholders, including students, teachers, and parents (Guba & Lincoln, 2005). Consequently, this research requires the amalgamation of quantitative data, which serves to quantify objective realities, alongside qualitative data, which facilitates the interpretation of subjective experiences, in order to attain a thorough understanding of the research problem.

Axiology: This study underscores the principle of value neutrality (Cook & Campbell, 1979), while simultaneously acknowledging the impact of values on both the research process and its resultant outcomes (Guba & Lincoln, 2005). Researchers will endeavor to mitigate the influence of personal biases on data collection and analysis, while striving to interpret findings with objectivity. However, the very selection and aim of the study reflect a particular value orientation—a commitment to social equity and justice, and the promotion of healthy development in death education. The mixed-methods approach adopted, particularly the emphasis on collecting and valuing the multiple voices of stakeholders, demonstrates a respect for the diversity of values (Mertens, 2003).

Methodology: This study employs a mixed-methods design, with the specific methodological choices contingent upon the research objectives and the characteristics of the data. These methodologies may encompass, but are not restricted to, quantitative surveys, qualitative in-depth interviews, and literature analysis (Creswell & Plano Clark, 2007). Quantitative data will be employed to assess objective indicators, including the effectiveness of curriculum implementation and associated challenges. In contrast, qualitative data will be utilized to obtain a comprehensive understanding of social interactions, cultural significances, and the perceptions and attitudes of stakeholders concerning the implementation of the curriculum. The integrated analysis of both quantitative and qualitative data will help reveal the underlying reasons for the research problem and provide more comprehensive recommendations for improving death education curriculum frameworks (Johnson & Onwuegbuzie, 2004).

Influence of Pragmatism: The methodological choices in this study are also influenced by pragmatist philosophy (Feilzer, 2010). Pragmatism emphasizes the importance of practical experience, arguing that the value of knowledge lies in its utility for solving real-world problems (Dewey, 1938). This study aspires to deliver an in-depth

study of the implementation of death curriculum in higher education institutions throughout mainland China using mixed-methods research. This comprehension seeks to provide valuable suggestions for refining curriculum design and augmenting implementation efficacy, thus more effectively addressing societal requirements.

In conclusion, the adoption of a mixed-methods approach in this study is not simply an endeavor to achieve methodological "integration"; rather, it is a deliberate decision rooted in a comprehensive understanding of the research problem and a thorough engagement with pertinent philosophical considerations. The chosen methods and strategies are intended to facilitate a convergence of theory and practice across the epistemological, ontological, and axiological dimensions. Ultimately, this integrated methodology aspires to produce research outcomes that are more thorough, insightful, and of practical significance.

3.3 Research Design

This study is conducted in two phases: an exploratory construction phase and a validation evaluation phase. The initial phase employs a convergent parallel mixed-methods design aimed at comprehensively understanding the current state of death education in higher education institutions in mainland China. This phase combines qualitative and quantitative approaches to inform the development of a structured curriculum framework. The second phase adopts a quasi-experimental design to evaluate the implementation outcomes of the developed curriculum, thereby providing empirical evidence for refining the death education curriculum framework. This research aims to systematically understand and enhance the practice of death education in mainland China.

Phase One: Curriculum Framework Development—Based on a Convergent Parallel Mixed-Methods Design

The initial phase of this study utilizes a convergent parallel mixed-methods design, emphasizing the equal importance of qualitative and quantitative methods. This phase is designed to conduct an in-depth investigation and evaluation of the current state of death education in higher education institutions in mainland China, leading to the construction of a systematic death education curriculum framework. Specific objectives include: (1) identifying specific needs and gaps in existing death education courses; (2) understanding

the attitudes and cultural perspectives of students, faculty, and administrators regarding the integration of death education into the curriculum; and (3) analyzing barriers and challenges including cultural, institutional, and social factors to the implementation of death education in higher education settings.

To achieve these objectives, qualitative and quantitative data were collected concurrently. Qualitative data were gathered through semi-structured interviews and focus groups, aiming to capture participants' perspectives, experiences, emotions, and contextual understandings of death education. Quantitative data were collected via questionnaires to quantify different groups' awareness, attitudes, and perceived barriers related to death education. These data served to complement, validate, and generalize qualitative findings.

Qualitative and quantitative data were analyzed separately to leverage the strengths of each method. Qualitative data underwent coding and thematic analysis to identify recurring patterns, key themes, and underlying meanings, thereby generating in-depth insights. Quantitative data were analyzed using descriptive and inferential statistics to summarize sample characteristics and compare attitudes, awareness, needs, and perceived barriers across different groups. After independent analysis, results from both datasets were integrated to achieve cross-validation and deeper interpretation, forming a comprehensive understanding of the reality of death education in mainland China. On this basis, a localized and systematic death education curriculum framework was constructed.

Phase Two: Curriculum Validation and Implementation—Based on a Quasi-Experimental Design

In the second phase, a quasi-experimental design was employed to examine the potential effects of the structured death education curriculum framework developed for higher education in mainland China and to translate research findings into practical application. The core objective of this phase is to systematically evaluate the impact of the death education curriculum on students' psychological well-being and professional readiness.

The quasi-experimental pre-test and post-test component of this study was designed to address Research Questions 13 and 14 under Objective 7. Specifically, RQ13 examines changes in students' psychological well-being and coping ability following participation in the structured death education curriculum, while RQ14 evaluates the curriculum's

impact on cultural competence and professional preparedness. These research questions are empirically tested through pre- and post-intervention comparisons using standardized instruments (DAP-R, CDS, and FATCOD-B).

To evaluate the impact of the structured death education curriculum, a baseline assessment was conducted prior to the intervention using the Death Attitude Profile-Revised (DAP-R) and the Coping with Death Scale (CDS). The baseline measurement established participants' initial levels of death attitudes and coping capacity, providing a reference point against which post-intervention changes could be assessed.

Following completion of the course, the same instruments were administered as post-tests to measure potential changes in psychological orientation toward death and coping competence. The use of identical standardized instruments at both time points ensures measurement consistency, enhances internal validity, and enables direct comparison of pre- and post-intervention outcomes. This approach allows the study to attribute observed changes to the structured death education curriculum with greater methodological rigor.

The study was conducted in a higher education institution in mainland China, with participants assigned to an experimental group and a control group. The experimental group received instruction based on the curriculum framework developed in the previous phase, while the control group consisted of students who did not participate in the course. Baseline assessments were administered to both groups before the intervention using Chinese versions of scales such as the DAP-R and CDS. The same instruments were used for post-test measurements after the course to compare changes in psychological well-being and professional preparedness.

In addition to quantitative data, qualitative feedback on students' learning experiences was collected after the intervention. Quantitative data were analyzed using descriptive and inferential statistics, while qualitative data were processed through coding and thematic analysis. By comparing differences between the experimental and control groups on key indicators and incorporating students' feedback and suggestions, the implementation effectiveness of the death education curriculum was comprehensively

evaluated. This provides an empirical basis for subsequent curriculum refinement and promotion.

The findings from this phase have not only provided data-driven support for death education practices in higher education but have also laid a solid foundation for the continuous improvement of the death education curriculum framework and its design. At the macro level, integrating outcomes from both phases has facilitated a systematic understanding of the actual needs, framework design, and implementation strategies for death education in mainland China, leading to evidence-based policy recommendations and practical guidance.

The specific research procedures are illustrated in Figure 3-1, and the relationship of Research Design Phases and Objectives Alignment is summarized in Table 3-1.

Figure 3- 1:
The Research Steps

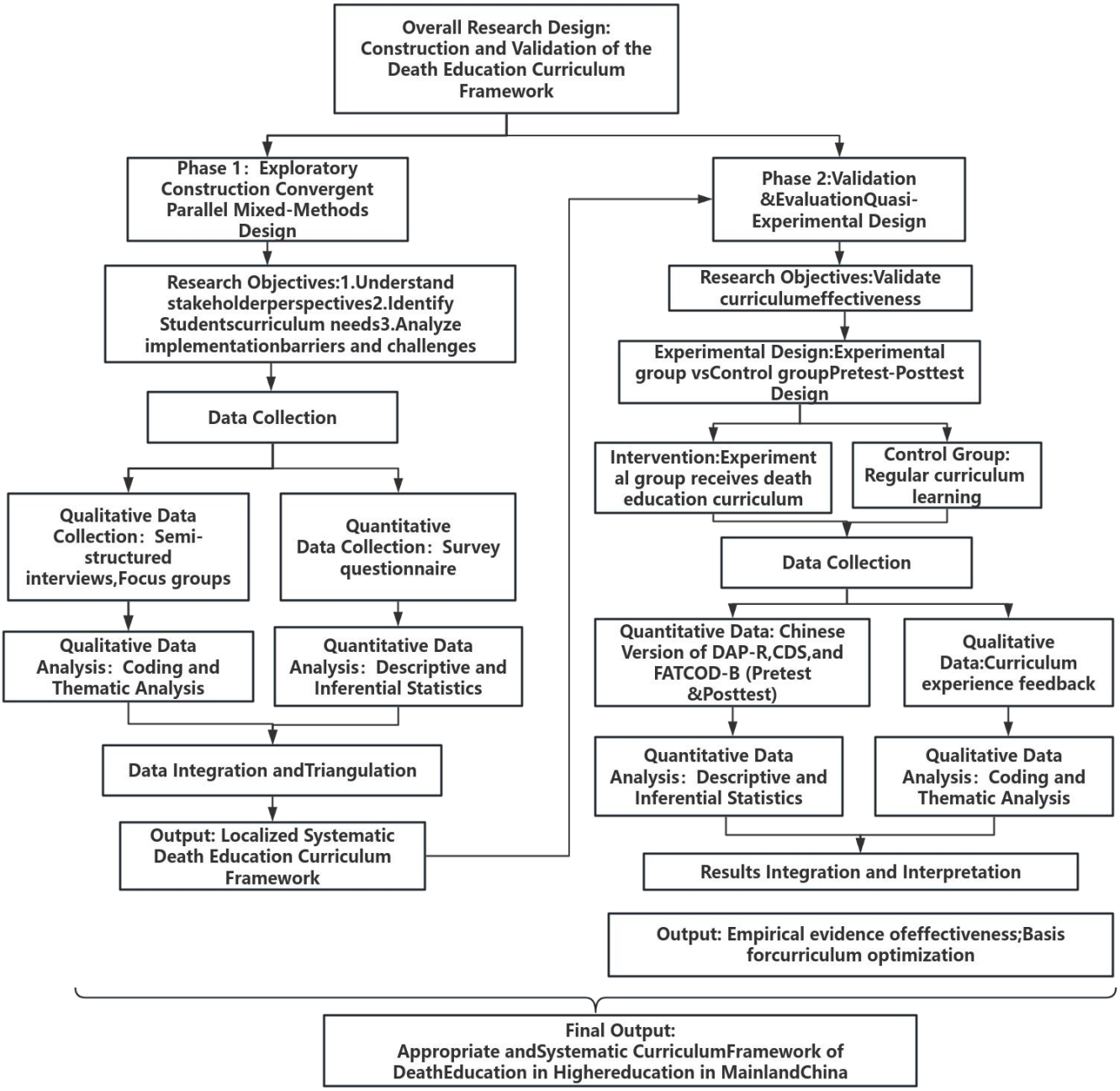


Table 3- 1:
Research Design Phases and Objectives Alignment Table

Research Objective	Research Design Phase	Data Sources	Analysis Methods	How Objective is Achieved
Objective 1	Phase 1	Interviews, Focus Groups, Surveys	Thematic & Statistical Analysis	Exploring needs & gaps through qualitative and quantitative data.
Objective 2	Phase 1	Interviews, Focus Groups, Surveys	Thematic & Statistical Analysis	Understanding perceptions and attitudes via qualitative and quantitative data.
Objective 3	Phase 1	Interviews, Focus Groups, Surveys	Thematic & Statistical Analysis	Identifying barriers through qualitative and quantitative data.
Objective 4	Phase 1 & Literature Review	Phase 1 Data, Literature	Thematic & Statistical Analysis, Literature Analysis	Comparing existing curriculum via collected data and literature review.
Objective 5	Phase 1 (Based on 1-4)	Phase 1 Results, Literature	Synthesis of Analysis Results	Proposing a new framework based on data & literature analysis.
Objective 6	Phase 1 (Based on 1-5)	Phase 1 Results, Literature, Practical Experiences	Synthesis of Analysis Results	Recommending strategies based on previous phases results.
Objective 7	Phase 2	Quasi-Experimental Design Measurements	Thematic & Statistical Analysis	Evaluating curriculum impact on students through a quasi-experimental design.

3.4 Ethical Considerations

This study aims to explore death education within higher education. Given the sensitive nature of the topic and the employment of multiple data collection methods (including questionnaires, interviews, and focus groups), strict adherence to ethical principles will be maintained throughout all phases of the research to ensure the full protection of the rights and well-being of all participants.

3.4.1 Distress Protocol (VR Simulation and Death Related Activities)

Given the potentially sensitive nature of death-related content in a cultural context where death may be perceived as taboo or "unlucky," this study implemented a structured Distress Protocol to safeguard participant well-being during interviews, focus group discussions, and VR-based scenario simulations. Participant safety was prioritized over data collection at all times.

Pre-session preparation and screening：

(1) Participants were briefed that the session may involve emotionally sensitive death-related content.

(2) Participants were reminded of their right to pause, skip questions/activities, or withdraw at any time without penalty.

(3) A brief check-in was conducted prior to the VR activity to confirm readiness to participate and to identify any participants experiencing acute distress.

Immediate response during a distress incident:

If a participant showed signs of distress (e.g., crying, panic symptoms, trembling, dissociation, inability to continue, verbal expressions of overwhelm), the facilitator applied the following steps immediately:

(1) Stop exposure immediately: The VR simulation was terminated and the headset removed, or the discussion was paused.

(2) Ensure privacy and safety: The participant was guided to a designated quiet area to reduce stimulation and protect confidentiality.

(3) Stabilization and grounding (5–10 minutes): The facilitator provided brief supportive assistance using basic grounding techniques (e.g., paced breathing, orientation to surroundings, reassurance, and allowing time to recover).

(4) Assess immediate risk and willingness to continue: The facilitator checked whether the participant felt safe, wished to discontinue, or required additional support.

(5) Terminate participation if needed: If distress persisted, participation was discontinued without penalty and no further data were collected during that session.

Escalation and clinical support pathway:

(1) Contact professional support: Where distress did not resolve promptly, the facilitator contacted the designated university counseling/psychological service contact for immediate guidance and support.

(2) Referral and facilitated handover: With the participant's consent, a referral was arranged to university counseling services (same day where feasible). A brief handover was provided to ensure continuity of care.

(3) Emergency response: If there were indicators of severe distress or risk of harm to self/others, institutional emergency procedures were activated (e.g., contacting campus medical services/emergency response and notifying relevant authorities in line with university policy).

Post-incident follow-up

(1) Follow-up contact: With consent, a welfare check was conducted within 24–48 hours to re-offer support and confirm well-being.

(2) Documentation: A confidential incident record was maintained (without unnecessary identifying details), noting the actions taken and referral outcome.

(3) Preventive review: The research team reviewed incidents to refine briefing/debriefing procedures and adjust VR exposure intensity or session pacing when necessary.

Personnel and competency

Sessions were facilitated by trained research personnel capable of identifying and responding to participant distress. Clinical support was provided through an established escalation pathway to professional counseling services.

3.4.2 Informed Consent

Detailed Information: Prior to the commencement of data collection, researchers will provide all participants with explicit details concerning the study's objectives, timeframe, and all procedures required for participation. Participants will be informed about the nature of the study, data collection methods (including online questionnaires, online interviews/focus groups, and potential in-person interviews/focus groups), data processing methods, and the intended use of the research findings.

Voluntary Participation: Researchers will emphasize to all participants that participation in this study is entirely voluntary. They have the right to withdraw at any time without incurring any negative consequences. Researchers will inform participants in advance about the potential implications of withdrawing from the study and will respect their autonomy in making this decision.

Informed Consent Form: All participants will receive a detailed informed consent form and will be required to sign it voluntarily after fully comprehending its content. For online data collection, researchers will ensure that the process of obtaining online consent is clear and user-friendly. The informed consent form will be written in easily understandable language to ensure participants have a clear understanding.

Informed Choice: Researchers will ensure that participants have ample time to consider their participation and will encourage them to ask any questions to ensure they make a fully informed decision.

3.4.3 Confidentiality and Anonymity

Identity Protection: All data collected, whether online or offline, will be anonymized to prevent the disclosure of personal identifying information. Participants' identities will be kept strictly confidential.

Data Security: For online questionnaires, researchers will utilize reliable online platforms and distribute survey links via platforms such as QQ and WeChat to ensure data transmission security and prevent data breaches. For online interviews and focus groups, researchers will use encrypted platforms such as Tencent Meeting and WeChat Video to ensure the confidentiality of the interview process.

Data Storage: All research data (including audio recordings, transcripts, questionnaire data, etc.) will be securely stored and accessible only to authorized research personnel. Data storage and processing will adhere to strict confidentiality protocols.

Data Usage: Research data will be used solely for the purposes of this study and will not be used for any other commercial or non-research purposes. No personally identifiable data will be disclosed to any third parties without explicit consent from the participant.

3.4.4 Handling Sensitive Topics

Respect and Care: Given the sensitivity of death education, researchers will handle research content and interview processes with great care to avoid causing any psychological distress to participants. During interviews, researchers will uphold the core ethical principle of "doing good and avoiding harm" and make every effort to minimize any potential risks to participants.

Non-Judgmental Listening: During interviews, regardless of format (online or in-person), researchers will employ non-judgmental listening techniques, respecting participants' individual views and emotions. Participants will be encouraged to share only what they feel comfortable with, and they will be free to choose whether or not to answer any question.

Emotional Support: If participants experience emotional distress during an interview or focus group, researchers will provide immediate emotional support, including pausing the interview, offering necessary comfort, or providing resources for psychological counselling. Participants will be informed in advance about available counselling services.

Technical Support: For online interviews, researchers will inform participants in advance about any potential technical issues and will offer corresponding technical support.

3.4.5 Cultural Sensitivity

Respect for Culture: This study will pay particular attention to the ethical considerations of conducting death education within the cultural context of Mainland China. Researchers will respect local cultural customs and values, and ensure that the research process complies with Chinese laws, regulations, and ethical norms.

Inclusivity: In selecting participants, cultural backgrounds and specific needs will be considered to ensure inclusivity and representativeness. Researchers will take care to avoid disturbing participants unfamiliar with online operations and will provide multiple data collection methods to meet the needs of diverse groups.

Flexibility: For online data collection, researchers will be mindful to avoid causing inconvenience to participants who may be less familiar with online operations. For example, we will use methods such as sending questionnaire links via QQ and WeChat,

allowing participants to complete questionnaires at their convenience, thereby maximizing respect for their autonomy and schedule.

3.4.6 Rigor of Research Instruments

Pilot Study: Before formally commencing fieldwork, researchers will conduct a pilot study to assess the clarity, feasibility, validity, and ethical soundness of the research instruments.

Factor and Reliability Analyses: Following the pilot study, exploratory factor analysis (EFA) and reliability analysis will be performed to ensure the suitability and reliability of the research instruments.

Method Variance Control: Necessary procedural measures will be taken to mitigate common method biases (Podsakoff et al., 2012). For example, questions will be carefully phrased in the questionnaires to ensure clarity and avoid leading questions.

3.5 Target Population and Sampling Method

The target population of this study consists of students, faculty, and administrative staff within higher education institutions in mainland China. The research focuses on investigating their attitudes toward death education courses, perceived needs, awareness of implementation barriers, as well as suggestions regarding curriculum design and implementation. Given the vast geographical expanse of China and the significant disparities in higher education resources and development levels across different regions, a hybrid sampling strategy combining stratified random sampling and purposive sampling was adopted to enhance the representativeness of the sample. This approach ensures that the sample covers diverse geographical areas, types of institutions, academic backgrounds, and various stakeholder groups.

3.5.1 Target Population and Sampling Frame

The study population comprises higher education institutions from all provinces, autonomous regions, and municipalities directly under the central government in mainland China. To capture regional diversity and disparities in educational development, this study

adopted the four major economic regions—eastern, central, western, and northeastern—as defined by the National Bureau of Statistics. One representative province was randomly selected from each region: Shandong (eastern), Jiangxi (central), Yunnan (western), and Jilin (northeastern). (see Figure 3-2) These provinces exhibit notable gradient differences and regional representativeness in terms of economic development stage, cultural traditions, social structure, and higher education policy environment, thereby providing a critical geographical comparative basis for this study.

Figure 3 - 2:
China Provinces and Autonomous Regions Map

Source: https://ontheworldmap.com/china/china-provinces-and-autonomous-region-map.html

3.5.2 Sampling Methods and Implementation

This study utilized a multi-stage mixed-methods sampling strategy to balance sample representativeness with the logical demands of empirical inquiry. The overall sampling process comprised four main stages, with the workflow and logical connections depicted in the following four stages.

3.5.2.1 Stage 1: Regional Stratification and Province Sampling

Based on the classification of four major economic regions (eastern, central, western, and northeastern) published by the National Bureau of Statistics (Shan & Li, 2022), a stratified random sampling method was adopted to independently select one representative province from each region. The sampling process ensured adequate representation of heterogeneity in economic development levels, distribution of higher education resources, and cultural-geographical characteristics across provinces. The final selected sample provinces were: Shandong (eastern), Jiangxi (central), Yunnan (western), and Jilin (northeastern). This stage of sampling provided structural assurance for regional diversity in Chinese higher education and established a geographical foundation for subsequent institution sampling.

3.5.2.2 Stage 2: Institutional Type Stratification and Site Sampling

This stage utilized a stratified sampling approach to determine sampling attributes along two dimensions: institutional tier and professional orientation, ultimately leading to the selection of target universities.

Institutional Tier Sampling

Referring to the classification of Chinese higher education institutions by administration level, four categories were used: private ordinary universities, public ordinary universities, Project 211 universities, and Project 985 universities (Qi & Du, 2019). Using random assignment, one institutional tier was allocated to each of the four provinces identified in Stage 1 to ensure gradient distribution in both administrative structure and academic level. The allocation results were as follows:

Shandong (eastern) → Private ordinary university; Jiangxi (central) → Public ordinary university; Jilin (northeastern) → Project 211 university; Yunnan (western) → Project 985 university

Professional Type Sampling

To further reflect disciplinary structural differences, participating institutions were classified into three categories according to their primary academic orientation: comprehensive, medical, and education. Similarly, a random sampling method was used to assign one professional type to each province-tier combination, ensuring diversity in

disciplinary perspectives for death education research. The sampling results were as follows:

Shandong (private ordinary) → Comprehensive; Jiangxi (public ordinary) → Medical; Jilin (Project 211) → Education; Yunnan (Project 985) → Comprehensive

Determination of Target Institutions

Based on the above sampling framework, four target institutions were finally selected using random sampling from the list of universities meeting the "province-tier-professional type" combination criteria:

Institution A: A private comprehensive ordinary university in Shandong Province; Institution B: A public medical university in Jiangxi Province; Institution C: A Project 211 normal university in Jilin Province; Institution D: A Project 985 comprehensive university in Yunnan Province

The basic characteristics of the selected institutions are presented in Table 3-1. This multi-attribute stratified sampling design ensured both national representativeness of the sample and internal diversity in institutional types and disciplinary characteristics, providing a methodological foundation for the generalizability of the research findings.

Table 3- 2:
Characteristics of Sampled Institutions

Institution	Sampling Stratum	Academic Focus	Research Significance and Representativeness
Institution A (Shandong)	Eastern Private Ordinary Comprehensive	Engineering, Economics, Management; emphasis on applied and professional competence	Represents attitudes toward death education practices and vocational perspectives among students in private comprehensive institutions in eastern China
Institution B (Jiangxi)	Central Public Ordinary Medical	Clinical Medicine, Nursing, Pharmacy; rigorous professional medical education	Reflects views of students in public medical institutions in central China, highlighting attitudes of future frontline healthcare professionals toward death
Institution C (Jilin)	Northeastern Project 211 Education	Education, Psychology; cultivating future outstanding educators	Represents perspectives of Project 211 normal universities in northeastern China, showcasing views and roles of future education policymakers, practitioners, and promoters in death education
Institution D (Yunnan)	Western Project 985 Comprehensive	Humanities, Sciences, Engineering, Medicine, etc.; diverse academic backgrounds	Represents multidisciplinary perspectives of faculty and students with high academic backgrounds in Project 985 comprehensive universities in western China regarding death education

3.5.2.3 Stage 3: Sampling of Research Participants for Surveys, Interviews, and Focus Groups

Based on the four identified target institutions, appropriate probability and non-probability sampling strategies were employed to select research participants according to data characteristics and research objectives:

Quantitative Research Samples: A stratified random sampling method was used. For student samples, academic discipline served as the primary stratification variable, with undergraduates selected via simple random sampling within each institution. A total of 480 questionnaires were distributed across the four institutions, with 406 valid responses returned, yielding an effective response rate of 84.6%. For faculty and staff samples, stratification was based on academic discipline and position type (full-time teacher/administrative staff), followed by random sampling within each stratum. A total of 400 questionnaires were distributed, with 392 valid responses returned, resulting in an effective response rate of 98.0%.

Qualitative Research Samples: A purposive sampling strategy was employed. Based on criteria including professional field relevance to death education and teaching/administrative experience, 20 teachers and 8 administrative staff were selected as participants. For student focus groups, to ensure disciplinary diversity, 30 students were selected via stratified random sampling from different academic fields, forming 6 focus groups of five each.

3.5.2.4 Stage 4: Quasi-Experimental Research Design

Based on the findings from preliminary questionnaires, interviews, and focus groups, this study designed and implemented a quasi-experiment in its final phase to evaluate the effectiveness of the death education curriculum.

The quasi-experimental sample was selected via a purposive sampling strategy, based on disciplinary typicality: medical students encounter death-related scenarios due to professional demands, while education students are expected to undertake responsibilities delivering life-and-death education. 160 medical and education students were recruited from University D, which offers both disciplines.

After recruitment, stratified randomization was employed for group assignment. With academic major (Medical vs. Education) as the primary stratification variable, and

controlling for covariates such as gender and grade, block randomization was implemented using the SAS 9.4 PROC PLAN procedure (block size = 8). Participants were divided into four groups: a medical experimental group (n = 40), a medical control group (n = 40), an education experimental group (n = 40), and an education control group (n = 40). The inter-group allocation ratio was 1:1, ensuring balanced baseline characteristics across groups (SAS Institute, 2019).

Subsequently, a post-interview session was incorporated into the quasi-experimental phase to gain in-depth insights into participants' subjective experiences with and suggestions for the death education curriculum. The interview sample was selected from quasi-experimental participants using stratified random sampling. Stratification was first conducted based on experimental grouping (experimental/control) and academic major (Medical/Education) to ensure representation from each subgroup. Then, two participants were randomly selected from each stratum, resulting in a final interview sample of 16 students (4 conditions × 2 majors × 2 groups).

The specific sampling stages are visually represented in the following three figures.

Figure 3- 3:
Sampling Framework of Stage 1 and 2

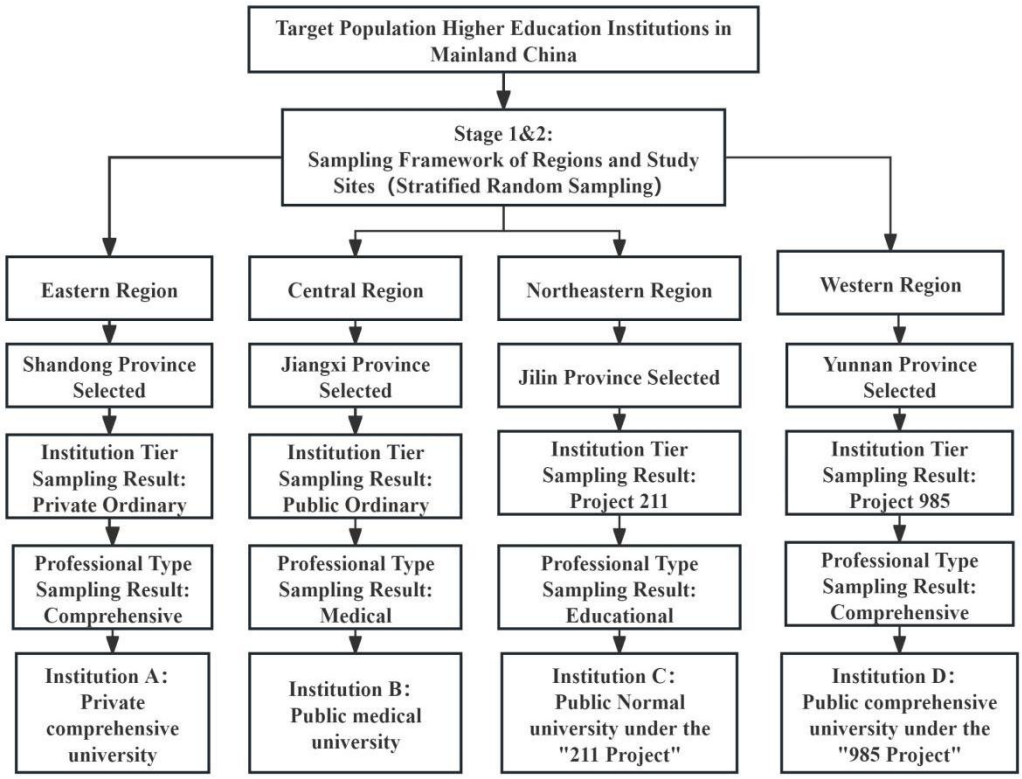


Figure 3- 4:
Sampling of Participants for Stage 3

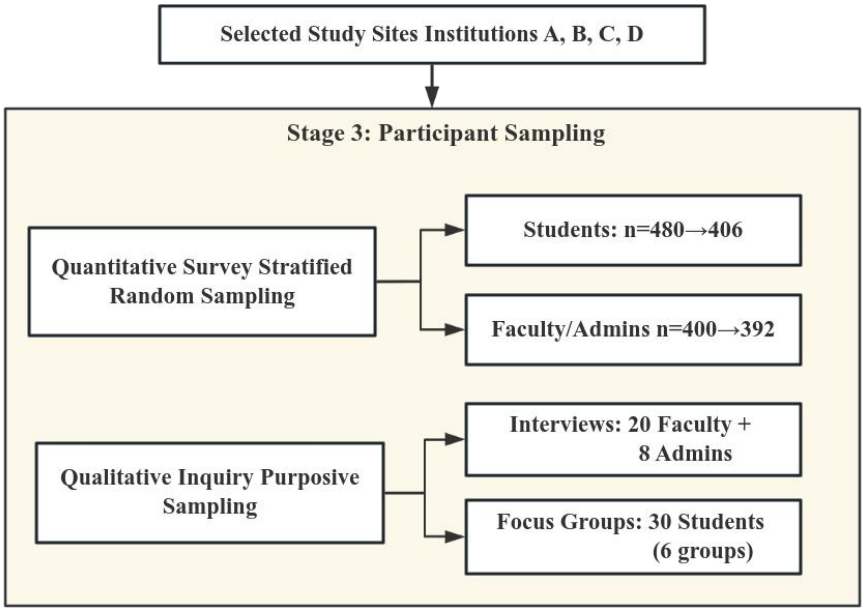
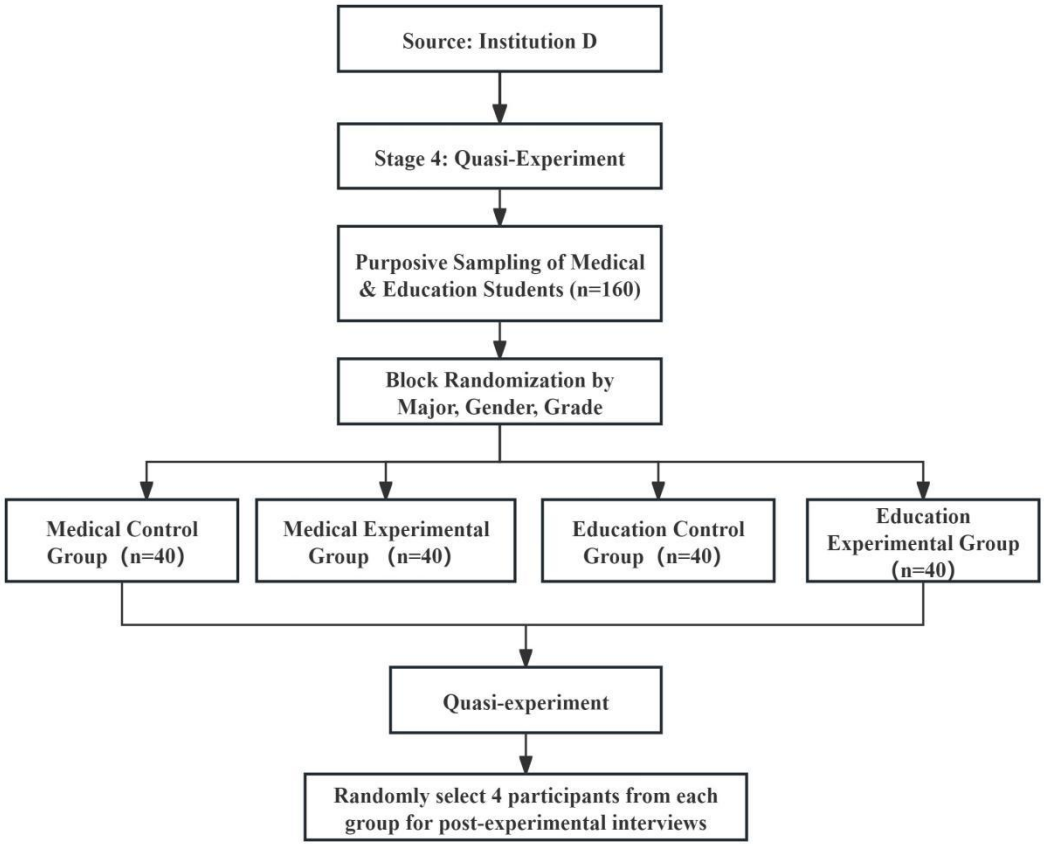


Figure 3- 5:
Sampling and Allocation for Stage 4



3.5.2.4.1 Participant Selection and Group Allocation

The quasi-experimental phase involved 160 students drawn from medical and education programs. Participants were selected using stratified purposive sampling to ensure representation across academic major, gender, and year of study. Due to institutional constraints, intact class groups were assigned to experimental and comparison conditions rather than random individual assignment, consistent with quasi-experimental design principles.

The experimental group received the structured death education intervention, while the comparison group continued with the standard curriculum. Pre-test measures (DAP-R, CDS, and FATCOD-B where applicable) were administered to both groups prior to the intervention to establish baseline equivalence.

3.5.2.4.2 Selection of Post Experiment and Interview

Following the intervention, 16 students were selected for in-depth semi-structured interviews to explore their learning experiences and perceived psychological and professional changes. Participants were purposively selected to ensure variation in academic major, gender, and observed change patterns (e.g., high, moderate, and minimal score changes). The sample size of 16 was considered sufficient to achieve thematic saturation while allowing for in-depth qualitative exploration.

3.5.3 Target Sample Size

This study employed a mixed-methods approach integrating quantitative, qualitative, and quasi-experimental research designs. The sample size for each component was determined according to respective methodological requirements, balancing statistical power with depth and richness of data.

The minimum required sample size for the questionnaire survey was determined using Krejcie and Morgan's (1970) sample size determination table, which indicates that for large populations (N > 1,000), a minimum of 384 participants is required to achieve a 95% confidence level with a 5% margin of error.

3.5.4 Sampling Adequacy and Justification

For the student sample, 480 questionnaires were distributed using stratified sampling to ensure proportional representation across academic disciplines. A total of 406 valid responses were received (response rate = 85%), exceeding the minimum required sample size of 384.

For faculty participants, purposive sampling was employed to target individuals with relevant teaching experience and institutional insight. Of the 400 questionnaires distributed, 392 were returned (response rate = 98%), also exceeding the minimum sample size requirement.

Therefore, both student and faculty samples meet statistical adequacy requirements and provide sufficient power for subsequent factor analysis and structural modeling procedures.

Additionally, the sample size exceeds the commonly recommended threshold of 10–20 participants per observed variable for confirmatory factor analysis, further supporting the robustness of the measurement model.

3.5.4.1 Quantitative Survey Sample

The core quantitative investigation aimed to comprehensively examine students' attitudes, needs, and suggestions regarding death education. The sample size was determined primarily with reference to Krejcie and Morgan's (1970) sample size determination table. This table indicates that a minimum sample size of 384 is required when the population size reaches 100,000, at a 95% confidence level and with a ±5% margin of error. According to China's Ministry of Education "2023 National Education Development Statistical Bulletin," the total population of regular undergraduate and vocational college students exceeds 37 million, while the total number of higher education faculty and staff reaches 2.871 million—both significantly exceeding this threshold. Accordingly, the minimum sample size for the quantitative component was set at 384. To mitigate potential bias from invalid responses (such as non-return, incomplete answers, or logical errors), 480 student questionnaires were actually distributed, with 406 valid responses returned, yielding an effective response rate of 84.6%. Similarly, 400 faculty and

staff questionnaires were distributed, with 392 valid responses obtained, resulting in an effective response rate of 98.0%. Detailed questionnaire sampling data are presented in Table 3-2 and Table 3-3.

Table 3-3:
Student Questionnaire Sampling Details

Sampling Indicator	Institution A (Shandong)	Institution B (Jiangxi)	Institution C (Jilin)	Institution D (Yunnan)	Total
Institution Attributes					
Region	Eastern	Central	Northeastern	Western	
Institution Type	Private Ordinary Undergraduate	Public Medical Undergraduate	Public Project 211	Public Project 985	
Questionnaire Distribution & Collection					
Questionnaires Distributed	120	120	120	120	480
Valid Responses Collected	115	100	95	96	406
Valid Responses Collected	115	100	95	96	406
Valid Response Rate(%)	95.8	83.3	79.2	80.0	84.6
Disciplinary Distribution(n)					
Humanities	23	-	20	16	59
Social Sciences	24	-	19	15	58
Natural Science	26	-	11	17	54
Engineering	24	-	18	12	54
Education	18	-	27	14	59
Healthcare/ Medicine	-	100	-	22	122
Total	115	100	95	96	406

Table 3-4:
Faculty and Staff Questionnaire Sampling Details

Statistical Indicator	Institution A (Shandong)	Institution B (Jiangxi)	Institution C (Jilin)	Institution D (Yunnan)	Total
	Private Undergraduate	Public Medical	Public Project 211	Public Project 985	
Questionnaire Distribution & Collection					
Questionnaires Distributed	100	100	100	100	400
Valid Responses Collected	99	97	98	98	392
Valid Response Rate(%)	99.0	97.0	98.0	98.0	98.0
Position Distribution					
Full-time Faculty(n)	85	88	82	90	345
Administrative Staff(n)	14	9	16	8	47
Disciplinary Distribution(n)					

Humanities	19	-	20	16	55
Social Sciences	19	-	20	16	55
Natural Science	20	-	19	16	55
Engineering	20	-	19	16	55
Education	21	-	20	17	58
Healthcare/Medicine		97	-	17	114
Total	99	97	98	98	392

3.5.4.2 Qualitative Interview Sample

The interview participants, comprising both faculty and administrative staff, were selected through purposive sampling, targeting individuals whose professional expertise and job responsibilities were highly relevant to death education. The sample size was determined according to the principle of "data saturation" in qualitative research, whereby sampling ceases when new data no longer yield additional themes or insights (Yang et al., 2022). A total of 20 faculty members and 8 administrative staff were ultimately recruited for semi-structured interviews. This sample size aligns with common practices in qualitative interview-based studies and is sufficient to obtain in-depth and richly informative data (Bekele & Ago, 2022).The sampling details are presented below:

Table 3- 5:
Faculty Interview Sample Characteristics

No.	Institution	Name	Age	Major	Main Research/Responsibility
1	A	T1	35	Education	Curriculum Development
2	A	T2	48	Psychology	Psychological Counseling
3	A	T3	39	Psychology	Mental Health
4	A	T4	36	Psychology	Student Psychology
5	A	T5	39	Psychology	Crisis Intervention
6	B	T6	52	Clinical Med.	Clinical Ethics
7	B	T7	51	Pharmacy	Pharmaceutical Ethics
8	B	T8	42	Nursing	End-of-Life Care
9	B	T9	40	Medicine	Medical Humanities
10	B	T10	50	Medicine	Medical Humanities
11	C	T11	33	Education	Life and Death Education
12	C	T12	60	Sociology	Social Ethics
13	C	T13	29	Curriculum	Curriculum Integration
14	C	T14	33	Education	Life and Death Education
15	C	T15	45	Philosophy	Existentialism
16	D	T16	56	Nursing	Nursing Education
17	D	T17	27	Arts	Art Therapy
18	D	T18	47	Medical Ethics	Medical Ethics

19	D	T19	29	Literature	Life Stories
20	D	T20	32	Engineering	Engineering Ethics

Table 3- 6:
Administrative Staff Interview Sample Characteristics

No.	Province	Name	Age (Years)	Main Area
1	Shandong	Admin L1	48	Education Management
2	Shandong	Admin L2	42	Administrative Management
3	Jiangxi	Admin L3	53	Education Management
4	Jiangxi	Admin L4	46	Medical Management
5	Jilin	Admin L5	49	Academic Management
6	Jilin	Admin L6	55	Personnel Management
7	Yunnan	Admin L7	58	Education Management
8	Yunnan	Admin L9	40	Medical Management

3.5.4.3 Focus Group Sample

Student focus group participants were selected through stratified random sampling, aiming to capture group perceptions and interactive perspectives from students across diverse academic backgrounds. The sample size was determined following the principle of data saturation. A total of 30 students were recruited, forming 6 focus groups (5 participants per group). This scale ensured sufficient opportunity for individual expression while maintaining diversity of perspectives and achieving data saturation (Hennink et al., 2019). The sampling details are presented below:

Table 3- 7:
Focus Group Sample Characteristics

Institution	Focus Group Participants	Number of Focus Groups	Notes (Focus Group Student Composition)
Institution A	5	1	Focus group students are from different disciplines at Institution A, including Humanities, Social Sciences, Natural Science, Engineering, and Education.
Institution B	5	1	Focus group students primarily come from Institution B, with majors in Medicine and Nursing.
Institution C	10	2	Focus group students are from different disciplines at Institution C and are divided into two groups. The first group includes Humanities, Social Sciences, Natural Science, Engineering, and Education. The second group focuses exclusively on Education students.
Institution D	10	2	Focus group students are from different disciplines at Institution D and are divided into two groups. The first group includes representatives from Humanities, Social Sciences, Natural Science, Healthcare/Medicine,

			Engineering, and Education. The second group focuses exclusively on Healthcare/Medicine-related fields.
Total	30	6	

3.5.4.4 Quasi-Experimental Research Sample

The quasi-experimental component aimed to examine the effectiveness of the death education curriculum, with the sample size determined primarily based on statistical power considerations and practical feasibility. The study recruited 160 students from institutions offering both medical and education programs. Participants were divided into four groups (40 participants each) through block randomization, controlling for variables including major, gender, and academic year. This sample size provided the necessary statistical foundation for quasi-experimental comparisons. For the post-experiment interviews, a sample of 16 students was formed (40 students from each control or experimental group). This sample size likewise adhered to the principle of data saturation in qualitative research.

In summary, the determination of sample sizes for all components of this study followed scientific standards appropriate to their respective research paradigms, balancing generalizability with depth of investigation, thereby providing a solid foundation for the effective implementation of the research.

3.5.5 Rationale for Stratified and Purposive Sampling

3.5.5.1 Rationale for Stratification

To enhance representativeness, this study employed a stratified sampling strategy based on geographical region and institution type. Stratification was necessary due to documented variations in higher education resources, cultural perspectives, and awareness of and demand for death education across different regions of China (Hong, 2018; Rao & Li, 2013).

Regional Stratification: This study employed stratified random sampling at the geographical level, dividing the country into four major regions (eastern, central, western, and northeastern) according to the economic geographic classification standard published by the National Bureau of Statistics in 2021. One representative province was randomly selected from each region: Shandong (eastern), Jiangxi (central), Yunnan (western), and

Jilin (northeastern). These provinces exhibit significant gradient differences and regional representativeness in terms of economic development level, cultural traditions, social structure, and higher education policy environment. By drawing approximately equal-sized samples from each geographical stratum, the study effectively controlled for potential sampling bias due to uneven geographical distribution, avoiding inferential limitations caused by over-representation of any single region. This sampling strategy enhanced the structural validity and diversity of the sample at the national level, providing a solid geographical foundation for the universality and explanatory power of the research conclusions.

Institution Type Stratification: Institutional type represents a critical dimension influencing educational resource allocation, disciplinary structure, and educational orientation. Following the principle of stratified sampling, this study encompassed four representative institution types: Private Ordinary Undergraduate Institutions (A), Public Medical Undergraduate Institutions (B), Public Project 211 Normal Universities (C), and Public Project 985 Comprehensive Universities (D). This design incorporates multiple structural dimensions, including governance structure (public/private), disciplinary characteristics (medical, normal education, comprehensive), and academic hierarchy (ordinary institutions/Project 211/Project 985), thereby systematically reflecting the primary typological variations within China's higher education system.

The inclusion of medical and normal universities holds particular research significance. Medical institutions exemplify the professional attitudes of healthcare personnel towards death awareness, end-of-life care, and ethical decision-making. Normal universities reflect future educators' comprehension of death education, their intention to implement related curricula, and their potential for disseminating it within the educational system. These two institution types provide crucial perspectives from the core dimensions of "death cognition and emotional care" and "death education practice and dissemination," significantly enhancing the sample's diversity and completeness in terms of disciplinary structure, professional background, and typological coverage. Consequently, this improves the broad applicability and representativeness of the research findings.

Reducing Sampling Error and Enhancing Representativeness: Stratified sampling ensures the proportional inclusion of important subgroups, providing a more accurate representation of the population (Iliyasu & Etikan, 2021). Without stratification,

the sample could be biased, for example, by over-representing faculty and students from developed regions or well-resourced institutions, potentially leading to overly optimistic or one-sided opinions regarding the design and implementation of death education courses. Stratification ensured that differences in awareness of death education courses, needs for such courses, and suggestions for their design were fully captured, thereby enhancing the generalizability of the study.

3.5.5.2 Rationale for Purposive Sampling

Purposive sampling is suitable for research aimed at obtaining in-depth information, testing specific theoretical constructs, or focusing on the characteristics of particular subgroups (Stratton, 2024). Given that the theme of death education is highly context-sensitive and discipline-specific, using simple random sampling might fail to effectively cover target populations with crucial relevant experiences (Makwana et al., 2023). Therefore, this study consciously selected faculty and staff with relevant professional backgrounds, curriculum development experience, or teaching management responsibilities, as well as students from typical disciplinary fields such as medicine and education. This approach facilitated the collection of rich and focused qualitative data, thereby deeply revealing the practical obstacles, real needs, and feasibility conditions encountered in the implementation process of death education, providing a solid foundation for constructing a death education curriculum system suited to the Chinese higher education context.

In conclusion, by setting a minimum target sample size of 384 for the quantitative questionnaire and comprehensively using stratified and purposive sampling strategies, this study achieved a balance between statistical rigor and contextual representativeness, enhancing the robustness, practical explanatory power, and generalizability of the research conclusions.

3.5.6 Inclusion and Exclusion Criteria

Establishing clear inclusion and exclusion criteria is crucial for ensuring the reliability, validity, and relevance of the research results. The criteria for this study aimed to precisely identify the target population—university students, teachers, and administrative staff in Chinese higher education institutions—while excluding individuals whose characteristics or situations fell outside the scope of the research.

3.5.6.1 Inclusion Criteria

University Students: Limited to full-time undergraduate students officially enrolled in their first to fourth years at national regular higher education institutions, ensuring participants are in the targeted stages of higher education and are potential recipients of university death education courses.

University Faculty and Administrative Staff: Faculty must be currently engaged in teaching or research work at a university; administrative staff must be currently employed in management or service roles at a university, with their work areas related to curriculum development, student management, medical education, or humanities education. This ensures participants have direct experience and insights into university curriculum design, teaching implementation, and management processes.

Diversity of Academic Backgrounds (for both students and faculty/staff): Participants needed to come from diverse academic backgrounds, specifically including healthcare-related fields (e.g., medicine, nursing), humanities and social sciences (e.g., psychology, sociology, education, philosophy, literature), as well as science and engineering disciplines, to capture death education needs from different professional perspectives.

Basic Cognitive Ability (for students): Participants should be able to understand the questionnaire and interview questions and articulate their views and experiences clearly.

3.5.6.2 Exclusion Criteria

Non-Current Students: Graduates, postgraduate students (master's/doctoral), part-time students, visiting students, etc., were excluded because their campus experience and learning environment differ from those of full-time undergraduate students in their first to fourth years.

Personnel Unrelated to the Higher Education Field: Non-university teachers or administrative staff, or individuals whose job responsibilities are completely unrelated to curriculum setting, teaching implementation, or student management were not included, ensuring the sample solely originates from the frontline of educational practice and management.

Individuals Completely Unable to Access or Understand the Research Content: This includes individuals with severe cognitive impairments who cannot communicate effectively or provide informed consent.

Individuals with Severe Psychological Disorders: Those experiencing acute episodes of severe depression, anxiety, or other mental disorders were excluded, as participation in the study could pose potential risks to their psychological state.

Individuals with Absolutely No Relevant Experience or Reflection in Qualitative Research: In qualitative research (including interviews and focus groups), potential participants who not only lacked direct relevant experience with death education but also had no basic knowledge of the subject or had never engaged in any active reflection on it were excluded. Such participants would likely struggle to provide substantive responses to interview or discussion content and could not offer valuable information or deep insights for the study.

3.5.6.3 Rationale for Criteria

The establishment of these inclusion and exclusion boundaries was to ensure a close fit between the sample group and the research objectives. By focusing on enrolled undergraduates and faculty/staff closely involved in curriculum development and educational management, this study prioritized selecting participants who could provide relevant, current, and actionable insights. Conversely, excluding other groups eliminated the risk of collecting irrelevant or invalid data that could compromise the study's validity. Therefore, the final sample represents a group capable of: directly providing frontline perspectives on university death education, actively responding to the practical challenges of implementing death education, and offering informed viewpoints on the awareness, needs, design, and implementation of death education courses. This approach simultaneously enhances the study's internal validity (consistency with the research questions) and external validity (generalizability to university populations in similar contexts within mainland China).

3.6 Research Philosophy and Paradigm

This study is grounded in a pragmatic research paradigm, which is particularly appropriate for mixed-methods inquiry. Pragmatism emphasizes the practical

consequences of research and prioritizes methodological flexibility in addressing complex real-world problems. Given that death education in Mainland China involves cultural, institutional, psychological, and pedagogical dimensions, a pragmatic stance enables the integration of qualitative and quantitative approaches to generate contextually meaningful and actionable insights.

From an ontological perspective, the study adopts a pluralistic view of reality. It recognizes that perceptions of death education are socially constructed and culturally influenced, while also acknowledging measurable psychological and educational outcomes resulting from structured curricular intervention.

Epistemologically, the study integrates interpretivist and post-positivist orientations. The qualitative components (interviews and focus groups) seek to understand subjective meanings, cultural sensitivities, and institutional experiences related to death education. The quantitative components, including survey analysis and quasi-experimental testing, adopt a post-positivist stance to examine measurable relationships and intervention effects.

Axiologically, the research acknowledges the value-laden nature of death education, particularly within a culturally sensitive context. Ethical considerations, cultural respect, and participant well-being were prioritized throughout the study design and implementation.

Methodologically, the pragmatic paradigm justifies the use of a mixed-methods sequential design, combining exploratory qualitative analysis, large-scale survey measurement, curriculum redesign, and quasi-experimental evaluation. This integrated approach aligns with the study's objective of both understanding and improving death education practices in higher education.

3.7 Research Instruments

This study adopted a mixed-methods research design integrating qualitative and quantitative approaches to comprehensively examine the needs, barriers, and strategic

pathways for redesigning and implementing death education courses in higher education institutions in Mainland China. To address the research objectives, multiple research instruments were developed and administered, including a semi-structured interview guide, a focus group discussion protocol, a structured questionnaire survey (with pre- and post-test components), and standardized psychometric scales: the Death Attitude Profile-Revised (DAP-R), the Coping with Death Scale (CDS), and the Frommelt Attitudes Toward Care of the Dying Scale, Form B (FATCOD-B). The following sections provide a detailed description of each instrument, including its design rationale and alignment with the corresponding research objectives and research questions.

Although the DAP-R, CDS, and FATCOD-B were originally developed in Western contexts, their inclusion in this study was guided by two considerations. First, these instruments have demonstrated robust psychometric properties across diverse cultural settings. Second, using standardized scales allows for comparability with international literature, situating the present findings within the broader global discourse on death education. Prior to administration, the instruments underwent translation and back-translation procedures and were reviewed for semantic and cultural appropriateness. Nonetheless, it is acknowledged that certain culturally nuanced interpretations of death-related constructs may not be fully captured by Western-developed frameworks.

The structured questionnaire developed for this study is titled the “Questionnaire on Perceptions and Implementation of Death Education in Higher Education.” It consists of five primary constructs: Perceived Importance of Death Education, Attitudes Toward the Inclusion of Death Education, Barriers to Implementing Death Education, Knowledge of Death Education and Related Topics, and Psychological and Professional Benefits of Death Education.

3.7.1 Qualitative Research Instruments

3.7.1.1 Semi-Structured Interview Guide for Faculty and Administrators

3.7.1.1.1 Instrument Description

Semi-structured interviews are a qualitative data collection method where the researcher uses a set of pre-established questions but allows for flexibility to explore topics

that emerge during the conversation. The interviewer follows a flexible framework, engaging with the interviewee's responses and probing further for deeper insights (Kvale, 2007).This method is particularly useful for understanding the perspectives, experiences, and perceptions of participants on a specific topic, in this case, death education in higher education institutions.

In the context of this research, semi-structured interviews will be conducted with faculty members and administrative staff in higher education institutions in Mainland China. The aim is to explore their attitudes, perceptions, and experiences regarding the integration of death education into the curriculum, as well as to identify the cultural, institutional, and practical barriers they face in implementing such a curriculum. These interviews will provide rich, qualitative data on the institutional challenges and potential solutions to overcoming barriers to death education.

3.7.1.1.2 Instrument Structure and Design Rationale

The interview Structure for Faculty Members and Administrators employs semi-structured interviews to systematically explore college teachers' and administrators' multi-dimensional perceptions of death education, closely aligning with research objectives (RO) and research questions (RQ). The Instrument Structure and design rationale is as follows:

(1) Section 1: Attitudes towards the Inclusion of Death Education in the Curriculum (Corresponding to RO1, RO2, RQ1-3)

Core Approach: Clarify educational needs and stakeholders' perceptions through teachers' definitions of death education, its disciplinary relevance, and curricular value.

Question Design Logic:

Progress from foundational understanding (Question 1) to attitudinal judgments (Questions 2-3) and curricular positioning (Questions 4-5), revealing teachers' cognition of death education as "what it is, whether it is needed, and how it should be positioned." Directly addresses RQ1 (knowledge/skill gaps), RQ2 (educational needs of teachers and students), and RQ3 (perceived importance).

Highlight adaptability to healthcare, social science, and other disciplines (Questions 3, 5) to lay groundwork for the professional competency module.

(2)Section 2: Perceived Cultural Barriers to Discussing Death in an Academic Context (Corresponding to RO2, RO3, RQ4-5)

Core Approach: Analyze the impact of China's "death taboo" culture on teaching and identify cultural resistance and potential solutions.

Question Design Logic: Move from the macro-influence of cultural traditions (Question 1) to observations of resistance in specific scenarios (Question 2), then to feasibility assessment and solutions (Questions 3-5), forming a closed loop of "barrier identification-impact analysis-solution proposal." Directly corresponds to RQ4 (influence of cultural beliefs) and RQ5 (manifestations of cultural barriers).

Emphasize the possibility of "culturally sensitive teaching" (Question 5) to provide a cultural adaptation basis for subsequent curriculum framework design.

(3) Section 3: Institutional and Logistical Challenges in Implementing Death Education (Corresponding to RO3, RO6, RQ5-6, RQ12)

Core Approach: Systematically identify policy, resource, and faculty-related institutional barriers and assess interdisciplinary implementation differences.

Question Design Logic: Cover the full chain of institutional implementation, from institutional challenges (Questions 1-3) to faculty preparation (Question 4) and administrative support (Question 5), addressing RQ5 (institutional barriers), RQ6 (interdisciplinary differences in barriers), and RQ12 (role of institutional support).

Focus on curriculum structure adaptability (Question 3) and faculty incentive mechanisms (Question 4) to provide practical suggestions for RO6 (implementation strategies).

(4) Section 4: The Role of Death Education in Preparing Students for Professional Practice (Corresponding to RO2, RO6, RQ3, RQ11)

Core Approach: Establish the link between death education and professional competency development, highlighting its practical value for healthcare, social work, and other professions.

Question Design Logic: Uncover the path to improving professional literacy through importance assessment (Question 1), skill extraction (Questions 2-3), domain focus (Question 4), and psychological preparation (Question 5), corresponding to RQ3 (value for professional competencies) and RQ11 (curriculum integration strategies).

Stress "emotional and psychological preparation" (Question 5) to address the need for end-of-life communication skills in healthcare and other fields.

(5) Section 5: Suggestions for Improving or Redesigning the Curriculum (Corresponding to RO5, RO6, RQ9-10, RQ12)

Core Approach: Collect specific suggestions on curriculum form, teaching methods, and resource support to construct a culturally sensitive educational framework.

Question Design Logic: Form a complete list of curriculum design elements, from integration models (Questions 1-2) to resource needs (Question 3), teaching methods (Question 4), and audience adaptability (Question 5), corresponding to RQ9 (core framework components), RQ10 (balance between theory and practice), and RQ12 (faculty/resource support).Highlight "experiential learning" (Question 4) and "mitigating cultural discomfort" (Question 5) to ensure the framework's local feasibility.

(6) Section 6: Conclusion and Reflection (Corresponding to RO2, RO3, RQ3, RQ5, RQ12)

Core Approach: Synthesize prior insights to extract the overall impact, common barriers, and cross-departmental collaboration paths of death education.

Question Design Logic: Integrate teachers' in-depth reflections on implementation prospects through questions about educational experience impact (Question 1), supplementary insights (Question 2), and challenges of mandation (Question 3), corresponding to RQ3 (overall attitudes), RQ5 (common barriers), and RQ12 (cross-departmental collaboration needs).Emphasize "specific paths to overcome challenges" (Question 3) to provide top-level design ideas for RO6 (implementation strategies).

Summary： Starting from the dual perspectives of "institutional designers + frontline implementers," it focuses on structural barrier analysis and curriculum framework construction to ensure professionalism and practicality of suggestions.

(A detailed list of interview questions is included in Appendix 1.)

3.7.1.1.3 Advantages of Semi-Structured Interviews for This Study

In-depth Understanding: They allow for an in-depth exploration of participants' attitudes, perceptions, and experiences, which are essential for understanding the barriers and needs in death education.

Flexibility: The interviewer has the freedom to adjust the questions or explore new directions based on participants' responses, which is crucial when discussing a sensitive topic like death.

Cultural Sensitivity: Semi-structured interviews provide an opportunity to tailor the conversation to address culturally specific concerns and taboos surrounding death in Chinese society.

3.7.1.1.4 Challenges and Considerations

Participant Reluctance: Some participants may feel uncomfortable discussing death due to cultural taboos or personal discomfort. This may require the interviewer to build rapport and ensure participants feel safe and supported.

Language and Communication: If participants speak different Chinese dialects or if English is used in interviews, language barriers may arise, requiring careful translation and clarification.

3.7.1.1.5 Conclusion

Semi-structured interviews will be a crucial method for gathering qualitative data in this study. They will provide rich, detailed insights into the perceptions and experiences of faculty and administrators regarding death education, the cultural barriers that exist, and the poential for curriculum redesign. This method is particularly suited for exploring sensitive topics like death, where understanding the nuances of attitudes and perceptions is essential for developing an effective and culturally appropriate curriculum.

3.7.1.2 Focus Group Discussion Guide for Students

3.7.1.2.1 Participant Selection for Focus Group Discussions

Participants for the focus group discussions were selected in accordance with the inclusion and exclusion criteria outlined in Section 3.5.5. Eligible participants included students and faculty members who had direct experience with or expressed interest in death education-related topics within higher education. Individuals without relevant academic or experiential exposure to the subject were excluded to ensure meaningful discussion.

Each focus group comprised 6–10 participants with broadly similar academic backgrounds or professional roles to promote open dialogue and shared contextual understanding. Group composition was designed to facilitate homogeneity in experience while allowing for diversity in perspectives, thereby enhancing the depth and richness of qualitative insights.

3.7.1.2.2 Instrument Description

Focus group discussions (FGDs) are a qualitative data collection method used to gather insights from a group of people on a specific topic. A group of 6 to 10 participants, typically with similar characteristics or experiences, discusses the topic guided by a facilitator. The goal of an FGD is to encourage interaction among participants, allowing them to express and build upon each other's thoughts and experiences (Krueger & Casey, 2015). In this study, FGDs will help capture the collective perceptions, attitudes, and experiences of students regarding the inclusion of death education in the curriculum.

The focus group discussions in this study will provide insights into the views and experiences of students from various academic disciplines regarding the potential introduction of death education in higher education institutions in Mainland China. By encouraging group interactions, FGDs will help explore how students understand the topic of death, what cultural or social barriers exist, and how they perceive the relevance of death education to their personal and professional development.

3.7.1.2.3 Instrument Structure and Design Rationale

The student focus group interview uses group interaction discussions to capture students' cognition, needs, concerns, and suggestions regarding death education, closely echoing research objectives and questions. The Instrument Structure and design framework is as follows:

(1) Section 1: Understanding and Perceptions of Death Education (Corresponding to RO1, RO2, RQ1-3)

Core Framework: Identify educational gaps from students' perspective through their understanding of death education and its disciplinary relevance.

Question Design Logic:Reveal students' cognition of death education as "what it is, whether it is needed, and how it is useful" through concept definition (Question 1), academic experiences (sub-question in Question 1), and personal/professional relevance (Question 2). Corresponds to RQ1 (students' knowledge gaps), RQ2 (students' educational needs), and RQ3 (perceived importance). Focus on specific topics like "grief processing" and "end-of-life care" (sub-question in Question 1) to provide a basis for subsequent curriculum content design.

(2) Section 2: Cultural Perspectives on Death Education (Corresponding to RO2, RO3, RQ4, RQ6)

Core Framework: Analyze the impact of cultural taboos on students' classroom participation and capture interdisciplinary attitudinal differences.

Question Design Logic:Systematically present the role of cultural sensitivity in curriculum acceptance through personal feelings (Question 3), macro-influence of cultural beliefs (sub-question in Question 3), and group interaction attitudes (Question 4). Corresponds to RQ4 (influence of cultural attitudes) and RQ6 (interdisciplinary differences). Reveal the influence of group norms on individual attitudes through "peers' reactions" (sub-question in Question 4), providing micro-level data for cultural adaptation strategies.

(3) Section 3: Perceived Benefits and Challenges of Death Education (Corresponding to RO2, RO3, RQ3, RQ5)

Core Framework: Sort out students' perceived curriculum value and implementation barriers, balancing pros and cons.

Question Design Logic: Form a "value-challenge" comparison through personal/professional benefits (Question 5) and cultural/institutional/personal barriers (Question 6), corresponding to RQ3 (personal/professional value) and RQ5 (types of

barriers). Highlight "emotional resilience cultivation" (sub-question in Question 5) and "overcoming personal discomfort" (sub-question in Question 6), echoing RO2 (professional preparation) and RO3 (implementation barriers).

(4) Section 4: Suggestions for Implementing and Structuring Death Education (Corresponding to RO5, RO6, RQ9-12)

Core Framework: Collect students' specific expectations for curriculum form, teaching methods, and institutional support to ensure curriculum relevance.

Question Design Logic:Create a complete list of implementation suggestions, from curriculum positioning (elective/mandatory, Question 7) to content design (sub-question in Question 7), teaching methods (Question 8), and institutional support (Question 9). Corresponds to RQ9 (content/method design), RQ10 (balance between theory and practice), RQ11 (curriculum form preferences), and RQ12 (institutional support needs). Emphasize "experiential learning" (sub-question in Question 8) and "interdisciplinary integration" (Question 8), reflecting students' demand for practice-oriented curricula.

(5) Section 5: Conclusion and Reflections (Corresponding to RO2, RO6, RQ3, RQ5, RQ12)

Core Framework: Integrate students' overall expectations for curriculum impact and improvement directions, strengthening student-centric strategy suggestions.

Question Design Logic:Extract students' comprehensive cognition of death education through educational experience impact (Question 10), key considerations (sub-question in Question 10), and open suggestions (Question 11). Corresponds to RQ3 (overall impact expectations), RQ5 (students' perspective on barriers), and RQ12 (institutional support needs). Highlight "culturally sensitive design" (sub-question in Question 10) to provide student-demand input for RO5 (framework design).

Summary: Centering on the dual identities of "education recipients + future professionals," it focuses on subjective need excavation and cultural-psychological adaptation to ensure curriculum relevance and acceptability.

Both outlines（Faculty Members and Administrators Outline&Student Outline）align with RO/RQ through cross-correspondence, forming a complete logic chain of "need

diagnosis-barrier analysis-strategy construction" to jointly support the design of a "culturally sensitive and practice-oriented" death education framework.

(A detailed list of focus group discussion questions is included in Appendix 2.)

3.7.1.2.4 Advantages of Focus Group Discussions for This Study

Rich Data: FGDs provide rich, detailed data, capturing the depth and complexity of participants' opinions and experiences. This is important for understanding the multifaceted nature of death education.

Group Dynamics: The interaction between participants can lead to the emergence of new ideas and insights that may not have been uncovered in individual interviews.

Cultural Sensitivity: FGDs can allow for the collective discussion of culturally sensitive issues, enabling participants to express their views within a group context, which may be more comfortable for them than sharing individually.

Flexibility: The open-ended nature of focus group questions allows for the exploration of unexpected topics and the adaptation of questions based on the flow of the discussion.

3.7.1.2.5 Challenges and Considerations

Group Dynamics: The group dynamic could lead to dominant participants overshadowing quieter individuals. The facilitator must ensure that all participants have the opportunity to speak.

Sensitive Topic: Since the topic of death is sensitive, some participants may be hesitant to share personal feelings or experiences. The facilitator must create a safe, respectful environment where participants feel comfortable discussing this sensitive subject.

Language Barriers: As Mandarin is the primary language, ensuring effective communication in the group may require the use of appropriate language or dialects, especially in areas with regional differences.

3.7.1.2.6 Conclusion

Focus group discussions will be a vital data collection method for this study. They will provide valuable insights into the collective perceptions, attitudes, and cultural considerations surrounding death education in Mainland China's higher education institutions. By exploring students' views through group interactions, this method will uncover barriers and opportunities for implementing death education, helping to inform a culturally appropriate and effective educational framework.

3.7.1.3 Post-Experiment Interview Guide

3.7.1.3.1 Instrument Description

The interview protocol features a clear design logic and a well-structured framework, enabling the systematic collection of participant feedback across multiple dimensions—including knowledge, skills, emotional attitudes, and behavioral intentions—to comprehensively evaluate the effectiveness of the death education course and provide an empirical basis for future 3.7.1.3.1 curriculum improvements.

3.7.1.3.2 Instrument Design Rationale

Its design is grounded in the principle of learner-centered evaluation and draws on the "Reaction-Learning-Behavior-Results" framework (Kirkpatrick & Kirkpatrick, 2016), while also closely integrating the distinctive nature of death education. The reaction level examines immediate satisfaction with course content, teaching methods, and instructor performance; the learning level focuses on actual gains and transformations in knowledge, skills, and attitudes; and the behavior and results level assesses the long-term impact of the course through applied competencies and willingness to recommend the course. This structure closely aligns with Research Objective 7, and specifically serves to empirically address Research Questions 13 and 14: Section 3 ("Emotional Experience"), by tracking changes in students' emotions, emotional challenges, and shifting perspectives on death, directly evaluates how the course influences students' psychological well-being and ability to cope with death-related topics (RQ13); Section 4 ("Personal Growth and Gains"), along with questions regarding content relevance in Section 1, thoroughly investigates whether and how the course enhances students' understanding of death-related concepts across different cultural contexts (cultural competence), and whether they feel better prepared to enter professions that require engagement with end-of-life care, grief support,

and related issues (professional preparedness) (RQ14). Therefore, this protocol is not merely a tool for collecting feedback; it serves as a research instrument capable of systematically examining the comprehensive outcomes of death education courses in terms of psychological adjustment, cultural awareness, and practical competence.A detailed list of focus group discussion questions is included in Appendix 7.

3.7.2 Quantitative Research Instruments

3.7.2.1 Structure of the Questionnaire

The structured questionnaire consisted of seven sections. Sections 1 to 6 comprised close-ended items designed for quantitative analysis, including Likert-scale and categorical response formats. These sections measured the following constructs: demographic characteristics (Section 1), perceived importance of death education (Section 2), attitudes toward the inclusion of death education (Section 3), barriers to implementing death education (Section 4), knowledge of death education and related topics (Section 5), and psychological and professional benefits of death education (Section 6).

Section 7 contained open-ended questions aimed at gathering supplementary qualitative insights regarding participants' perspectives, suggestions, and implementation considerations. Responses from this section were analyzed using thematic analysis to complement the quantitative findings.

3.7.2.2 Structured Questionnaire Survey for Faculty and Students

3.7.2.2.1 Instrument Description

This study utilizes a structured questionnaire survey to collect quantitative data on the knowledge, attitudes, perceptions, and experiences of both students and faculty regarding death education. The questionnaire includes closed-ended and open-ended questions to comprehensively understand the perspectives of different groups.

3.7.2.2.2 Instrument Structure and Design Rationale

The questionnaire is divided into seven sections:

Section 1: Demographic Information (collecting basic information such as participants' age, gender, academic discipline, and current role).

Section 2: Perceived Importance of Death Education (assessing participants' subjective views on the importance of death education).

Section 3: Attitudes toward the inclusion of death education (evaluating participants' overall attitudes towards the introduction of death education in university curricula).

Section 4: Barriers to implementing death education (assessing participants' perceptions of cultural, institutional, and other barriers to the implementation of death education).

Section 5: Knowledge of Death Education and Related Topics (assessing participants' level of knowledge on death education and related topics such as grief and end-of-life care).

Section 6: Psychological and Professional Benefits of Death Education (assessing participants' views on the potential benefits of death education for psychological and professional development).

Section 7: Open-Ended Questions (eliciting participants' views and suggestions on death education, collecting supplementary qualitative data).

The summary of the structured questionnaire for faculty and students is shown in Table 3-8. A detailed list of survey questions is included in Appendix 3.

Table 3- 8:
Summary of the Structured Questionnaire for Faculty and Students

Section	Measured Construct	Related Research Objective (RO)	Related Research Question (RQ)
Section 1	Demographic Information	_	_
Section 2	Perceived Importance of Death Education	RO 2	RQ 3
Section 3	Attitudes toward the Inclusion of Death Education	RO 2, RO 3	RQ 3, RQ 5
Section 4	Barriers to Implementing Death Education	RO 3	RQ 5, RQ 6

Section 5	Knowledge Death Education	RO 1	RQ 1
Section 6	Psychological and Professional Benefits of Death Education	RO 7	RQ 14
Section 7	Stakeholder Suggestions and Implementation strategies	RO 5, RO 6	RQ 9 - 12

The constructs presented in Table 3.8 are consistently aligned with the research objectives and research questions outlined in Chapter 1. Terminology used in the questionnaire sections corresponds directly to the variables tested in Chapter 4 to ensure conceptual and analytical coherence.

3.7.2.2.3 Advantages of Employing a Structured Questionnaire Survey in This Study

Broad Coverage: Structured questionnaire surveys can efficiently collect data from a large number of participants, providing a broader understanding of faculty and students' knowledge, attitudes, and perceptions towards death education. This helps in identifying prevalent trends and patterns, which informs targeted intervention measures.

Data Quantification: The questionnaire primarily uses closed-ended questions, facilitating the quantification of collected data and statistical analysis. This quantitative analysis enables researchers to objectively assess the cognitive levels, perceived importance, and attitudinal differences across various groups regarding death education.

Anonymity and Objectivity: Questionnaire surveys are often administered anonymously, reducing participants' concerns when answering sensitive questions, resulting in more truthful and objective data. This is essential when discussing sensitive topics like death.

Standardization: The predetermined questions and options in the structured questionnaire ensure that all participants answer within the same framework, improving data consistency and comparability. This facilitates precise group comparisons and trend analysis.

Efficiency and Speed: Questionnaire surveys can be distributed to many participants simultaneously, allowing for the collection of a large amount of data in a relatively short period. This improves the efficiency of the research and saves time and resources.

3.7.2.2.4 Challenges and Considerations

Limited Depth: Structured questionnaires primarily collect quantitative data, limiting in-depth exploration of participants' attitudes, perceptions, and experiences. For complex issues, questionnaires may not capture subtle nuances and individual variations.

Response Bias: Participants may give untruthful answers due to social desirability, self-protection, or other reasons, especially regarding sensitive topics. Additionally, the options in closed-ended questions might limit participants' ability to express their actual thoughts.

Lack of Flexibility: The questions and options in a structured questionnaire are predetermined, preventing researchers from flexibly adjusting or exploring new directions based on participants' responses. This limits the explorative and discovery nature of the research.

Insufficient Cultural Sensitivity: Structured questionnaires may not fully capture the unique understandings and perspectives on death across different cultural backgrounds. Questionnaire design must consider cultural differences to ensure the questions are understood and responded to with cultural appropriateness.

3.7.2.2.5 Conclusion

Structured questionnaire surveys are a crucial method for collecting quantitative data in this study. They will provide us with broad, objective data on faculty and students' knowledge, attitudes, and perceptions regarding death education. Although structured questionnaire surveys have limitations regarding in-depth understanding and flexibility, their advantages in terms of broad coverage, quantitative analysis, and efficiency make them an important tool for investigating the current status of death education and evaluating potential intervention effects. By carefully designing the questionnaire and combining it with other research methods (such as semi-structured interviews), this study can gain a more comprehensive understanding of the complexity of death education, thereby informing the development of effective, culturally appropriate curricula. This approach is particularly suitable for understanding generalized attitudes and trends, providing valuable context for subsequent in-depth research.

3.7.2.3 Pre- and Post-Test Questionnaires for Death Education Course

3.7.2.3.1 Instrument Description

This section aims to assess changes in the psychological and emotional responses and professional attitudes toward death in higher education students participating in the death education curriculum. The questionnaire includes pre- and post-tests to compare changes in students before and after completing the course. The core components are the following three questionnaires: the Death Attitude Profile-Revised (DAP-R), the Coping with Death Scale (CDS), and the Frommelt attitudes toward care of the dying scale form B (FATCOD-B).

3.7.2.3.2 Instrument Structure and Design Rationale

For higher education students participating in the death education course, this study employs the following three separate pre- and post-test questionnaires to assess changes in students at different levels before and after taking the curriculum:

(1) Death Attitude Profile-Revised (DAP-R) Questionnaire

Instrument Description: This questionnaire aims to assess changes in the attitudes toward death of students participating in the death education course before and after the course.The DAP-R has been widely validated across diverse cultural contexts and has demonstrated satisfactory reliability and construct validity. In the present study, the instrument was used for both baseline (pre-intervention) and post-intervention assessment to evaluate changes in students' attitudes toward death following participation in the structured death education curriculum.

Instrument Structure: The Death Attitude Profile-Revised (DAP-R) developed by Wong(1994) was adopted. The scale was translated into Chinese by Liao (2000) and cross-culturally adjusted by Tang (2013) before being used in this study. The Chinese version of the DAP-R scale has 32 items, 32 items measuring five dimensions of attitudes toward death: Fear of Death (7 items), Death Avoidance (5 items), Neutral Acceptance (5 items), Approach Acceptance (10 items), and Escape Acceptance (5 items). Responses are rated on a Likert-type scale ranging from1 = strongly disagree to 5 = strongly agree.A detailed list of questions is included in Appendix 4.

Purpose: To assess the impact of the course on students' attitudes towards death, including fear of death, death avoidance, natural acceptance, approach acceptance, and escape acceptance, thereby understanding the role of the course in changing students' subjective perceptions of death.

(2) Coping with Death Scale (CDS)

Instrument Description: In this study, the CDS was administered pre- and post-intervention to assess changes in death coping competence. Its dimensional structure and internal consistency were confirmed via factor analysis and reliability testing.

Instrument Structure: This study uses the Chinese version of the Coping with Death Scale (CDS), translated by Zheng et al. (2021) . The Chinese version of the CDS consists of 28 items, divided into six dimensions: the ability to communicate with others about dying or death, the ability to accept one's own death, the ability to handle post-death arrangements, coping ability in the face of death, the ability to perceive and express one's own death, and life reflection ability. A seven-point Likert scale is used. A detailed list of questions is included in Appendix 5.

Purpose: The CDS designed to assess individuals' perceived competence in coping with death-related situations. The scale evaluates respondents' confidence in communicating about death, managing emotional responses, handling practical arrangements, and engaging in reflective understanding of mortality.

(3) Frommelt Attitude Toward Care of the Dying Scale form B (FATCOD-B)

Instrument Description: This questionnaire aims to assess the changes in the attitudes toward end-of-life care of students participating in the death education course before and after the course.

Instrument Structure: This study uses the Chinese version of the FATCOD-B scale, which was revised by Wang (2016) based on the *Frommelt Attitude Toward Care of the Dying* (FATCOD) developed by Frommelt (1991). This scale aims to assess the attitudes of healthcare professionals (including nurses and medical students) toward end-of-life care. The Chinese version of the FATCOD-B scale includes 30 items. A five-point Likert scale is used ranging from "strongly disagree" (1 point) to "strongly agree" (5

points). Total scores range from 30 to 150, with higher scores indicating more positive attitudes toward caring for dying patients. This scale underwent translation, back-translation, and cultural adjustment processes to form the final Chinese version. A detailed list of questions is included in Appendix 6.

Purpose: To assess the impact of the course on students' attitudes towards end-of-life care, including their caregiving attitudes towards terminally ill patients and their patient-centered care philosophy.

(4) Interview Outline for Death Education Curriculum Experiences and Feedback

This interview aims to understand the emotional experiences of students participating in the death education course and to collect their overall feedback on the course. The interview will be semi-structured and will revolve around three core aspects:

Emotional Experiences: This part explores students' emotional responses when encountering death-related topics, including their most commonly experienced emotions, specific feelings during class discussions (e.g., sadness, anxiety, calmness), and whether their emotional experiences changed throughout the course. Understanding these emotional responses allows for assessing the course content and format's impact on students' affective domain.

Curriculum Feedback: This part focuses on collecting students' evaluations of various aspects of the course, including the overall content arrangement, teaching methods, interactive activities, extracurricular activities (if any), course length, and learning resources. Students will express their satisfaction with these aspects and share their biggest gains from this course. This feedback section helps to understand the strengths and weaknesses of the course.

Suggestions for Improvement: This part encourages students to offer suggestions and improvement ideas for the course to further refine future course designs. By collecting student feedback, the course can be better tailored to meet students' needs and improve the quality of instruction. A detailed list of questions is included in Appendix 7.

Table 3- 9:
Summary of Pre- and Post-Test Research Instruments

Core Theme	Design Rationale	Corresponding Research Aim/Question
DAP-R	Measure attitude change, evaluate course effectiveness.	RO 7 /RQ 13
CDS	Assess coping ability change, evaluate enhancement effect.	RO 7 /RQ 13, 14
FATCOD-B	Measure end-of-life care attitude change, evaluate attitudinal impact.	RO 7 /RQ 14
Curriculum Experience and Feedback Interview	Collect course feedback, evaluate effectiveness to improve the course.	RO7, 5 / RQ 9,13,14

3.7.2.3.3 Advantages of Pre- and Post-Test Questionnaires in This study

Multi-Dimensional Assessment: By utilizing three separate questionnaires – the Death Attitude Profile-Revised (DAP-R), the Coping with Death Scale (CDS), and the Frommelt attitudes toward care of the dying scale form B (FATCOD-B) – the course's impact on students can be assessed across multiple dimensions, including cognitive, behavioral, and emotional aspects. This allows researchers to comprehensively understand the combined effects of the course on students' attitudes towards death, coping abilities, and attitudes towards end-of-life care.

Quantifiable Changes: The use of a pre- and post-test design allows for the quantification of changes in students' scores on each scale before and after participating in the course. This quantitative data provides a direct indication of the course's effectiveness and provides an objective basis for research conclusions.

Targeted Assessment: The three scales focus specifically on attitudes towards death, coping with death, and attitudes towards end-of-life care, closely aligning with the core themes of this study. This targeted assessment helps researchers precisely analyze the course's impact on different aspects and provides clear direction for course improvement.

Course Experience Feedback: The semi-structured interviews offer an in-depth exploration of students' emotional experiences and feedback on the course, providing an essential supplement to the quantitative data and enabling a more complete understanding of the reasons behind the quantitative results. This helps researchers comprehensively understand the strengths and weaknesses of the course and provides valuable insights for course improvement.

Localized Scales: The adoption of localized versions of the scales, such as the Chinese versions of the DAP-R, CDS, and FATCOD-B, enhances the study's cultural appropriateness and the accuracy of the results, ensuring the research is more aligned with the Chinese cultural context.

3.7.2.3.4 Challenges and Considerations

Questionnaire Response Bias: Participants may give untruthful responses in questionnaires due to social desirability or other factors, leading to data bias. For example, students might overestimate their acceptance of death or underestimate their anxiety about coping with death.

Interview Subjectivity: The conclusions drawn from semi-structured interviews may be influenced by the interviewer's personal biases. To mitigate this risk, interviewer training and rigorous analysis methods are necessary.

Difficulty in Attribution: The effects of the course are influenced by multiple factors, making it difficult to attribute the observed changes solely to the death education course. For example, students' personal experiences during the course period may also influence the results.

Sample Size Limitations: Due to research resource limitations and participant willingness, the sample size may limit the generalizability of the research conclusions. Careful interpretation of research results is necessary.

Effectiveness of Course Feedback: Student feedback may be influenced by personal preferences, subjective experiences, and expressive abilities, and may not fully reflect the course's strengths and weaknesses. It is necessary to carefully analyze and synthesize feedback information.

3.7.2.3.5 Conclusion

The pre- and post-test questionnaires and the course experience and feedback interviews are essential tools in this study for evaluating the effectiveness of the death education course. Through the combination of quantitative and qualitative data, the impact of the course on students' attitudes towards death, coping abilities, and attitudes towards end-of-life care can be more comprehensively and thoroughly understood. Despite some

potential challenges such as questionnaire response bias and interview subjectivity, by carefully designing the research methods, strictly controlling the research process, and combining quantitative and qualitative analyses, this study can effectively evaluate the course's effectiveness, providing a basis for developing more effective death education courses. This mixed-methods approach can help us understand the impact of the course on students from multiple perspectives and provide valuable insights for improving course design and teaching methods.

3.7.3 Translation and Back -Translation Procedure

As the Death Attitude Profile-Revised (DAP-R), Coping with Death Scale (CDS), and Frommelt Attitude Toward Care of the Dying Scale Form B (FATCOD-B) were originally developed in English, a rigorous translation and back-translation procedure was employed to ensure linguistic and conceptual equivalence in the Mainland Chinese context.

First, the original English instruments were translated into Chinese by two independent bilingual translators with expertise in psychology and educational research. The translated versions were then reviewed and consolidated into a preliminary Chinese draft through discussion and reconciliation of discrepancies.

Subsequently, a separate bilingual expert, who was blinded to the original instruments, performed back-translation from Chinese into English. The back-translated version was compared with the original instruments to identify inconsistencies in wording, meaning, and cultural nuance. Particular attention was given to culturally sensitive constructs such as fate, destiny, and death acceptance to ensure conceptual alignment with Chinese sociocultural interpretations.

Any discrepancies identified during the comparison process were discussed among the translators and research team until semantic equivalence was achieved. The finalized Chinese version was pilot-tested with a small group of participants to ensure clarity and comprehensibility prior to full-scale data collection.

This systematic back-translation process enhances content validity and ensures cross-cultural measurement integrity.

3.8 Reliability and Validity of Instruments

Many researchers, such as Hoque et al. (2018) and Shkeer and Awang (2019), asserted that if a researcher adapts instruments from a prior study and modifies them to meet current research needs, the revised instruments must go through both pre-testing and pilot testing stages before they can be applied in a field study. According to Sekaran and Bougie (2016), pre-testing requires using a small number of respondents to assess the feasibility of the questions and their interpretation. The additional information gathered from this small sample of respondents aids in reducing bias and correcting weaknesses within the instruments.

Similarly, the instruments used in this study include both those created specifically for this research and those adapted from previous studies to suit the context of mainland China. Therefore, it is critical to conduct pre-testing of these instruments to verify whether respondents understand the questions and to ensure there are no issues with the language of measurement.

3.8.1 Trustworthiness of Qualitative Research Instruments

3.8.1.1 Dependability of the Interview Guides

This study employed semi-structured interview guides (for faculty and administrators) and focus group discussion guides (for students) as the primary qualitative data collection instruments. These tools were designed to explore in depth the perceptions, attitudes, and experiences of faculty, administrators, and students regarding the integration of death education into higher education curricula in mainland China. To ensure the reliability and validity of these instruments, the following measures were implemented.

3.8.1.1.1 Pilot Testing

Prior to commencing formal data collection, pilot testing of the semi-structured interview guides was conducted. Two faculty members and one administrator participated in the pilot study, testing the interview questions. During the pilot test, the following aspects were assessed:

Clarity and Comprehensibility of Questions: The study ensured all questions were phrased using concise and easily understood language, avoiding ambiguity or vagueness.

Stimulation of In-depth Reflection: The researchers observed whether the questions elicited thoughtful responses and valuable insights from participants.

Comprehensive Coverage of Research Areas: The questions were reviewed to ensure comprehensive coverage of all research areas, including attitudes toward death education, cultural barriers, institutional challenges, and the implications for students' career development.

Smoothness of Interview Flow: The overall flow of the interview was evaluated, including the sequence and transition of questions, and the allocation of interview time.

Based on feedback from pilot test participants, minor adjustments were made to the interview guides. For example, question wording was made more specific, and the order of some questions was adjusted to ensure a smooth interview process and the collection of high-quality data.

3.8.1.1.2 Inter-Rater Reliability

To ensure the rigor of interview data analysis and the reliability of findings in this study, we conducted a rigorous inter-rater reliability check of the coding process for three interview transcripts. This step utilized NVivo11PLUS qualitative data analysis software to facilitate multi-level coding. Prior to coding, coders received detailed training and used a consistent coding manual, clearly defining the definitions and criteria for each coding category. Upon completion of coding, we calculated the consistency between the two coders using Cohen's Kappa coefficient.

Coding Process: Coding was based on the interview guide's question categories and transcript content. Two coders performed first-level coding on all transcripts, developing a framework that included "Attitudes Toward Death Education", "Student's Death Education Curriculum Needs", "Barriers to Implement Death Education Curriculum", and "Ideas for Curriculum Framework Design". They then conducted second-level coding under each category to identify specific concepts and themes. This

multi-level strategy aimed to analyze participants' perspectives, attitudes, and experiences related to death education.

Coding Consistency Check: To examine the degree of coding consistency, we used the Cohen's Kappa coefficient. Cohen's Kappa is a commonly used statistical measure for evaluating the consistency between two coders when categorizing or coding the same content. It effectively excludes the influence of chance agreement. Cohen's Kappa values typically range from -1 to +1, where +1 indicates perfect agreement, 0 indicates agreement no better than chance, and -1 indicates perfect disagreement. We used NVivo software to compare the coding results of coder A and coder B and calculated the consistency Kappa values for each coding category. The results are shown in Table 3-10.

Table 3-10:
Analysis of Coding Consistency for Interview Data Categories

Coding Category	Cohen's Kappa Value
Attitudes Toward Death Education	0.9283
Student's Death Education Curriculum Needs	0.9923
Barriers to Implementation Death Education Curriculum	0.9405
Ideas for Curriculum Framework Design and Arrangements	0.9869

As shown in Table 3-29, all coding categories had Cohen's Kappa values above 0.92, indicating that the two coders achieved a high degree of agreement in all major coding categories. According to Landis and Koch (1977), a Kappa value between 0.81 and 1 is considered to represent "almost perfect" agreement. The results of coding consistency in this study indicate that coders A and B had extremely high consistency in their understanding of interview data and coding standards, which laid a solid foundation for subsequent data analysis. To ensure the rigor of the study, the two coders discussed and reviewed the few inconsistent coding items and ultimately reached a consensus, further enhancing the accuracy and reliability of the coding results.

3.8.1.1.3 Audit Trail

We established a detailed audit trail that documented all stages of the research: The design and revision process of the interview guides; The participant recruitment process; The transcription and anonymization process of interview recordings; The data coding

scheme and coding process; The steps and methods of data analysis; and The interpretation of the study results and the formation of conclusions. This detailed audit trail ensured transparency and traceability of the research process, providing other researchers with the possibility of replicating the study.

3.8.1.2 Dependability of the Focus Group Discussion Guides

3.8.1.2.1 Pilot Testing

Before the formal focus group discussions, we piloted the discussion guide. We invited five students from different disciplines for the pilot test to evaluate its suitability. During the pilot, we focused on:

Clarity and Comprehensibility of Questions: Ensuring that the questions could be understood by students and would elicit discussion.

Ability of Questions to Elicit Students' Personal Perspectives and Experiences： Observing whether students actively participated in the discussions and were able to share their views and opinions.

Smoothness of the Discussion Flow: Evaluating the overall flow of the discussion, including the order of the questions, the facilitation approach, and the allocation of discussion time.

Comprehensive Coverage of Research Areas: Confirming that the questions covered all the research areas of interest, including understanding of death education, cultural attitudes, potential benefits, challenges, and implementation suggestions.

Based on the feedback from students in the pilot test, we made minor adjustments to the discussion guide. For example, we made the wording of the questions more relevant to students' practical experiences and adjusted the order of some questions to ensure the effectiveness of the discussion.

3.8.1.2.2 Inter-Rater Reliability

Similar to the interview guides, a dual-coder approach was employed to analyze selected portions of the focus group discussion transcripts. Both coders followed a standardized coding manual and independently applied the coding scheme to the

qualitative data. To assess inter-coder reliability, Cohen's Kappa coefficient was calculated for each coding category. As summarized in Table 3-11, all categories achieved Kappa values exceeding 0.7, indicating a high level of agreement between coders and affirming the reliability of the coding process.

Table 3-11:
Analysis of Coding Consistency for Focus Group Data Categories

Coding Category	Cohen's Kappa Value
Attitudes Toward Death Education	0.852
Student's Death Education Curriculum Needs	0.903
Barriers to Implementation Death Education Curriculum	0.789
Ideas for Curriculum Framework Design and Arrangements	0.895

3.8.1.2.3 Audit Trail

We also established a detailed audit trail for the focus group discussion process, which included records of: The design and revision process of the discussion guides; The participant recruitment process; The transcription and anonymization process of discussion recordings; The data coding scheme and coding process; The steps and methods of data analysis; The interpretation of study results and the formation of conclusions.

3.8.1.3 Dependability of Post-Experiment Interview

3.8.1.3.1 Dependability of Interview Guides

As with the previously described interviews, to ensure the dependability of the interview data, we implemented the following measures: First, prior to the formal interviews, we pilot-tested the interview protocol with two students to assess question clarity, relevance, and sensitivity, making adjustments accordingly. Second, experienced researchers received training on the interview protocol, techniques, ethical considerations, and standardized procedures to minimize researcher bias and ensure interview consistency. Finally, we maintained a detailed audit trail documenting the interview protocol's design, revisions, participant recruitment, the interview process, audio transcription, and data analysis to ensure research traceability.

3.8.1.3.2 Inter-Rater Reliability

To ensure coding reliability, two independent coders analyzed 20% of the interview transcripts. Cohen's Kappa was employed to assess inter-coder agreement, with a value above 0.70 indicating acceptable reliability. As presented in Table 3-12, all first-level coding categories achieved Kappa values exceeding 0.80, demonstrating strong consistency and high coding reliability. Regular discussions were held between coders to resolve discrepancies and maintain coding standards.

Table 3-12:
Analysis of Coding Consistency for Post-Experiment Interview Data Categories

Coding Category	Cohen's Kappa Value
Emotional Experience	0.885
Curriculum Feedback	0.842
Suggestions for Improvement	0.910

3.8.1.4 Strategies for Ensuring Trustworthiness in Qualitative Methods

Triangulation: To ensure the trustworthiness and comprehensiveness of the qualitative findings, this study employed multiple forms of triangulation (Donkoh & Mensah, 2023), which enhances the accuracy and credibility of conclusions through cross-validation from diverse data sources. Specifically, data source triangulation was implemented using three types of data: semi-structured interviews with faculty and administrators provided in-depth insights into their perspectives, experiences, and challenges regarding the integration of death education; focus group discussions with students captured their understandings, cultural attitudes, and suggestions; and questionnaires administered to all stakeholders yielded quantitative data that helped verify emergent themes from qualitative analyses and extended the investigation to a broader population.

Member Checking: Member checking is a key strategy for enhancing the validity of our research (Motulsky, 2021). Following the interviews and focus group discussions, we provided participants with the transcripts of their interviews and discussions, along with preliminary analysis results. We requested that they verify the accuracy of the transcripts and provide feedback on the analysis. Based on participants' feedback, we made necessary revisions and adjustments to the transcripts and the analysis results.

Reflexivity: Reflexivity is an important step for ensuring transparency and reducing researcher bias (Palaganas et al., 2017). Throughout the research process, the researchers engaged in reflexivity by documenting their personal subjectivities, values, and experiences, and examining how these might influence data collection and analysis. We maintain transparency by clarifying the researchers' personal positions in the research report to enable readers to understand their potential impact on the findings.

Rich Descriptions: Rich descriptions enable readers to better understand the context of the research and the viewpoints of the participants (Huang,1997). In our research report, we use direct quotations from participants wherever possible, along with detailed descriptions of the context within which data were collected. By providing these rich and vivid descriptions, we enhance the authenticity and credibility of the research

Transferability: Transferability refers to the extent to which the research findings can be applied to other contexts (Drisko, 2025). To enable readers to determine the applicability of our findings in different settings, we provide detailed descriptions of the participants' characteristics, the research context, data collection methods, and the analysis process in our research report. By providing this comprehensive information, we support readers in evaluating the transferability of our research results.

3.8.2 Reliability and Validity Testing of Quantitative Research Instruments

3.8.2.1 Reliability and Validity Testing of Structured Questionnaire Survey for Faculty and Students

3.8.2.1.1 Pilot Study

Prior to the administration of the full-scale survey, a pilot study was carried out with a small sample in order to ascertain the clarity and reliability of the research instrument.

3.8.2.1.2 Basic Information of Participants

As shown in the table below, the majority of the sample fell within the "18-24 years old" age range, accounting for 59.17% of the participants. The "25-34 years old" age group represented 32.87% of the sample. In terms of gender, the majority of the sample was "female," accounting for 53.98% of participants, while the male sample comprised 46.02%.

Regarding academic discipline, the majority of the sample was in “Education,” with 115 participants, representing 39.79%. The proportion of “students” was 75.43%.

Table 3- 13:
Results of the Frequency Analysis of Participant Information

Category	Option	Frequency	Percentage (%)	Cumulative Percentage (%)
Age Group	18-24 years old	171	59.170	59.170
	25-34 years old	95	32.872	92.042
	35-44 years old	19	6.574	98.616
	45-54 years old	4	1.384	100.000
Gender	Male	133	46.021	46.021
	Female	156	53.979	100.000
Academic Discipline	Humanities	9	3.114	3.114
	Social Sciences	12	4.152	7.266
	Natural Sciences	45	15.571	22.837
	Medical/Health	52	17.993	40.830
	Engineering	46	15.917	56.747
	Education	115	39.792	96.540
	Other	10	3.460	100.000
Current Role	Student	218	75.433	75.433
	Faculty	40	13.841	89.273
	Administrative Staff	23	7.958	97.232
	Other	8	2.768	100.000
Total		289	100.0	100.0

Note: The category “Other” refers to university personnel who do not fall strictly within academic faculty roles, including student affairs officers, administrative staff, academic advisors, and psychological counselors who are involved in student development and curriculum support.

3.8.2.1.3 Reliability Analysis

Reliability analysis is conducted to ensure the validity of the model fit evaluation and hypothesis testing. In this study, Cronbach’s alpha (α) coefficient is used to examine the internal consistency of the survey questionnaire’s research variables across their respective measurement items. Hair, Anderson, Tatham, and Black (2010) suggest that for a variable to exhibit good reliability, the Cronbach’s alpha coefficient must be greater than

0.7. Generally, improving reliability in a construct often involves reducing the number of variables, according to two conditions: An item should be removed if the corrected item-total correlation (CITC) is below 0.5; An item should be removed if its removal results in an increased Cronbach's alpha coefficient. This study uses these two criteria as the basis for purifying items. The specific Cronbach's alpha coefficients are shown in the table 3-14.

Table 3- 14:
Cronbach's Alpha Reliability Analysis

Variable	Item	Corrected Item-Total Correlation (CITC)	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Importance of Death Education	Q5	0.804	0.841	0.890
	Q6	0.745	0.864	
	Q7	0.756	0.862	
	Q8	0.737	0.867	
Attitude towards Incorporating Death Education	Q9	0.701	0.778	0.819
	Q10	0.671	0.765	
	Q11	0.730	0.719	
Barriers and Challenges to Implementing Death Education	Q12	0.706	0.854	0.879
	Q13	0.697	0.859	
	Q14	0.729	0.850	
	Q15	0.676	0.862	
	Q16	0.784	0.840	
Knowledge of Death Education and Related Topics	Q17	0.673	0.803	0.839
	Q18	0.701	0.783	
	Q19	0.681	0.794	
	Q20	0.681	0.805	
Psychological and Professional Benefits of Death Education	Q21	0.677	0.798	0.840
	Q22	0.658	0.804	
	Q23	0.690	0.794	
	Q24	0.682	0.793	

As seen in the table above, all Cronbach's alpha coefficient values are greater than 0.7, indicating high reliability of the research data. The "Cronbach's Alpha if Item Deleted" values show that removing any item would not result in a substantial increase in the reliability coefficient, therefore indicating that no items should be deleted. In terms of "CITC values", the CITC values for all analysis items are greater than 0.5, suggesting a good correlation between analysis items, as well as a good level of reliability. To conclude, the reliability coefficient values of the research data are all above 0.7. Overall, this indicates high reliability of the data, making it suitable for further analysis.

3.8.2.1.4 Validity Analysis

Validity analysis is an important part of empirical analysis. Researchers often lack sufficient time or resources to develop new measurement tools; therefore, they often use existing measurement tools, such as questionnaires, to save time and costs. Using existing measurement tools helps researchers to determine if the same tool can be used across studies. Therefore, it is very important to verify whether a measurement tool is being applied and interpreted effectively and accurately for the current study.

For questionnaires, content validity and construct validity are usually used to measure validity. Among these, content validity refers to the suitability and logical consistency of the items with the measured variables (Sireci, 1998). The questionnaire used in this study is based on literature reviews that demonstrate relationships or associations between the variables. Furthermore, the wording and expression of the items were further revised and improved based on the results of the pilot study. Therefore, it can be considered that the scale has the required content validity. The focus of this study is on examining construct validity, which refers to the ability of the items to measure the variables being assessed(Grimm & Widaman, 2012) . In this study, exploratory factor analysis (EFA) was conducted using the collected data to demonstrate the construct validity of the scale.

Generally, two conditions must be met before conducting exploratory factor analysis to determine if factor analysis is feasible (Effendi et al., 2019) : 1. KMO > 0.7; and 2. Bartlett's test of sphericity is significant (Sig. < 0.05).

SPSS 22.0 was used to perform exploratory factor analysis, and the KMO and Bartlett's test results are shown in the table 3-15.

Table 3- 15:
KMO and Bartlett's Test Results

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.932
Bartlett's Test of Sphericity	Approx. Chi-Square	3372.394
	df	190
	Sig.	0.000

Factor analysis is used to condense information. Before doing so, we must first analyze whether the research data is suitable for factor analysis. As can be seen in the table above, the KMO value is 0.932, which is greater than 0.7, meeting the prerequisite

requirement for factor analysis, which means the data can be used for factor analysis research. The data also passed Bartlett's test of sphericity ($p<0.05$), indicating that the research data is suitable for factor analysis.

On the basis that the data is suitable for factor analysis, the specific results of factor extraction and the information content of the extracted factors are shown in Table 3-16.

Table 3- 16:
Total Variance Explained

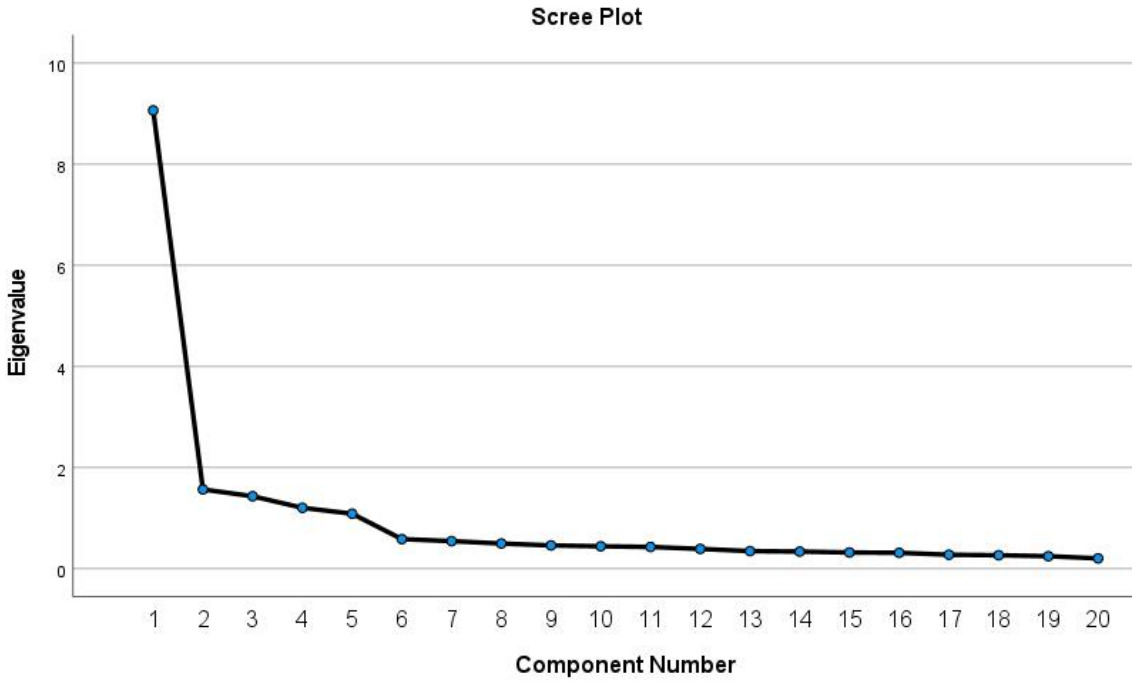
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.065	45.324	45.324	9.065	45.324	45.324	3.504	17.521	17.521
2	1.567	7.833	53.157	1.567	7.833	53.157	3.093	15.466	32.986
3	1.432	7.158	60.315	1.432	7.158	60.315	2.767	13.836	46.822
4	1.203	6.015	66.330	1.203	6.015	66.330	2.710	13.552	60.374
5	1.086	5.431	71.761	1.086	5.431	71.761	2.277	11.387	71.761
6	0.584	2.918	74.679						
7	0.544	2.721	77.401						
8	0.496	2.481	79.882						
9	0.459	2.295	82.177						
10	0.442	2.209	84.387						
11	0.429	2.144	86.531						
12	0.390	1.951	88.482						
13	0.347	1.734	90.216						
14	0.337	1.687	91.903						
15	0.319	1.595	93.498						
16	0.313	1.565	95.063						
17	0.274	1.372	96.436						
18	0.265	1.323	97.759						
19	0.246	1.228	98.986						
20	0.203	1.014	100.000						

Extraction Method: Principal Component Analysis.

This table analyzes factor extraction and the information content of the factors extracted. As can be seen in the table, a total of five factors were extracted using factor analysis, all with eigenvalues greater than 1. The variance explained by the five factors after rotation are 17.521%, 15.466%, 13.836%, 13.552%, and 11.387%, respectively, and the cumulative variance explained after rotation is 71.761%.

To further verify the rationality of extracting five factors, the scree plot of principal factors (used to visually judge the number of extractable factors) is presented in Figure 3-3.

Figure 3- 6:
Scree Plot of Principal Factors



The figure above is the scree plot of principal factors. It visually displays the number of factors to extract and is based on the "Total" column under the "Initial Eigenvalues" section, with eigenvalues arranged in descending order. Essentially, it's a scatter plot of the principal components arranged according to the magnitude of their eigenvalues. As shown in the figure, the change in eigenvalue values after the 5th factor begins to level off, and the eigenvalues are less than 1. Therefore, it is appropriate to extract the first 5 principal factors.

On the basis of confirming the number of extractable factors, the specific distribution of item loadings under each of the five factors is detailed in Table 3-17.

Table 3- 17:
Rotated Component Matrix[a]

Rotated Component Matrix[a]

Dimension	Item	Component					
		1	2	3	4	5	
Importance of Death Education	Q5	0.202	**0.788**	0.241	0.229	0.154	0.796
	Q6	0.189	**0.782**	0.235	0.191	0.077	0.744
	Q7	0.221	**0.789**	0.139	0.153	0.204	0.756

	Q8	0.202	**0.776**	0.096	0.225	0.178	0.735
Attitude towards Incorporating Death Education	Q9	0.272	0.188	0.293	0.153	**0.725**	0.745
	Q10	0.094	0.124	0.140	0.305	**0.797**	0.772
	Q11	0.192	0.240	0.220	0.083	**0.808**	0.803
Barriers and Challenges to Implementing Death Education	Q12	**0.748**	0.211	0.200	0.092	0.171	0.682
	Q13	**0.760**	0.187	0.079	0.140	0.178	0.670
	Q14	**0.716**	0.171	0.235	0.237	0.182	0.687
	Q15	**0.756**	0.161	0.148	0.225	0.005	0.669
	Q16	**0.770**	0.165	0.291	0.178	0.148	0.759
Knowledge of Death Education and Related Topics	Q17	0.122	0.193	0.210	**0.779**	0.129	0.720
	Q18	0.178	0.296	0.189	**0.730**	0.133	0.706
	Q19	0.287	0.094	0.229	**0.724**	0.173	0.697
	Q20	0.270	0.297	0.175	**0.658**	0.194	0.663
Psychological and Professional Benefits of Death Education	Q21	0.220	0.149	**0.712**	0.235	0.187	0.667
	Q22	0.303	0.142	**0.668**	0.180	0.225	0.642
	Q23	0.200	0.285	**0.752**	0.173	0.087	0.724
	Q24	0.147	0.143	**0.763**	0.205	0.220	0.715

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

In this study, the data underwent varimax rotation to facilitate the identification of relationships between factors and individual research items. The table above demonstrates the degree of information extraction from the research items by the extracted factors, as well as the relationships between factors and research items. As shown in the table, all research items exhibit communality values exceeding 0.5, indicating strong associations between the research items and their corresponding factors, and confirming the efficacy of the factors in extracting information. Having established that the factors capture a substantial amount of information from the research items, we proceed to analyze the relationships between the factors and the individual research items. An absolute factor loading coefficient value greater than 0.5 is used as the criterion for a significant relationship between an item and a factor.

Confirmatory Factor Analysis for Factor Validation: Confirmatory factor analysis (CFA) was employed to examine the convergent validity of the internal items for

each variable. The primary purpose of CFA is to evaluate the fit between the actual measurement data and the theoretical framework. According to Sireci & Sukin(2013), validity assessment of scales involves the following conditions:

(1) Requirements for Convergent Validity:

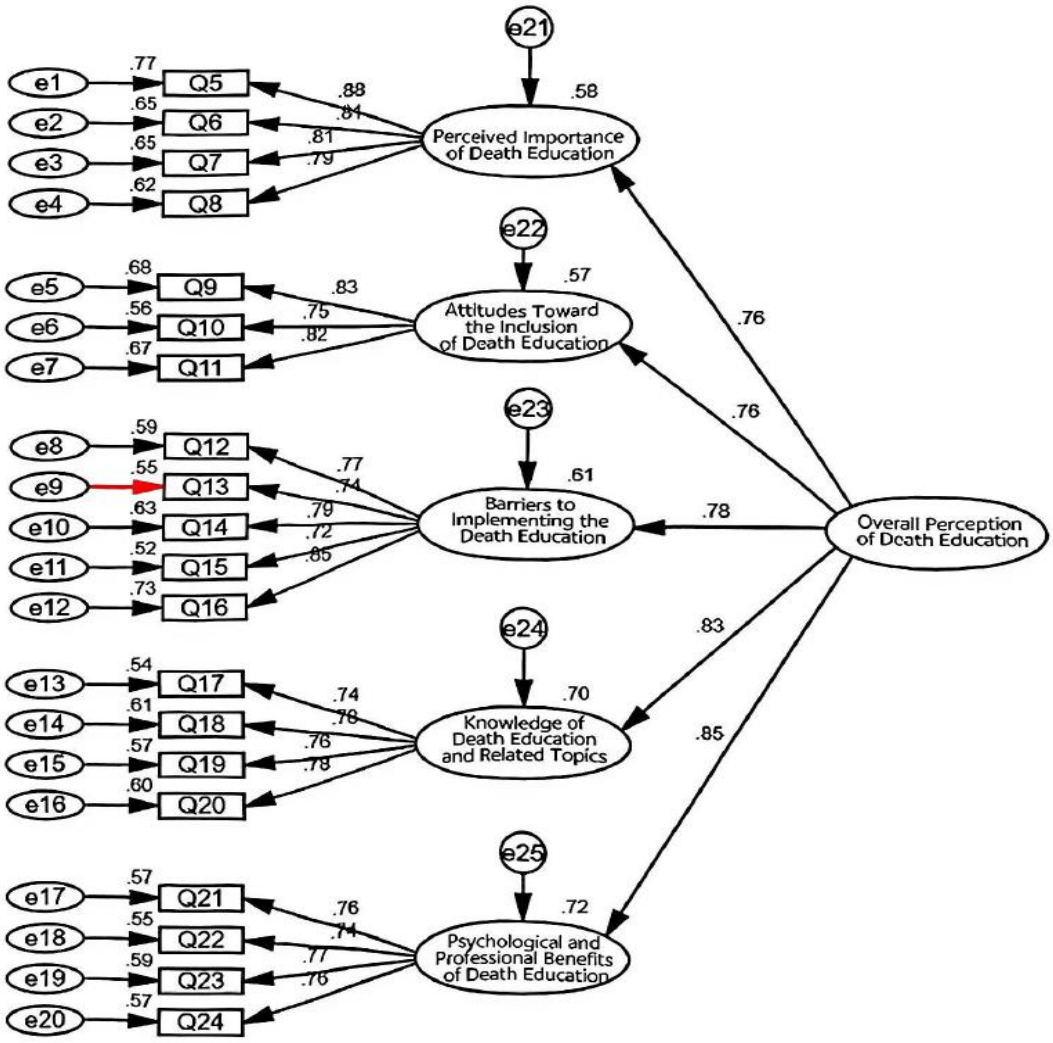
A measurement model is considered to have convergent validity if it meets the following criteria (Hair et al., 2009; Fornell & Larcker, 1981): Factor loadings should be statistically significant, with standardized values greater than 0.7; Composite Reliability (CR) must exceed 0.7, indicating high internal consistency among items measuring the construct; Average Variance Extracted (AVE) should be greater than 0.5, demonstrating that the construct explains a substantial portion of the variance in its measured items.

(2) Overall Model Fit Indices:

When using CFA for validity testing, it is necessary to evaluate the model's fit and to modify the measurement model as needed to improve the fit. Based on the recommendations of Hu and Bentler (1998), the model fit indices primarily chosen are: X^2/df (Chi-square divided by degrees of freedom), GFI (Goodness-of-Fit Index), AGFI (Adjusted Goodness-of-Fit Index), NFI (Normed Fit Index), IFI (Incremental Fit Index), TLI (Tucker-Lewis Index), CFI (Comparative Fit Index), and RMSEA (Root Mean Square Error of Approximation).

To visually present the theoretical framework of the confirmatory factor analysis used in this study (i.e., the relationship between variables and their internal items), Figure 3-4 (Confirmatory Factor Analysis (CFA) Model) is provided below.

Figure 3- 7:
Confirmatory Factor Analysis (CFA) Model



To further quantify the fit of the confirmatory factor analysis model and verify whether it meets the academic evaluation standards, the specific values of each model fit index (including acceptable ranges and measured results) are detailed in Table 3-18.

Table 3- 18:
Model Fit Indices

Fit Index	Acceptable Range	Measured Value
CMIN		238.978
DF		165
CMIN/DF	<3	1.448
GFI	>0.9	0.927
AGFI	>0.9	0.907
RMSEA	<0.08	0.039
IFI	>0.9	0.978

NFI	>0.9	0.931
TLI(NNFI)	>0.9	0.974
CFI	>0.9	0.977
SRMR	<0.05	0.037

As shown in the table, the CMIN/DF is 1.448; the GFI, AGFI, NFI, TLI, IFI, and CFI all meet the standard of being above 0.9; and the RMSEA is 0.039, which is below 0.08. Given that most of the fit indices meet the criteria typically used in SEM research, it can be concluded that the model demonstrates a good fit to the data.

On the basis of confirming the good fit of the CFA model, the specific results of convergent validity verification (including standardized factor loadings, composite reliability (CR), and average variance extracted (AVE)) are presented in Table 3-19.

Table 3- 19:
Confirmatory Factor Analysis Results

Variable	Item	Estimate	S.E.	C.R.	P	Factor Loading	CR	AVE
Overall	Importance of Death Education	1.000				0.765	0.897	0.637
	Attitude towards Incorporating Death Education	0.913	0.097	9.432	***	0.758		
	Barriers and Challenges to Implementing Death Education	0.767	0.080	9.624	***	0.782		
	Knowledge of Death Education and Related Topics	0.661	0.067	9.805	***	0.835		
	Psychological and Professional Benefits of Death Education	0.969	0.099	9.799	***	0.846		
Importance of Death Education	Q5	1.000				0.877	0.892	0.674
	Q6	0.892	0.053	16.984	***	0.807		
	Q7	0.797	0.048	16.505	***	0.806		
	Q8	0.901	0.056	16.203	***	0.790		
Attitude towards Incorporating Death Education	Q9	1.000				0.825	0.840	0.636
	Q10	0.625	0.049	12.849	***	0.749		
	Q11	0.663	0.047	14.112	***	0.817		
Barriers and Challenges to Implementing Death	Q12	1.000				0.768	0.884	0.604
	Q13	1.165	0.091	12.770	***	0.744		
	Q14	1.218	0.088	13.815	***	0.793		

Education	Q15	0.883	0.070	12.583	***	0.724	
	Q16	1.020	0.068	15.064	***	0.852	
Knowledge of Death Education and Related Topics	Q17	1.000				0.737	0.847 0.581
	Q18	1.316	0.104	12.689	***	0.778	
	Q19	1.154	0.094	12.238	***	0.757	
	Q20	1.564	0.128	12.221	***	0.777	
Psychological and Professional Benefits of Death Education	Q21	1.000				0.758	0.843 0.573
	Q22	0.895	0.073	12.277	***	0.743	
	Q23	0.804	0.063	12.734	***	0.771	
	Q24	0.898	0.072	12.391	***	0.756	

As shown in the table, all items exhibit standardized factor loadings greater than 0.5, and the residuals are all positive and significant, indicating that there are no Heywood cases or other violations of estimation. The composite reliability (CR) values are all greater than 0.7, and the average variance extracted (AVE) values are all greater than 0.5. Thus, all conditions for convergent validity are met, and the model fit is also within an acceptable range. Therefore, all items are retained for subsequent analysis.

3.8.2.2 Reliability and Validity Testing of the Scale in a Quasi-Experimental Pre-test-Post-test Design

3.8.2.2.1 Research Sample and Data Collection

To independently examine the psychometric properties of the three scales used in this study, separate data collection procedures were conducted for each instrument. All data were obtained through a pilot study using stratified random sampling. A unified and rigorous data cleaning protocol (including checks for response time, response patterns, and missing values) was implemented to ensure the quality of each dataset.

Sample for the Chinese version of the Coping with Death Scale (CDS): To validate the Chinese version of the Coping with Death Scale (CDS) among the general university student population, 215 undergraduates from diverse academic majors (including humanities, social sciences, engineering, natural sciences, business, and law) were recruited. After excluding invalid responses, 208 valid questionnaires were retained. The

sample exhibited broad academic diversity, ensuring the scale's reliability and validity in a generalized population.

Sample for the Chinese version of the Death Attitude Profile-Revised (DAP-R): As the DAP-R is also applicable to the general population, an independent cohort of participants was recruited specifically for this scale. A total of 220 questionnaires were distributed, and 205 valid responses were obtained. This sample similarly consisted of students from non-medical disciplines, with no overlap with the CDS validation sample, thereby providing an independent basis for validating the DAP-R.

Sample for the Chinese version of the Frommelt Attitudes Toward Care of the Dying Scale Form B (FATCOD-B): Since the FATCOD-B is designed specifically to assess attitudes among healthcare professionals and related majors, its validation must be based on the target population. Accordingly, participants were recruited independently from medical schools. A total of 230 questionnaires were distributed to medical students. After applying additional screening criteria (including verification of academic background alongside standard checks), 198 valid responses were retained exclusively for the analysis of the FATCOD-B scale.

Summary:This study collected three independent samples, each with approximately 200 valid responses, far exceeding the recommended minimum sample size of 5–10 times the number of scale items for factor analysis. This targeted sampling strategy ensured that each scale was validated within its most appropriate and purest target population, significantly enhancing the accuracy and reliability of the research findings.

3.8.2.2.2 Reliability and Validity Testing of Coping with Death Scale

This study used the Chinese version of the Coping with Death Scale (CDS), translated by Zheng et al. (2021), as a tool to assess changes in participants' coping ability with death before and after the experiment. The dimensions and items of the Chinese version of the Coping with Death Scale are shown in the table 3-20.

Table 3- 20:
Dimensions and Items of the Chinese Version of the Coping with Death Scale

Dimension	Items
Ability to Communicate about Death or Dying with Others	21, 22, 23, 24, 25, 26, 27, 28
Self-Acceptance of Death	6, 7, 8, 11, 17
Ability to Handle Post-Death Matters	3, 4, 5, 10
Coping Ability with Death	2, 18, 19, 20
Self-Awareness and Expression of Death	1, 9, 12, 13, 14
Capacity for Life Reflection	15, 16

Reliability Analysis

The reliability analysis showed that the scale has good internal consistency. Cronbach's alpha for the total scale was 0.911, and values for each dimension ranged from 0.701 to 0.855. In addition, the scale has good stability, with split-half reliability of 0.790 and test-retest reliability of 0.968. Specific results are shown in Table 3- 21.

Table 3- 21:
Reliability Analysis of the Chinese Version of the Coping with Death Scale

Item	Cronbach's α Coefficient	Split-Half Reliability	Test-Retest Reliability
Total Scale	0.911	0.790	0.968
Ability to Communicate about Death or Dying with Others	0.855	0.815	0.959
Self-Acceptance of Death	0.841	0.687	0.942
Ability to Handle Post-Death Matters	0.852	0.923	0.940
Coping Ability with Death	0.770	0.701	0.828
Self-Awareness and Expression of Death	0.732	0.655	0.925
Capacity for Life Reflection	0.736	0.625	0.810

Validity Analysis

To examine the validity of the Chinese version of the Coping with Death Scale, this study conducted content validity and construct validity analyses. In terms of content validity, expert review results indicated that the overall content validity of the scale was good, with an S-CVI of 0.985. The content validity of each item was also good, with an I-CVI range of 0.825-0.995, suggesting that the scale's content covered all aspects of the

research concept. In terms of construct validity, exploratory factor analysis was first conducted. The results showed a KMO value of 0.890, and the p-value of Bartlett's test of sphericity was less than 0.01, indicating that the data were suitable for factor analysis. Factor analysis extracted 6 factors, consistent with theoretical expectations. The cumulative variance explained was 61.000%, indicating that the scale has good construct validity. The detailed validity analysis is presented in Table 3- 22.

Table 3- 22:
Validity Analysis of the Chinese Version of the Coping with Death Scale

Validity Type	Index	Value	Explanation
Content Validity	S-CVI	0.985	Overall content validity of the scale is good
	I-CVI (Range)	0.825-0.995	Content validity of each item is good
Construct Validity	KMO	0.890	Suitable for factor analysis
	Bartlett's Test of Sphericity	P<0.01	Suitable for factor analysis
	Number of Factors	6	
	Cumulative Variance Explained	61.000%	Good construct validity

The results of the exploratory factor analysis are shown in the table below:

Table 3- 23:
Results of the Exploratory Factor Analysis of the Chinese Version of the Coping with Death Scale (n=208)

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
21	**0.371**	0.143	0.149	0.341	0.267	0.345
22	**0.257**	0.151	0.235	0.554	0.182	0.017
23	**0.714**	0.058	0.008	0.016	0.132	0.178
24	**0.809**	0.010	0.171	0.127	0.157	0.144
25	**0.857**	0.223	0.050	0.357	0.142	-0.163
26	**0.693**	0.152	0.172	0.352	-0.010	0.082
27	**0.783**	0.061	0.158	0.186	0.024	0.067
28	**0.610**	0.057	0.126	-0.152	0.249	0.205
6	0.063	**0.664**	0.128	-0.030	0.135	0.187
7	0.104	**0.858**	0.170	0.239	0.201	0.005
8	0.099	**0.859**	0.166	0.239	0.200	0.003
11	0.084	**0.682**	0.074	0.190	0.153	0.284
17	0.254	**0.381**	0.004	0.280	0.347	0.224
3	0.114	0.098	**0.924**	0.074	0.071	0.061

4	0.175	0.203	**0.710**	0.086	0.064	0.175
5	0.169	0.154	**0.508**	0.142	0.299	0.127
10	0.104	0.093	**0.925**	0.075	0.077	0.040
2	0.101	0.328	0,216	**0.291**	-0.097	0.468
18	0.193	-0.050	0.005	**0.0503**	0.427	0.317
19	0.109	0.292	0.094	**0.761**	0.130	0.286
20	0.171	0.270	0.122	**0.783**	0.061	0.185
1	0.199	0.321	0.196	**-0.324**	0.495	0.199
9	0.138	0.263	0.071	0.015	**0.613**	0.000
12	-0.056	-0.324	-0.089	-0.120	**-0.357**	-0.233
13	0.165	0.103	0.116	0.108	**0.595**	0.318
14	0.126	0.207	0.174	0.244	**0.536**	-0.045
15	0.197	0.029	0.176	0.245	**0.273**	0.528
16	0.133	0.184	0.017	0.077	0.242	**0.715**
Rotated Eigenvalue	3.607	3.347	2.926	2.738	2.308	**2.098**
% of Variance Explained	12.800	11.920	10.480	9.700	8.200	7.500
Cumulative % of Variance Explained	12.800	24.720	35.200	44.900	53.100	60.600

Based on the findings, the Chinese version of the Coping with Death Scale demonstrates acceptable levels of reliability and validity and is therefore suitable for use as an effective instrument for evaluating death coping ability in participants within this study.

3.8.2.2.3 Reliability and Validity Testing of the Death Attitude Profile-Revised (DAP-R)

This study employed the Chinese version of the Death Attitude Profile-Revised (DAP-R), which was developed by Wong et al. (1994), translated by Liao (2000), and adapted for cross-cultural use by Tang (2013). The DAP-R was used as a tool to assess changes in participants' attitudes toward death before and after the experiment. The items and corresponding dimensions of the scale are presented in Table 3-24.

Table 3- 24:
Dimensions and Items of the Death Attitude Profile-Revised (DAP-R)

Dimension	Items (Number)
Fear of Death	1, 2, 7, 18, 20, 21, 32
Death Avoidance	3, 10, 12, 19, 26
Neutral Acceptance	6, 14, 17, 24, 30
Approach Acceptance	4, 8, 13, 15, 16, 22, 25, 27, 28, 31
Escape Acceptance	5, 9, 11, 23, 29

Reliability Analysis

The reliability analysis indicated that the scale possesses good internal consistency, with a Cronbach's α of 0.825 for the total scale and all dimension-level values exceeding 0.70. It also demonstrated strong stability, reflected in a Spearman–Brown split-half coefficient of 0.802 for the total scale, with all subscales above 0.70. Additionally, test–retest reliability yielded a Pearson correlation coefficient (r) of 0.818 for the total scale. Detailed results are presented in Table 3- 25.

Table 3- 25:
Reliability Analysis of the Chinese Version of the Death Attitude Profile-Revised (DAP-R)

Dimension	Cronbach's α	Spearman-Brown Split-Half Coefficient	Item Pearson Correlation Range (r)	Test-Retest Reliability (r)
Fear of Death	0.819	0.742	0.618 ~ 0.774	0.82
Death Avoidance	0.810	0.768	0.714 ~ 0.809	0.82
Neutral Acceptance	0.765	0.770	0.668 ~ 0.777	0.82
Approach Acceptance	0.870	0.830	0.549 ~ 0.763	0.82
Escape Acceptance	0.863	0.839	0.791 ~ 0.833	0.82

Validity Analysis

To examine the validity of the Chinese version of the Death Attitude Profile-Revised (DAP-R), this study conducted content validity and construct validity analyses. In

terms of content validity, the Pearson correlation coefficients between each item and its corresponding dimension ranged from 0.555 to 0.795 (Neutral Acceptance: 0.111). Except for the “Neutral Acceptance” dimension, the other dimensions showed good correlations with the total scale score ($p < 0.001$). The “Neutral Acceptance” dimension had an extremely low correlation, requiring further investigation. For construct validity, the results of exploratory factor analysis showed a KMO value of 0.900, and the p-value of Bartlett's test of sphericity was less than 0.001, indicating that the data were suitable for factor analysis. The factor analysis extracted 5 factors, consistent with the theoretical framework. The cumulative variance explained was 55.500%, suggesting that the scale has good construct validity.The results are presented in the following two tables.

Table 3- 26:
Validity Analysis of the Chinese Version of the Death Attitude Profile-Revised (DAP-R)

Validity Type	Index	Value	Explanation
Content Validity	Pearson Correlation (Range) between each item and its dimension	0.555 ~ 0.828	Items have good correlation with their respective dimension, meaning that the items measure the concepts that they were intended to measure ($p < 0.001$)
	Pearson Correlation Range between each dimension and total score	0.625 ~ 0.795 (Neutral Acceptance : 0.111)	Except for the “Neutral Acceptance” dimension, there are good correlations between other dimensions and the total scale score ($p<0.001$). The “Neutral Acceptance” dimension has an extremely low correlation and warrants further investigation.
Construct Validity	KMO	0.900	The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was excellent, indicating that data is appropriate for factor analysis.
	Bartlett’s Test of Sphericity	$p < 0.001$	Bartlett’s test of sphericity was significant ($p<0.001$), indicating that the correlation matrix was not an identity matrix, supporting factor analysis.
	Number of Factors	5	5 factors were extracted, consistent with the number of dimensions specified in the prior theory.
	Cumulative Variance Explained	55.500%	The extracted factors explain 55.500% of the total variance, indicating good construct validity, although there is still some unexplained variance.

Table 3- 27:
Exploratory Factor Analysis Results of the Chinese Version of DAP-R (n=205)

Item	Factor I	Factor II	Factor III	Factor IV	Factor V
23	**0.825**	0.105	0.411	-0.099	0.197
11	**0.794**	0.192	0.328	-0.093	0.044
9	**0.774**	0.095	0.315	-0.228	0.136
29	**0.771**	0.095	0.417	-0.111	0.166
5	**0.708**	0.107	0.236	-0.083	0.096
12	0.183	**0.757**	0.157	0.049	0.259
10	0.094	**0.747**	0.113	0.071	0.248
3	0.079	**0.724**	-0.027	-0.042	0.427
19	0.135	**0.702**	0.200	-0.136	0.228
26	0.124	**0.650**	0.109	-0.078	0.385
15	0.598	0.222	**0.672**	-0.316	0.057
28	0.256	0.112	**0.671**	0.018	0.224
31	0.231	-0.022	**0.663**	0.118	0.114
22	0.538	0.243	**0.633**	-0.191	0.153
13	0.604	0.209	**0.630**	-0.313	0.047
8	0.687	0.302	**0.629**	-0.377	0.081
25	**0.731**	0.206	0.618	-0.308	0.150
4	0.330	0.433	**0.614**	-0.140	-0.067
16	0.554	0.134	**0.577**	-0.252	0.040
27	**0.750**	0.140	0.541	-0.217	0.185
24	-0.175	0.000	-0.117	**0.777**	-0.100
14	-0.122	0.095	-0.084	**0.777**	-0.100
6	-0.053	0.009	-0.085	**0.770**	-0.005
17	-0.115	-0.045	0.116	**0.618**	-0.335
30	-0.060	-0.219	0.146	**0.616**	-0.281
21	0.208	0.466	0.134	-0.210	**0.735**
32	0.265	0.362	0.240	-0.108	**0.700**
18	0.238	0.550	0.077	-0.299	**0.659**
2	0.125	0.615	-0.058	-0.153	**0.650**
7	0.246	0.363	0.119	-0.260	**0.646**

20	0.295	0.155	0.429	0.003	**0.578**
1	0.001	0.547	-0.100	0.044	**0.493**
Eigenvalue	7.893	4.200	2.816	1.583	1.399
% of Variance Explained	24.665	13.123	8.799	4.947	4.371
Cumulative % of Variance Explained	24.665	37.788	46.588	51.535	55.906

In summary, this study comprehensively examined the reliability and validity of the Chinese version of the Death Attitude Profile-Revised (DAP-R). The results showed that the scale has good internal consistency reliability (Cronbach's $\alpha > 0.7$ for each dimension, and a split-half reliability of 0.840 for the total scale), making its measurements reliable. Both content and construct validity analyses indicate that the scale has good validity, and the factor analysis results are consistent with the theoretical framework. Although the "Neutral Acceptance" dimension showed a low correlation with the total scale score, overall, the Chinese version of the Death Attitude Profile-Revised (DAP-R) demonstrated good reliability and validity and is a suitable tool for this study.

3.8.2.2.4 Reliability and Validity Testing of the Frommelt Attitudes Toward Care of the Dying Scale Form B (FATCOD-B)

The Frommelt Attitude Toward Care of the Dying Scale, Form B (FATCOD-B), originally developed by Frommelt (1991), consists of 30 items designed to assess attitudes toward caring for individuals who are dying. The instrument is commonly treated as a unidimensional measure of attitudes toward end-of-life care.

In the present study, exploratory and confirmatory factor analyses were conducted to examine the dimensional structure of the scale within the Mainland Chinese higher education context. The analysis identified a six-factor structure comprising:

(1) Attitude toward the interests of the dying person,
(2) Attitude toward caring for the dying person,
(3) Attitude toward the necessity of family support,
(4) Attitude toward fear of caring for the dying person,
(5) Attitude toward communication with the dying person, and
(6) Attitude toward caring for the dying person's family members.

The item allocation for each factor is presented in Table 3.28. Responses were recorded using a Likert-type scale, with reverse-coded items adjusted accordingly. The validated six-factor model demonstrated satisfactory reliability and construct validity within this sample.

This study used the Chinese version of the FATCOD-B scale. This scale is a revision of the Frommelt Attitudes Toward Care of the Dying Scale (FATCOD) developed by Frommelt (1991), and it was translated into Chinese by Wang(2016). The specific dimensions and corresponding items of the scale are as follows.

Table 3-28:
Dimensions and Items of the Scale

Dimension	Items (Number)
Attitude toward the interests of dying person	19, 21, 23, 24, 25, 27
Attitude toward caring of the dying person	1, 2, 5, 6, 7, 13
Attitude toward the necessity of family support	12, 17, 18, 20, 29
Attitude toward fear of caring of dying person	3, 8, 11, 26, 30
Attitude toward communication with the dying person	4, 16, 22, 28
Attitude toward caring of the dying person's families	9, 14, 15

To examine the suitability of the Chinese version of the FATCOD-B scale in this study, a reliability and validity assessment was conducted. The results demonstrated that the scale exhibits good internal consistency, with a Cronbach's α coefficient of 0.802, as well as high stability, reflected by a test-retest reliability value of 0.963. Detailed reliability analysis results are presented in Table 3-29.

Table 3-29:
Reliability Analysis Results of the Chinese Version of the FATCOD-B Scale

Reliability Measure	Coefficient	Interpretation
Cronbach's Alpha (α)	0.802	Good internal consistency reliability. Suggests the items within the scale consistently measure the same construct.
Test-Retest Reliability	0.963	Excellent stability reliability. Indicates high consistency of scores over time.

Validity analysis

In terms of validity, the content validity index (CVI) was 0.91. Exploratory factor analysis results showed that the scale extracted six common factors, with a cumulative variance explained of 55.800%. Because this scale is a well-established instrument, with good construct validity demonstrated across numerous studies, this study did not conduct confirmatory factor analysis. The reliability and validity analysis results of the Chinese version of the FATCOD-B scale are shown in the following two tables.

Table 3-30:
Validity Analysis Results of the Chinese Version of the FATCOD-B Scale

Validity Type	Indicator	Value	Explanation
Content Validity	Content Validity Index (CVI)	0.91	Good - Indicates that the scale content adequately covers the topic to be measured.
Structural Validity	Kaiser-Meyer-Olkin (KMO) Value	0.820	Good - Indicates that the data is suitable for factor analysis.
	Bartlett's Test of Sphericity	$p < 0.001$	Significant - Indicates that there is a significant correlation between variables, supporting the conduct of factor analysis.
	Number of Factors Extracted	6	Consistent with the a priori theoretical structure
	Cumulative Variance Explained	55.800%	Moderate - The extracted factors explain a considerable portion of the variance in the data, indicating good structural validity.

Table 3-31:
Results of the Exploratory Factor Analysis of the Chinese Version of the FATCOD-B Scale (n=198)

Item	Factor 1: Patient Autonomy & Care	Factor 2: Personal Avoidance of Dying	Factor 3: Family Involvement	Factor 4: Discomfort with Death	Factor 5: Fear of Intimacy	Factor 6: Family Support & Education
19	**0.717**	-	-	-	-	-
21	**0.723**	-	-	-	-	-
23	**0.826**	-	-	-	-	-
24	**0.817**	-	-	-	-	-
25	**0.759**	-	-	-	-	-
27	**0.704**	-	-	-	-	-
1	-	**0.779**	-	-	-	-
2	-	**0.817**	-	-	-	-
5	-	**0.724**	-	-	-	-
6	-	**0.786**	-	-	-	-

7	-	**0.660**	-	-	-	-
13	-	**0.640**	-	-	-	-
12	-	-	**0.755**	-	-	-
17	-	-	**0.774**	-	-	-
18	-	-	**0.713**	-	-	-
20	-	-	**0.731**	-	-	-
29	-	-	**0.697**	-	-	-
3	-	-	-	**0.618**	-	-
8	-	-	-	**0.638**	-	-
11	-	-	-	**0.657**	-	-
26	-	-	-	**0.659**	-	-
30	-	-	-	**0.541**	-	-
9	-	-	-	-	**0.790**	-
14	-	-	-	-	**0.740**	-
15	-	-	-	-	**0.750**	-
4	-	-	-	-	-	**0.630**
16	-	-	-	-	-	**0.714**
22	-	-	-	-	-	**0.690**
28	-	-	-	-	-	**0.485**
10	-	-	-	-	-	**0.796**

Overall, the Chinese version of the FATCOD-B scale showed satisfactory reliability and validity for this study. Internal consistency was confirmed through a good Cronbach's α of 0.802, and test-retest reliability was high, at 0.963, demonstrating its stability and dependability. The scale's content validity was supported by a content validity index of 0.91, signifying it covered the appropriate domain. The exploratory factor analysis, which identified the original six factors and explained 55.800% of variance, along with a KMO of 0.820 and significant Bartlett's test, indicated good construct validity in this specific Chinese cultural context. Therefore, this study concludes that the Chinese version of the FATCOD-B scale is a sound and effective tool to assess the attitudes of medical students towards palliative care before and after their curriculum.

3.9 Data Collection and Analysis Procedures

3.9.1 Semi-Structured Interview Data Collection and Analysis Procedures

Preparation: The researchers developed an interview guide based on the research objectives, which covered key themes such as personal views on death, preparedness for death and bereavement in existing education, and the necessity of death education. The interview questions were designed to be clear, concise, and open-ended to encourage participants to engage in in-depth reflection and sharing. In addition, the researchers paid particular attention to cultural sensitivity, especially when discussing sensitive topics such as death.

Participant Recruitment: The study employed purposive sampling to recruit 20 faculty members and 8 administrative staff from higher education institutions in mainland China. To ensure the representativeness of the research findings, the researchers focused on selecting faculty members from diverse disciplinary backgrounds, particularly those from medical and health, social sciences, and humanities. In addition, administrative staff were also drawn from various departments, including academic management, student affairs, and healthcare administration.

Conducting Interviews: At the beginning of each interview, the researchers introduced the purpose of the study and clearly explained the voluntary nature of participation and the principle of confidentiality. The interviews were conducted in a comfortable and private environment to help participants feel at ease when discussing sensitive topics. The researchers followed the interview guide but made flexible adjustments based on the conversation and responses. Each interview lasted between 30 and 60 minutes.

Recording and Transcription: To ensure the accuracy of the interview content, the researchers audio-recorded the interview process after obtaining participant consent. Subsequently, verbatim transcripts of the interviews were prepared to capture the complete interview content and prepare for further analysis.

Data Analysis: The researchers used thematic analysis to analyze the transcribed data, focusing on identifying themes and patterns in the responses. Thematic coding was used to categorize the data into key themes such as barriers to death education, cultural

perceptions, institutional challenges, and suggestions for curriculum redesign. Specific analytical steps included: familiarizing with the data, initial coding, searching for themes, reviewing themes, defining and naming themes, and writing the analytical report.

3.9.2 Focus Group Discussion Data Collection and Analysis Procedures

Preparation: The researchers developed a discussion guide containing open-ended questions to ensure discussions revolved around key research themes while allowing for flexibility. In terms of participant recruitment, the researchers employed stratified random sampling to recruit students from different disciplines at higher education institutions in Shandong Province (Institution A), Jiangxi Province (Institution B), Jilin Province (Institution C), and Yunnan Province (Institution D). The final focus group recruitment resulted in 30 students across six groups, with 5 students per group. Specifically, institutions A and B each had one group, while institutions C and D each had two groups. Sampling ensured diversity in student backgrounds, including students from medical and health, humanities, and social science disciplines.

Group Composition: The researchers formed 6 focus groups, each containing 5 students, to ensure participants could speak freely and the moderator could listen carefully to each participant's point of view. The number of participants in each group was determined based on suggestions from previous studies and considering the depth of discussion required, while ensuring representation from various disciplinary backgrounds.

Conducting Discussions: Focus group discussions were held in a quiet and private environment to ensure confidentiality and encourage participants to speak freely. The moderator began by introducing the study's purpose and emphasizing the voluntary nature of the discussions and the principle of confidentiality. The discussions were guided by a set of open-ended questions, with the moderator allowing for deeper exploration of new topics as they emerged. Each session lasted approximately 60 to 90 minutes.

Recording and Transcription: With participants' consent, the discussion process was audio-recorded. These recordings were subsequently transcribed verbatim for analysis. Researchers also used note-taking to capture non-verbal cues and group dynamics to supplement the transcribed data and provide richer insights for subsequent analysis.

Data Analysis: The researchers used thematic analysis to analyze the transcribed data in order to identify key themes, patterns, and categories from the discussions. By examining and analyzing these findings, the research aims to understand students' perceptions, relevance, and anticipated barriers or challenges related to death education. The specific analytical steps were consistent with those used for semi-structured interviews, including: familiarizing with the data, initial coding, searching for themes, reviewing themes, defining and naming themes, and writing the analytical report.

3.9.3 Data Saturation

In qualitative research, data collection continues until thematic saturation is achieved—that is, when no substantially new themes, patterns, or insights emerge from additional interviews. In this study, saturation was carefully monitored during the coding and analysis process. After approximately [insert number, e.g., 18–20] individual interviews and the completion of focus group discussions, recurring patterns began to repeat across participants without generating novel conceptual insights.

Subsequent interviews were conducted to confirm stability of emerging themes; however, no new substantive categories were identified. At this point, data saturation was considered achieved. Therefore, participant recruitment was concluded to ensure methodological sufficiency while maintaining analytical depth. This approach aligns with established qualitative research standards regarding saturation-based sampling adequacy.

3.9.4 Questionnaire Survey Data Collection and Analysis Procedures

Preparation: Based on the research objectives, the researchers designed a structured questionnaire comprising demographic information, Likert-scale attitude questions, knowledge questions regarding concepts of death and bereavement, and a small number of open-ended questions. The researchers ensured that the questions were clear, non-offensive, and respectful of perspectives from different cultural backgrounds.

Participant Recruitment: The researchers employed stratified random sampling to recruit 480 university students and a number of faculty, staff, and administrative personnel from higher education institutions in Shandong Province(Institution A), Jiangxi Province

(Institution B), Jilin Province (Institution C), and Yunnan Province (Institution D). This sampling strategy ensured diversity in student backgrounds, including those from medical and health, humanities, social sciences, natural sciences, and engineering disciplines.

Survey Distribution: The researchers distributed the questionnaires via online platforms such as Wenjuanxing to ensure convenience and efficiency. Clear instructions were provided to ensure participants understood the purpose and process of the survey. Technical support was also provided to address any questions or concerns from the participants.

Data Collection: The researchers collected the online survey data and conducted preliminary data cleaning to ensure accuracy and completeness. All responses were exported from the Wenjuanxing platform and stored securely.

Data Analysis: In analyzing the data, descriptive statistics—including frequencies, percentages, and means—were first employed to summarize survey responses and outline general perceptions toward death education among students and teachers, highlighting broad trends within the dataset. Additionally, inferential statistical methods such as t-tests and ANOVA were applied to examine whether significant differences in attitudes existed across demographic groups, such as between students from healthcare and non-healthcare backgrounds or among faculty from different academic departments. Furthermore, content analysis was used to systematically categorize and interpret responses to open-ended questions, enabling deeper qualitative insights into participants' perspectives.

3.9.5 Quasi-Experimental Study Data Collection and Analysis Procedures

Preparation and Participant Recruitment:A quasi-experimental design was implemented with sophomore and junior students from the medical and education majors at University D. Using stratified randomization (major, gender, grade) and block randomization (block size = 8), 160 participants were assigned to four groups: medical experimental, medical control, education experimental, and education control (n = 40 per group). Screening excluded individuals with prior death education or significant psychological distress, as measured by the SCL-90.

Intervention and Data Collection: All groups completed pre- and post-intervention assessments measuring death attitudes and knowledge of end-of-life care. The

experimental group participated in a 10-week death education course (2h theory + 1h practice/week), while the control group received a matched mental health curriculum of equivalent duration that deliberately avoided death-related topics. All instruction was delivered by the same teaching team under a single-blind protocol. Following the post-test, semi-structured interviews were conducted with the experimental group to gather in-depth qualitative feedback on the intervention.

Data Analysis: Data have been analyzed using repeated measures analysis of variance (ANOVA) to compare pretest and posttest scores between experimental and control groups, assessing the intervention's effect on death attitudes and knowledge. Thematic analysis have been applied to qualitative feedback from participants.

3.10 Chapter Summary

In conclusion, this chapter provided an overview of the research philosophy, research design, ethical considerations, target population and sampling method. Chapter 3 of the study provided a comprehensive account of the research instruments employed, particularly emphasizing the concepts of validity and reliability. The subsequent chapter delved into the methodologies employed for data collection and analysis. The primary objective of the research methodology employed in this study was to address all the research inquiries about restructuring a conventional death education framework within the context of higher education in mainland China. The ultimate aim was to facilitate the comprehensive integration of death education across all higher education institutions in mainland China.

CHAPTER 4:

DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter adopts a mixed - research method, integrating qualitative and quantitative research, to comprehensively analyze the actual situation, existing problems, and the needs of relevant stakeholders regarding death education in higher education. It provides strong support for constructing a scientific curriculum framework that is compatible with local culture. In the qualitative research, through meticulously designed semi - structured interviews, focus - group discussions with students, and open - ended questions in questionnaires, rich data are collected. Then, four core themes are extracted using thematic analysis, which deeply explores the perceptions, attitudes, needs of teachers and students towards death education, as well as the practical dilemmas and curriculum design ideas. In the quantitative research, 798 valid questionnaires are analyzed from multiple dimensions to examine the differences among different groups. This verifies the universality of the qualitative research conclusions and provides quantitative evidence.

4.2 Qualitative Data Analysis, Results, and Discussion

4.2.1 Positioning of Post-Intervention Interviews within the Experimental Design

The post-intervention interviews reported in this section form part of Stage 4 of the quasi-experimental research design. Following completion of the structured death education curriculum and administration of post-test assessments (DAP-R, CDS, and FATCOD-B), a subset of participants was purposively selected for in-depth interviews.

These interviews were conducted to complement the quantitative findings by exploring students' experiential reflections, perceived psychological changes, and professional

preparedness in greater depth. The qualitative data therefore function as an explanatory component, enabling triangulation of pre–post quantitative outcomes and providing richer contextual understanding of the curriculum's impact.

4.2.2 Coding Process Description

This study adopted thematic analysis to investigate issues related to the incorporation of death education in higher education. The specific steps were as follows: First, data was collected. To obtain rich qualitative data, the study designed a semi-structured interview guide (the interview guide can be found in the appendix) and conducted interviews with 20 faculty members and 8 educational administrators, each interview lasting approximately 30 to 60 minutes. Data was also gathered from student groups through focus group discussions. Concurrently, questionnaires were administered to faculty and students, incorporating open-ended questions (questions 25-29). These specific questions provided a solid foundation and detailed information to support subsequent thematic coding and analysis. Audio recordings were transcribed into text, and after initial reading and comprehension of all interview texts, the researchers gained a preliminary understanding of participants' responses and established an overall impression. Then, all data were organized in NVIVO11PLUS and nodes were divided and coded to help the research data.

4.2.2.1 Initial Concepts

The interview transcripts were analyzed sentence by sentence, marking keywords or phrases to form initial concepts. These initial concepts will be used in the subsequent coding process to construct a more specific coding structure to comprehensively analyze the research data. This coding process provides a solid foundation for the research. Examples of conceptualized coding are shown in the table below.

Table 4- 1:
Examples of Conceptualized Coding

Original Interview Statements	Initial Concepts
Death education is actually an important part of life education and cannot be avoided.	Death education is an important component of life education
Death education and life education are two sides of the same coin. Life education teaches people to love life, while death education helps people understand the finiteness of life.	Recognition of the Connection between Death Education and Life Education
Offering death education courses independently can meet special needs. It	The independent

can help family members of terminally ill patients, trauma - affected people, and those in special occupations relieve fear and cope with grief.	implementation of death education courses can meet special needs
We are cautious because we are worried that students may be frightened or have negative emotions.	Prudent anticipation of the psychological impact on students
If there is policy guidance from the education administrative department, I will be more confident in offering relevant courses.	The view on the necessity of policy guidance
Some parents are very resistant when they hear about 'death education' and think it's unlucky.	The degree of emphasis on parents' cultural sensitivity
At the teaching practice level, teachers lack experience in targeted teaching design and find it difficult to transform the abstract concept of death into teaching content suitable for students' age and cognitive level.	Objective evaluation of one's own professional ability
Games simplify death into a revivable symbol, so my perception of death was that I could equip a resurrection armor. However, the unexpected death of a classmate made me realize that real - world death education must face the emotional weight of death.	The pluralistic experiential basis of cognition
Students who have experienced the illness or death of a relative have a deeper and more personalized understanding of death, while those who haven't usually have a relatively vague perception of it.	The group - differentiated characteristics of cognition
I haven't received proper education in this area. When it comes to death, I'm more confused and don't know how to describe it appropriately.	Cognitive limitations due to the lack of scientific guidance
We are actually very curious and think that death education is important, but we are also a bit afraid to talk about death. This feeling is very conflicting.	The ambivalent emotional tendency towards the topic of death
The topic of death is rarely mentioned at school and at home. In fact, I want to know more about it.	The open - ended willingness to discuss death
The unexpected death of a close friend had a great impact on me. During that period, I often asked myself what would happen to those around me if I suddenly left and what regrets I had in my life. This self - exploration made me realize the fragility of life and also made me start to actively pay attention to death education.	The willingness of self - exploration and reflection
Using VR technology to recreate the ICU scene allows us to truly experience the atmosphere of death in a safe virtual environment, helping us break through the abstract understanding of death. However, it is also recommended to set up a "safe word" mechanism so that discussions can be paused at any time when the content causes discomfort.	The dual - construction needs of embodied cognition and safety protection
I'm still a bit scared. Can we use animations or stories to make it easier for us to accept?	The preference for lightweight and entertaining curriculum presentation
I hope to share and discuss with classmates. It makes me feel more secure this way.	Demand for a collaborative discussion mechanism
We hope the course can explain in detail the specific process of organ failure in the terminal stage of life and the physiological changes caused by different diseases leading to death.	Scientific Knowledge of Death
We hope the course can provide content including the historical evolution of death taboos and the comparison of death narratives in different civilizations, helping students establish a "de - mystified" cognitive framework of death.	Strategies for breaking cultural taboos
When interning in the hospital, I often witnessed the death of patients and sometimes felt anxious about the impermanence of life. I hope the course can teach us how to regulate such emotions.	Techniques for intervening in death anxiety
I hope to know how teachers can guide the class to deal with collective grief when students experience the death of a classmate.	Methods for managing grief emotions
We need to learn pain management techniques for terminally ill patients and communication methods with them and their families. These skills are very	Practical skills in hospice care

practical in clinical work.	
If a classmate shows suicidal tendencies, how can we identify the signs and effectively intervene?	Crisis response and handling capabilities
We need to discuss specific issues such as "whether euthanasia is in line with the dignity of life" and "how to allocate medical assistance when resources are limited" instead of just talking about "the preciousness of life" in general.	A pragmatically valuable system for recognizing the significance of death
We hope the course can help us establish a positive view of life and death, enabling us to understand how to cherish life and plan our lives based on the understanding of death.	Reconstruction of life meaning through a death-conscious perspective
I think teachers must have received real - world death education training and be able to tell us in plain language that "birth, old age, illness, and death" are all natural. Then we will be more likely to accept and discuss it.	The construction of teachers' professional capabilities
We want to watch some documentaries or videos of expert lectures.	The development of teaching resources
My family is very secretive about the topic of death.	Discourse taboo system
My parents don't want us to talk about death. They say it's unlucky and will affect our luck.	Inter - generational cultural transmission
Currently, there are no mandatory regulations to support schools in carrying out death education.	Absence of policy support system
I haven't received specialized death education training, and there are few teaching materials and guidelines.	Inadequate resource allocation mechanism
Nowadays, public opinion has a great impact on schools. Schools act with caution. Once a negative incident occurs, schools and teachers will bear a lot of pressure.	Fear of negative social backlash
Most schools choose to embed death - related content in marginal courses such as "mental health" and "medical humanities", replacing systematic teaching with fragmented knowledge points to avoid becoming the focus of public opinion due to "actively touching on the topic of death".	Defensive teaching strategies
We must first figure out the purpose of this course. I think it is truly meaningful to enable everyone to rationally understand death and be emotionally comforted at the same time.	Clear curriculum objectives
It would be best if the course can equip us with practical skills to deal with death - related anxiety and grief.	Emphasizing practical coping strategies
It is very important to provide psychological counseling and support when discussing death.	Focus on mental health education
The course can integrate psychological, ethical, and cultural content, allowing students to understand life - and - death issues from multiple perspectives.	Comprehensive multi-disciplinary perspective
Set teaching content at different levels according to students' ages and psychological stages.	Tiered curriculum design
Arrange discussion and reflection sessions in class so that everyone can freely express their views on death, which is more helpful in eliminating fear.	Focus on interactive modalities
I think we can integrate death education content into Chinese, history, or psychology courses. This way, we don't need to offer a new course specifically, and the pressure is less.	Integrating into the existing curriculum system
If an elective module can be set up, students who are interested can choose to study it in depth. It will not affect compulsory courses and can meet individual needs.	Establishing dedicated elective courses
Offering general compulsory courses can enable all students to overcome their fear and taboo of death and establish rational views of life and values. The medical profession is directly related to life and death, and its death education cannot remain at the general education level. Differentiated courses should be designed according to the clinical needs of medicine.	General education requirements & professional reinforcement

A single exam score cannot reflect the internalization of the core concepts of death education by students. Only through diversified evaluation methods, such as asking students to write reflection reports and participate in group discussions, can we truly see their growth and changes when facing the topic of death.	Diverse assessment methods
Collect feedback through instant questionnaires and group discussions, so that we can quickly understand students' acceptance of death education courses and their questions, and adjust teaching strategies in a timely manner.	Establishing timely feedback mechanisms
It is necessary to continuously collect feedback and make dynamic adjustments based on it. We cannot remain unchanged.	Continuous improvement & dynamic adjustment

4.2.2.2 Theme Summarization

To identify the interrelationships between concepts, this study compared and analyzed existing concepts, sought out their relationships, and organized and clustered repeated concepts, summarizing them into sub-themes. The organization of these sub-themes will help answer the core questions of the research, while also helping to avoid duplication and confusion of information. To further delve into the research and answer our research questions, we refined these sub-themes. The final thematic coding analysis resulted in a total of four core themes and 15 sub-themes. The coding results are shown in Table 4-2.

Table 4-2:
Thematic Coding Table

Core Themes	Sub - themes	Initial Concepts
Views and Attitudes Toward Death Education	Basic Views of Teachers on Death Education	Death education is an important component of life education
		Recognition of the Connection between Death Education and Life Education
		The independent implementation of death education courses can meet special needs
	Teachers' Attitudinal Tendencies in Teaching Practice	Prudent anticipation of the psychological impact on students
		The view on the necessity of policy guidance
		The degree of emphasis on parents' cultural sensitivity
		Objective evaluation of one's own professional ability
	Cognitive Characteristics of Students towards Death Education	The pluralistic experiential basis of cognition
		The group - differentiated characteristics of cognition
		Cognitive limitations due to the lack of scientific guidance
	Emotional Characteristics of Students towards Death Education	The ambivalent emotional tendency towards the topic of death
		The open - ended willingness to discuss death
		The willingness of self - exploration and reflection

Students' Needs for Death Education Curriculum	Curriculum Form Requirements	Preference for the Dual Construction of Immersive Learning and Safety protection	
		Preference for Lightweight and Entertaining Curriculum Presentation	
		Demand for Collaborative Discussion Mechanisms	
	Curriculum Content Requirements	Cognitive Dimension Construction	Scientific Knowledge of Death
			Strategies for Breaking Cultural Taboos
		Psychological Dimension Support	Techniques for Intervening in Death Anxiety
			Methods for Managing Grief Emotions
		Practical Dimension Training	Practical Skills in Hospice Care
			Crisis Response and Handling Capabilities
		Value Dimension Reconstruction	A pragmatically valuable system for recognizing the significance of death
			Reconstruction of life meaning through a death-conscious perspective
Barriers to Implementation death education curriculum	Curriculum Resource Requirements	The construction of teachers' professional capabilities	
		The development of teaching resources	
	Cultural Disciplinary Inertia	Discourse Taboo System	
		Inter - generational Cultural Transmission	
	Institutional Blockages	Absence of Policy Support System	
		Inadequate Resource Allocation Mechanism	
	Impact of Organizational Action Logic	Fear of Negative Social Backlash	
		Defensive Teaching Strategies	
	Underlying Principles of Curriculum Framework Design	Clear Curriculum Objectives	
		Emphasize Practical Coping Strategies	
		Focus on Mental Health Education	
		Comprehensive Multi-Disciplinary Perspective	
Generating Design Considerations for death education Curriculum Framework	Curriculum Content Design	Tiered Curriculum Design	
		Focus on Interactive Modalities	
	Curriculum Organization & Arrangement	Integration into Existing Curriculum	
		Establishing Dedicated Elective Courses	
		General Education Requirements & Professional Reinforcement	
	Curriculum Assessment & Feedback Mechanism Design	Diverse Assessment Methods	
		Establishing Timely Feedback Mechanisms	
		Continuous Improvement & Dynamic Adjustment	

4.2.3 Elaboration of Coding Results

Based on the coding results, four major themes were identified: “Views and Attitudes Toward Death Education,” “Students' Needs for Death Education Curriculum,” “Barriers to Implementation death education curriculum,” and “Generating Design Considerations for death education Curriculum Framework” A detailed elaboration of the coding results is presented below.

4.2.3.1 Findings for Objective 2:Theme 1-Views and Attitudes Toward Death Education

4.2.3.1.1 Sub - theme 1: Basic Views of Teachers on Death Education

Death Education as an Important Component of Life Education: Qualitative research findings from teachers and administrators on death education indicate that some teachers view death education as an important component of life education, with its core value lying in using the discussion of death to reflect back on the meaning of life. Teacher T1 (Curriculum Development) from Institution A pointed out that death education is a prerequisite for understanding life; for example, through simulated scenarios such as “writing a will,” students can reflect on their responsibilities and passions in life. Teacher T9 (Medical Humanities) from Institution B, emphasized from a clinical practice perspective that medical students must confront death issues to master the core ethics of life-saving. This view is echoed by the research conclusions of educational administrator L3 from Jiangxi Province – L3 found that death education can concretize the transience and irreversibility of life, becoming an important foundation for students to establish a concept of “reverence for life.”

Recognition of the Connection Between Death Education and Life Education: Research indicates that teachers generally recognize a profound connection between death education and life education. Teacher T15 (Existentialism) from Institution C further elaborated: “Life education often teaches people to ‘cherish time,’ while death education provides a deeper perspective, guiding people to think about the finitude of life, thereby gaining a more profound understanding of its meaning.” The practical experience of Teacher T2 (Psychological Counseling) from Institution A also corroborates this point: In campus psychological intervention cases, effective grief processing often requires facing death directly, thereby helping students better understand the value of life.

Death Education Differs from Life Education, Requiring Dedicated Death Education Curricula to Meet Special Needs: Regarding special needs in the university setting such as psychological crisis, trauma intervention, and professional ethics, some interviewees also emphasized the distinction between death education curricula and life education, as well as its irreplaceability. For example, Teacher T4 (Student Psychology) from Institution A pointed out: “Death education is related to life education, but there are also essential differences. After sudden campus events, students’ deep fears need to be addressed specifically through bereavement counseling facing ‘death,’ rather than being covered by the usual calls for life values.” In addition, educational administrator L7 from Yunnan Province mentioned that extreme cognitions (such as self-harm or excessive fear) need to be corrected in a safe environment through topics such as “the right to die.” Teacher T16 (Nursing Education) from Institution D emphasized that medical and nursing students need to master end-of-life communication skills through simulated scenarios, a kind of refined training that cannot be replaced by life value curricula.

4.2.3.1.2 Sub-theme 2: Teachers’ Attitudinal Tendencies in Teaching Practice

Prudent Anticipation of the Psychological Impact on Students: Teachers generally view the psychological impact of teaching on students with caution, emphasizing a balance between educational depth and psychological resilience. T5 from Institution A pointed out: “When dealing with death and trauma issues, it is necessary to assess students’ psychological baselines in advance. We are very afraid of causing secondary harm to students.” T13 from Institution C emphasized: “When discussing suicide intervention and other content, it is necessary to control the intensity of the cases to avoid overexposure to negative situations.”

The View on the Necessity of Policy Guidance: In an environment lacking policy support, the teacher population exhibits “legitimacy anxiety.” T3 from Institution A emphasized that policy ambiguity leads to educational alienation: “The existing curriculum standards only have a vague statement of ‘life education.’ We are forced to disguise death education as ideological and moral education.” T9 from Institution B noted: “Curricula involving sensitive topics like death require policy-defined boundaries between academic and value guidance; otherwise, it is difficult to grasp the educational bottom line. Teachers and schools may choose not to offer the curriculum to avoid risk.”

The Degree of Emphasis on Parents' Cultural Sensitivity: Teachers are concerned that parents may resist death education due to cultural beliefs. T6 from Institution B said: "Under the influence of Confucian culture, parental resistance brings additional pressure to teachers, which to some extent leads to a negative attitude toward curriculum development." Admin L7 described a typical conflict event: "In this area, some parents believe that death education is 'inauspicious' and complained about the curriculum, leading to its forced suspension."

Objective Evaluation of One's Own Professional Ability: Teachers frankly assess their strengths and weaknesses in teaching death education, generally lacking confidence in teaching death education curricula. The predicament of T16 from Institution D is typical: As a medical and nursing teacher, they can explain the criteria for brain death, but cannot answer the ultimate question of 'why do people live?' T2 from Institution A reflected on professional limitations, stating that the listening skills used in individual counseling are completely ineffective in a classroom of 40 people.

4.2.3.1.3 Sub-theme 3: Cognitive Characteristics of Students towards Death Education

The Pluralistic Experiential Basis of Cognition: Students' cognition of death education is not based on systematic knowledge, but shaped by family culture, media exposure, and religious or scientific beliefs.First, expressions of death in family settings shape early perceptions. An engineering student (Institution A, FG1) stated: "When relatives passed away, my family said they 'got old' rather than 'died,' making me consider it a taboo topic." A nursing student (Institution B, FG2) described family pressure: "When my mother learned I would contact corpses in nursing training, she warned me not to 'bring death and bad luck home,' leading me to associate death education with negativity until professional study changed my view."Second, films, games, and other media form initial associations with death. An education student (Institution C, FG4) noted: "The show Unnatural Death led me to think death education was only medical respect—but the actual curriculum's psychological focus changed my view." An engineering student (Institution D, FG5) reflected: "Games treat death as a resettable symbol. A classmate's accidental death made me realize real death education must confront emotional weight." Third, some students exhibit cultural hybridity. A Tibetan humanities student (Institution A, FG1) integrated faith and science: "I accept 'physiological death' but connect it with soul transmigration, reflecting the coexistence of scientific and traditional views." A social

science student (Institution C, FG3) described cognitive conflict: “As an atheist, I see death biologically, but comforting ‘new life’ rituals at a relative’s Christian funeral showed me education must reconcile scientific explanations with cultural emotional needs.”

The Group-Differentiated Characteristics of Cognition: Cross-professional analysis of six focus groups (N=30) revealed that students’ cognition of death education exhibits five distinct characteristics shaped by disciplinary thinking and life experience. These reflect the interplay between professional training and personal background: (1) Medical students emphasized clinical practice, integrating ethics with technical skills. One (FG6, Institution D) noted: “Ineffective rescue showed medicine’s limits. Simulated end-of-life meetings train communication—using phased discussions to balance data and family emotions.” Their focus is professional ethics, delivering difficult news, and resilience, reflecting patient-centered practice. (2) Natural science/engineering students employed scientific logic. One (FG3, Institution C) contrasted cell apoptosis and euthanasia ethics: “Tension exists between scientific death (e.g., telomere shortening) and cultural views.” A computer engineering student (FG5, Institution D) used programming metaphors: “Life as a ‘Gantt chart’—reducing death anxiety by achieving milestones like innovation.” This group treats death as a systematic, solvable problem. (3) Social science/education students focused on social support systems. A sociology student (FG1, Institution A) designed “intergenerational death cafes” to reduce mutual anxiety. An education student (FG4, Institution C) proposed campus interventions: “Transform grief into class cohesion through group counseling—making memorials, planting trees.” Their approach embeds death education within relational networks to enhance collective wellbeing. (4) Humanities students drew on philosophy/literature to examine existence. A philosophy student (FG3, Institution C) linked Socrates to euthanasia: “Death education extends ‘living toward death’.” A literature student (FG5, Institution D) reflected via The Death of Ivan Ilyich: “Writing a ‘life mission’ makes death a driver of meaning.” Their thought uses classics to turn death into a tool for reflection. (5) Students with traumatic experience used emotion to reconstruct meaning. One (FG5, Institution D) who lost relatives converted responsibility into values through “life review.” Another (FG3, Institution C) used narrative workshops for psychological repair: “Death education teaches meaning-making despite loss.” Their shared path is transforming trauma through story and ritual,transcending the limitations of professional backgrounds.

Cognitive Limitations Due to the Lack of Scientific Guidance: It is worth noting that almost all interviewees pointed out that before receiving formal death education, they generally lacked systematic scientific guidance, leading to two cognitive limitations. First, simplifying death into “complete termination” or “mysterious event”: A nursing student (FG2) from Institution B confessed: “Before studying nursing, I always thought that death was just ‘the body breaking down and never waking up again.’ I didn’t know the concept of ‘death with dignity’ in end-of-life care, and I didn’t understand the ecological significance of death as ‘part of the cycle of life.’ ” Second, acceptance barriers at the emotional level: A natural science student (FG4) highlighted a critical gap in her education: while her high school biology curriculum covered the "physiological mechanisms of death," it completely omitted guidance on "how to face the grief." This sole focus on scientific facts left her profoundly unprepared, and resulted in a "long period of denial" after her grandfather's passing.

4.2.3.1.4 Sub-theme 4: Emotional Characteristics of Students towards Death Education

Through the coded analysis of interview texts, students’ emotional feedback on death education exhibits significant ambivalent and open-ended characteristics.

The Ambivalent Emotional Tendency Towards the Topic of Death: Students generally exhibit a dualistic contradictory psychology of “curiosity–avoidance” and “rationality–emotion” toward the topic of death. A sociology student (FG1) from Institution A stated: “I want to understand how different cultures deal with death, but when I think about the death of myself or my family members, I still feel fear. Rational learning and emotional fear coexist.” A medical student (FG6) from Institution D mentioned the emotional separation in clinical practice: “In anatomy class, I can analyze the physiological mechanisms of death, but the first time I witnessed a patient’s death, my body trembled uncontrollably. Death education made me realize that rational cognition cannot completely eliminate instinctive emotional responses.” This contradictory emotional essence reflects the dynamic balance between students’ “knowledge acquisition needs” and “emotional protection mechanisms,” forming a complex mentality of actively approaching and passively defending against the topic of death.

The Open-Ended Willingness to Discuss Death: Students generally have exploratory interest in the topic of death, but face real-world communication barriers. One student stated: “Death is rarely mentioned in class. I want to understand it, but I don’t

know who to ask. Friends and family avoid this topic." (FG1, Institution A) This predicament is significant among natural science students: "I can understand the mechanisms of death from biology, but emotional fears cannot be eliminated by knowledge. I need someone to discuss this contradiction." Furthermore, students exhibit "emotional aphasia." A sociology student (FG3) from Institution C mentioned: "I feel sad when talking about death, but more than that I'm confused and don't know how to describe this feeling." The expressive difficulties of those with traumatic experiences are more prominent: "After a loved one passes away, I want to share my feelings with classmates, but I swallow the words, afraid of being judged as 'pretentious.' Posting on social platforms also worries about being seen as 'seeking sympathy.'" Under these constraints, some students directly expressed the need to engage in death discussions: "I hope the institution offers death education, so we have a place to openly and legitimately discuss death, without fear of being treated as having a psychological problem."

The Willingness of Self-Exploration and Reflection: Many university students clearly show an active willingness to explore the topic of death through focus group interviews, even in the absence of death education. The research found that students generally exhibit an inherent desire to actively explore the topic of death. Keywords such as "meaning pursuit" and "self-examination" appeared frequently in the interviews, confirming that they regard death as an important medium for self-reflection, such as a philosophy student (FG3, Institution C) examining life choices by envisioning the end of life. Students' reflections present progressive characteristics, such as a medical student (FG2, Institution B) gradually developing from the initial physiological shock when facing death to deep thinking about end-of-life expectations, ultimately forming the habit of regularly sorting out life values, moving from fragmented cognition to systematic cognition. At the same time, the paths of self-exploration are diverse, with students from different majors and life experiences using different strategies. Engineering students (FG5, Institution D) tend to quantify life values into dimensions such as family responsibility and professional contribution, optimizing life values with death as a node. Education students (FG4, Institution C) reflect on the avoidance of death by adults by observing the pure reactions of children facing death, thereby maintaining an open attitude towards life topics. In summary, when faced with the finitude of life, students have the instinct to spontaneously construct a "death-life" thinking chain. This commonality of active reflection provides a key entry point for the implementation of death education.

4.2.3.2 Findings for Objective 1:Theme 2-Students' Death Education Curriculum Needs

4.2.3.2.1 Sub-theme 1: Curriculum Format Needs

This study, through qualitative analysis, found that students' needs for death education curricula exhibit diverse characteristics: a desire for both immersive, in-depth exploration and a need for psychological safety barriers; a preference for both lightweight, entertaining presentations and a reliance on collaborative discussions to obtain social support. These findings provide an important basis for optimizing curriculum design for death education and promoting the practice of death education curricula.

Preference for the Dual Construction of Immersive Learning and Safety Protection: In terms of curriculum form, students exhibit contradictory needs of both wanting to participate deeply and seeking psychological safety guarantees, specifically embodied in two interconnected dimensions: situational immersion and psychological protection.

In terms of situational immersion, students generally expect to deepen their understanding of death through immersive learning methods. Students from various disciplines at Institution A (FG1) and Institution C (FG4) suggested that using VR technology to recreate ICU scenarios could enable them to experience the atmosphere of death in a safe virtual environment, thereby helping to break through their abstract perceptions of death. A medical student (FG6) from Institution D further added that role-playing activities simulating end-of-life conversations not only help improve communication skills but also reduce the psychological pressure of facing death topics directly in a controlled situation. This immersive learning method enables students to achieve in-depth exploration of death issues within safe boundaries.

In terms of psychological protection, students highly value the protection of individual psychological boundaries. Students from various disciplines emphasized that they should have the right to voluntarily withdraw from curriculum discussions. Some students suggested setting up a "safe word" mechanism, which can be used to pause at any time when the discussion content causes discomfort. This need reflects students' urgent pursuit of psychological security when exploring death issues, indicating that establishing controllable psychological safety barriers is an important prerequisite for ensuring the smooth implementation of the curriculum.

Preference for Lightweight and Entertaining Curriculum Presentation: Students show a clear tendency toward lightweight and entertaining forms of curriculum content presentation. In focus group interviews, the need for lightweight knowledge presentation permeated various specific forms. An engineering student (FG1) from Institution A directly suggested that they hoped to transform death education content into lightweight carriers such as short videos and animations, believing that "short videos are short in length and have high information density, which can quickly convey core knowledge without making people feel overburdened"; a nursing student (FG2) from Institution B also said, "We can break down complex life and death ethics knowledge into small knowledge points, coupled with simple and easy-to-understand graphic explanations, so that it is much easier to learn."

At the same time, entertaining design and lightweight presentation are mutually integrated. A nursing student (FG2) from Institution B took the "Journey of Life" board game as an example, pointing out that understanding life and death ethics through gamified decision-making tasks is more attractive and effective than traditional lectures, and the board game itself is the lightweight integration of knowledge into the game segment; a social science student (FG3) from Institution C further explained that entertainment does not weaken the seriousness of the educational content, but rather "carries a serious core in a relaxed form." The combination of lightweight forms such as short videos and animations with interesting narrative methods makes abstract life issues easier to accept.

Demand for Collaborative Discussion Mechanisms: Students show a strong expectation for collaborative discussion mechanisms, viewing them as an important way to alleviate psychological pressure and promote knowledge construction. Students from different disciplinary backgrounds all emphasized that when discussing the sensitive topic of death, peer interaction can provide emotional support and cognitive supplementation. A medical group student (FG6) from Institution D proposed that group debates help integrate clinical experience and ethical theories. A nursing group student (FG2) from Institution B suggested holding case sharing sessions to reduce feelings of loneliness by sharing the experiences of others. An education student (FG4) from Institution C further pointed out that collaborative learning creates a "safe space for expression," making them more willing to share their confusion and feelings about death. This group interaction not only promotes

the diversified construction of knowledge but also forms a social support network to cope with death anxiety.

4.2.3.2.2 Sub-theme 2: Curriculum Content Requirements

Research shows that disciplinary background, professional development expectations, and personal experience significantly influence students' needs for death education. Disciplinary differences make science and engineering students focus on scientific explanations, and liberal arts students focus on philosophical thinking; professional direction determines that medical students urgently need practical skills in hospice care and educators value life education guidance; and personal death experiences directly trigger the need for psychological support and value dimension reconstruction.

(1) Cognitive Dimension Construction Needs

Scientific Knowledge of Death: In the cognitive dimension, students demonstrate a dual need for deconstructing the scientific knowledge of death and strategies for breaking cultural taboos. Students from different disciplinary backgrounds have significant differences in their knowledge demands. Medical and nursing students are more concerned with the biological mechanisms of death, as mentioned by a nursing student (FG2) from Institution B in the interview: "We hope the curriculum can explain in detail the specific process of organ failure in the terminal stage of life, as well as the physiological changes that cause death in different diseases, which is essential for our future clinical work." This need is essentially a priori knowledge preparation for the role of the profession. Natural science and engineering students showed interest in death-related technologies, such as an engineering student (FG5) from Institution D said: "I hope the curriculum can introduce the working principle of life support equipment and its use boundaries." reflecting their disciplinary thinking tendency to technologically explore death issues. The cognitive needs of humanities and social science students focused on the social and cultural construction of death. A sociology student (FG3) from Institution C asked: "How do the different views on death of Confucian 'prudent pursuit of ancestors' and Taoist 'following nature' affect end-of-life decision-making in modern society?" This kind of demand reflects the need for cross-cultural interpretation of the phenomenon of death.

Strategies for Breaking Cultural Taboos: In the cognitive dimension, students exhibit a strong desire for strategies for breaking cultural taboos. The existence of cultural

taboos stems from the avoidance of death topics in traditional society, as stated by students (FG3, FG4) from Institution C: “The topic of death is always taboo in my family. This avoidance makes me both curious and fearful about death.” At the same time, a natural science student (FG1) from Institution A also asked: “Why is it considered inauspicious to talk about death?” In fact, the students’ above questions are actually a reflective deconstruction of cultural discipline. A education student (FG6) from Institution D proposed: “I hope the curriculum provides content including the historical evolution of death taboos, the comparison of death narratives in different civilizations, such as comparing the cultural functions of Chinese ‘funeral rituals’ and the Mexican ‘Day of the Dead,’ to help students establish a cognitive framework of ‘demystifying death.’” They hope to break cultural taboos about death through the curriculum and understand the process of constructing death concepts in social culture.

(2) Psychological Dimension Support Needs

In the psychological dimension, students urgently need techniques for intervening in death anxiety and methods for managing grief emotions, and the need scenarios of students in different majors are different.

Techniques for Intervening in Death Anxiety: Existential anxiety is the core of students’ psychological needs. A psychology student (FG5) from Institution D stated: “Thinking about the death of myself or my relatives, I fall into panic that ‘life is meaningless.’ Can the curriculum teach us how to live with this anxiety?” Due to their profession, medical students face more exposure to death and need content related to occupational psychological protection. A clinical medicine student (FG6) from Institution D shared: “During hospital internships, I often witnessed patients passing away and sometimes felt anxiety about life’s impermanence. I hope the curriculum can teach us how to regulate these emotions.”

Methods for Managing Grief Emotions: The psychological needs of non-medical students stem largely from daily life scenarios. An education student (FG1) from Institution A recalled: “After a loved one passed away, I was immersed in sadness and felt trapped. I hoped the curriculum would provide methods for coping with grief.” Education students also paid attention to how to help future students deal with death-related psychological issues. One education student (FG4) from Institution C proposed: “I want to

know how teachers should guide a class through collective grief when students experience the death of a classmate."

(3) Practical Dimension Training Needs

Practical needs present a division between "professionalism" and "universality," reflecting the differentiated positioning of the tool value of death education by students of different disciplines.

Practical Skills in Hospice Care: The practical needs of medical and nursing students are highly specialized. They have a strong demand for practical skills in hospice care. A nursing student (FG2) from Institution B clearly stated: "We need to learn the pain management skills of terminally ill patients, and the methods of communicating with terminally ill patients and their families. These skills are very useful in clinical work." In addition, a nursing student (FG6) from Institution D paid special attention to "culturally sensitive care," highlighting the necessity of cultivating cross-cultural practical ability, and proposed: "How to respect the end-of-life customs of different ethnic groups (such as Buddhist end-of-life chanting, Muslim cleansing rituals)?"

Crisis Response and Handling Capabilities: The practical needs of non-medical students focus on daily life scenarios, and they pay more attention to the crisis response and handling capabilities in daily life. For example, an engineering student (FG1) from Institution A proposed: "If a classmate has suicidal tendencies, how should we identify the signals and effectively intervene?" Education students focused on the systematic response to campus crisis events. A education student (FG4) from Institution C pointed out: "We need to learn how to design preventive curricula to reduce students' death anxiety and suicidal ideation, etc.," reflecting the upgraded practical thinking from "crisis management" to "risk prevention."

(4) Value Dimension Reconstruction Needs

In the value dimension, students expect to construct a pragmatically valuable system for recognizing the significance of death and realize reconstruction of life meaning through a death-conscious perspective.

A Pragmatically Valuable System for Recognizing the Significance of Death: Students reject abstract theoretical indoctrination and pursue a value framework with

practical guidance significance. A philosophy student (FG5) from Institution D emphasized: "We need to discuss specific issues such as 'whether euthanasia is in line with the dignity of life' and 'how to allocate medical assistance when resources are limited,' rather than talking about 'the preciousness of life' in empty terms." This demand promotes the extension of curriculum content to the field of applied ethics, guiding students to carry out utilitarian and deontological value trade-offs through an "ethical dilemma case library" (such as ventilator allocation during the COVID-19 pandemic, treatment abandonment decisions for terminally ill patients) to form the ability to make situational moral judgments.

Reconstruction of Life Meaning Through a Death-Conscious Perspective: The value transformation of "living towards death" is a deep-seated appeal of students. Students of all majors believe that only by understanding the inevitability of death can they more clearly plan the possibilities of life. They hope to re-examine the meaning of life through death education. An education student (FG5) from Institution D emphasized that understanding death's inevitability allows people to better plan their lives. She expressed hope that the curriculum could help foster a constructive outlook on life and death, stating that such awareness would enable individuals to "cherish life and plan their lives more fully."A philosophy student (FG1) from Institution A also provided a comprehensive explanation: "I hope that death education can guide students to reverse the life goals under the ultimate framework of death and realize the cognitive leap from 'passively accepting death' to 'actively giving meaning to life.'"

4.2.3.2.3 Sub-theme 3: Student Curriculum Resource Requirements

Students' needs for death education curriculum resources are concentrated in two major areas: the construction of teachers' professional capabilities and the development of teaching resources. This reflects students' urgent expectations for high-quality and diversified curriculum implementation conditions.

The Construction of Teachers' Professional Capabilities: Students show a strong concern for teachers' professional qualifications. One student sharply pointed out based on their teacher's daily counseling situation: "The teacher themselves doesn't dare to talk about death, how can they teach us?" This statement profoundly reveals the current shortcomings of teachers' capabilities in the field of death education. Further analysis reveals that students expect death education teachers to possess three core competencies:

First, the ability to integrate interdisciplinary knowledge, requiring teachers to integrate knowledge from multiple disciplines such as medicine, philosophy, and law, as said by a student (FG2) from Institution B: “Teachers should be able to explain the death process from a medical perspective and explore the meaning of life from a philosophical level”; Second, crisis intervention practical skills, needing to master professional tools such as “bereavement dialogue skills” and “suicide risk assessment models,” and mastering professional communication techniques such as “death metaphor conversion skills” to guide students to face sensitive issues in a scientific and empathetic way; Third, the ability to guide value neutrality, when guiding students to discuss controversial issues, both stimulating the collision of diverse views and avoiding excessive penetration of personal value preferences. It is worth noting that students with different disciplinary backgrounds have different focuses on teachers’ abilities. Medical students value teachers’ clinical experience and ethical knowledge more, while humanities and social science students focus on teachers’ cultural interpretation and theoretical thinking abilities. In addition, an education student (FG5) from Institution D directly stated that they hope to establish a standardized, hierarchical, and classified death education teacher certification system to provide students with high-quality curriculum provision guarantees.

The Development of Teaching Resources: Qualitative analysis shows that students’ needs for multimodal teaching resource development show significant characteristics of the times and individual differences. A natural science student (FG5) from Institution D proposed: “I hope there are 3D simulation videos showing the human death process, which is more intuitive than textual descriptions” (S14), reflecting a preference for visual and technological resources; a education student (FG4) from Institution C emphasized: “It is necessary to develop picture book and animation resource packs suitable for the K12 stage to prepare for future teaching practice,” highlighting resource needs oriented to professional development. After coding and classification, student needs cover four major resource types: (1) Film and television: documentaries (such as Life Inside Out), scenario simulation videos; (2) Text: academic paper compilations, selected collections of death-themed literary works; (3) Interactive: VR hospice care experiences, online ethical debate platforms; (4) Expert resources: interviews with industry practitioners, lecture videos from interdisciplinary experts. This multimodal demand is essentially a practical expression of students’ “immersive learning” and “self-directed inquiry learning,” requiring curriculum resources to break through the single form

of traditional textbooks and build a three-dimensional resource system covering online and offline channels, integrating multiple media.

4.2.3.3 Findings for Objective 3: Theme 3-Barriers to Implementation death education curriculum

4.2.3.3.1 Sub-theme 1: Cultural Disciplinary Inertia

Discourse Taboo System: Discourse taboos related to "death" in the educational field manifest as a widespread self-censorship of language among teachers, forming a significant barrier to promoting death education. Teacher T2, a psychology teacher at Institution A, mentioned in an interview that when explaining content involving suicidal tendencies or bereaved students, they would instinctively use expressions such as "psychological crisis support" instead of "suicide intervention," and "bereavement psychological care" instead of "bereavement counseling." Although this semantic adjustment stems from the original intention of avoiding triggering student anxiety, it objectively leads to the implicit dissolution of core issues—teachers overfocus on the "safety" of language, but instead include key concepts such as "death" and "suicide" in the taboo category, forming a self-limiting teaching framework.

Similar behaviors by teachers of multiple disciplines confirmed the prevalence of this phenomenon: Education teacher T1 (Institution A), in order to avoid students' psychological defenses, is accustomed to using euphemisms such as "end of life" and "parting" instead of "death"; Clinical ethics teacher T6 with a medical background from Institution B also frankly stated that, affected by the socio-cultural atmosphere, even with professional knowledge, they would still deliberately avoid stimulating expressions such as "the process of death" in class.

This language screening mechanism based on cultural taboos directly leads to the "de-problematization" of teaching content. Teachers tend to wrap death-related issues in uncontroversial and gentle frameworks such as "life education" and "humanistic care," for example, simplifying the discussion of "the right to die" into a general discussion of "quality of life," or transforming the "ethics of end-of-life decision-making" into a superficial explanation of family communication skills. A education student (FG4) from Institution C gave feedback: "The curriculum rarely directly involves death itself, but more

often repeats the slogan of ‘cherishing life,’ and it feels like a shadow curriculum of life education.”

Inter-generational Cultural Transmission: The continuing influence of traditional family concepts on the teaching of death issues. Although the research subjects are university students, the narratives of teachers and students still reflect the deep constraints of traditional family concepts on the teaching of death issues. There is a mature home-institution communication mechanism in higher education teaching, and parents often suggest controlling the depth of discussion on content such as “suicide” and “end-of-life decision-making” through home-institution communication, believing that such heavy topics may affect students’ emotions, and suggesting that teachers appropriately simplify relevant discussions when such content is involved to balance professionalism and student acceptance.

Student feedback shows a clear intergenerational cognitive difference. A engineering student (FG5) from Institution D mentioned that the family’s avoidance of suicide topics (such as “listen less and ask less about bad luck”) made them choose silence when discussing it in mental health class; A humanities student (FG1) from Institution A, affected by the family’s implicit rule of “death topics cannot be made public,” avoided sharing their experiences in a sociology curriculum involving bereavement culture.

Teacher practice also confirms the continuity of parental influence. Sociology teacher T12 (Institution A) found that students often cite family views (such as “talking about death disrespects elders”) in interdisciplinary curricula such as “Introduction to Philosophy,” reflecting an avoidance tendency formed by family socialization. To this end, teachers need to adjust the depth of teaching, for example, focusing the ethical discussion of hospice care on concrete aspects such as family emotional support, rather than abstract issues such as the dignity of life. Parents’ implicit attitude towards death topics has subtly influenced students’ cognition, making it difficult to touch the core of death issues in interdisciplinary teaching. Teachers have to balance academic integrity and student acceptance, such as explaining grief processing through daily parting experiences such as the death of pets, rather than directly cutting into major bereavement scenarios. Under this realistic consideration, the deep academic value of death issues is difficult to fully develop, forming a practical challenge to the teaching objectives.

4.2.3.3.2 Sub-theme 2: Institutional Blockages

The promotion of death education in universities faces deep constraints of institutional blockages, specifically manifested as the structural absence of the Absence of Policy Support System and the inefficient imbalance of the Inadequate Resource Allocation Mechanism.

Absence of Policy Support System: Death education faces institutional ambiguity in national education policy, hindering its implementation in universities.First, this ambiguity deprives universities of a clear implementation basis. Admin L3 pointed out that although the Ministry of Education proposed integrating life-and-death education into ideological and political curricula in 2021, the policy had not granted it independent curricular status. As a result, universities lacked guidance in arranging class hours, allocating teachers, and securing resources. Consequently, death education is often marginalized and fails to fulfill its intended role. Admin L7 further emphasized that it has not entered the core of educational planning. Second, the absence of policy leads to practical challenges. Without mandatory requirements, most universities can only conduct fragmented attempts without stable resource support. There are also no standards for teacher evaluation or student credits. Furthermore, the lack of a teacher training system exacerbates these difficulties. Admin L6 stated that teachers themselves lacked systematic knowledge in death education, expressing concern over theoretical inaccuracy and insufficient counseling skills. As a result, courses often remained superficial, focusing on preaching about life values rather than addressing core issues. Other interviewees (Admins L1, L2, L5) also emphasized the importance of policy support.The lack of a clear and complete policy framework inevitably obstructs the development of death education in universities. It is urgent for the state to address this in top-level design to ensure death education can fulfill its proper role.

Inadequate Resource Allocation Mechanism: The interdisciplinary nature of death education (involving multiple fields such as education, medicine, and ethics) requires coordinated promotion by departments such as civil affairs, health and health, and education, but an effective collaboration framework has not yet been formed. For example, Admin L6 of G Province cited community work feedback and noted that while both grassroots communities and schools recognize the value of death education, the absence of coordinated policy guidance has left social organizations uncertain about “what support to

provide" and "how to connect with universities." For example, although a community wished to use its elderly service center as a practical site for death education, the lack of a clear cooperation process and division of responsibilities meant efforts remained only at the preliminary discussion stage. The lack of policy support has made it difficult for universities to integrate medical resources (such as hospice care cases) and social resources (such as funeral culture venues). The practical teaching link has long relied on the teacher's personal social relations to promote, and it is difficult to form a standardized and sustainable curriculum system.

4.2.3.3.3 Sub-theme 3: Impact of Organizational Action Logic

Social public opinion has long bound death issues with labels such as "negative emotions," "ethical disputes," and "psychological stimulation," causing universities to regard it as "highly sensitive teaching content." Administrator L3 pointed out: "Once a negative event occurs, the institution and teachers will bear a lot of pressure." If students experience psychological fluctuations in curriculum discussions, or have emotional discomfort after experiencing activities such as "writing a will" and "end-of-life visits," the institution is highly susceptible to accusations of "improper topic design" and "absence of psychological intervention," and may even trigger a media public opinion siege.

Public opinion pressure has spawned a "defensive teaching strategy" for death education in universities, specifically manifested as: (1)Proactively Shallowing Discussion Depth: Teachers generally adopt a "de-controversialization" strategy, avoiding core issues such as "suicide intervention," "ethics of euthanasia," and "end-of-life decision-making." For example, when designing a "bereavement culture" curriculum, a sociology teacher at Institution B, fearing that people would think that showing end-of-life scenes was not positive enough, gave up using film and television data shot on-site at funeral homes, and ultimately only used animations to demonstrate the grief processing process. (2) Risk Avoidance in Practical Teaching: T17 from Institution D indicated that most institutions choose to incorporate death-related content into peripheral curricula—such as "mental health" and "medical humanities"—thereby replacing systematic instruction with fragmented knowledge points. This approach aims to avoid becoming a focus of public opinion due to what was described as "actively touching on death issues."

But in fact, the defensive strategies of universities not only do not alleviate public opinion questions, but instead strengthen society's cognitive biases about death education.

When death issues exist in the classroom only in a "safe" and "lightweight" form (such as only discussing the death of pets rather than the loss of relatives, only emphasizing the meaning of life rather than the essence of death), students cannot establish a rational understanding of death through systematic learning, but instead implicitly accept the social consensus that "death is a taboo that cannot be discussed in depth." A social science student (FG1) from Institution A mentioned in an interview: "Our counselor teacher also stutters when mentioning death and suicide, which makes us even more afraid to talk about this matter in life and study." This is exactly as L3 lamented: "When society regards death education as a 'flammable and explosive product,' the institution will naturally choose the safest 'no touch,' but this just makes education miss the best opportunity to help young people establish a healthy view of life and death."

4.2.3.4 Findings for Objective 5&6: Theme 4 - Generating Design Considerations for death education Curriculum Framework

4.2.3.4.1 Sub-theme 1: Underlying Principles of Curriculum Framework Design

At the level of design philosophy, the main concepts include Clear Curriculum Objectives, Emphasize Practical Coping Strategies and Focus on Mental Health Education.

Clear Curriculum Objectives: Data from multiple surveys indicate that the scientific setting of curriculum objectives is a basic element for the effective implementation of death education. Student feedback from the field of medical education shows that a clinical medicine student (FG2) from Institution B specifically pointed out: Curriculum design must address two core issues—educational purpose and expected outcomes. Through systematic learning, it should not only eliminate abstract perceptions of the end of life but also "cultivate the professional qualities to face patients in the terminal stage." This view was extended to nursing students: "Mastering hospice care operating specifications and the ethics of corpse care is not only a manifestation of professional ability, but also an ultimate guardian of the dignity of life."

The professional perspective of education administrators provides theoretical support for this. Academic Administrator L5 from Province G proposed: "Curriculum design must first clarify the curriculum objectives so that the curriculum can form an organic connection between content, form, and objectives." Educational Executive Supervisor L1 from Province S emphasized the demand-oriented principle of objective

design: “Objective setting must be based on solid needs research, capturing students’ cognitive blind spots and emotional pain points through forms such as questionnaires and interviews.”

Emphasize Practical Coping Strategies: Students and teachers, starting from different perspectives, jointly emphasized that the construction of death education curricula should focus on practicality. At the student level, a student (FG1) from Institution A frankly stated: “The feeling of helplessness when facing the death of relatives and friends makes me particularly hope that the curriculum can give clear, operable steps and methods.” Students (FG3, FG4) from Institution C and FG5 from Institution D focused on the field of interpersonal communication and self-regulation, they said: “I hope the curriculum can teach us how to communicate with sad people and know how to seek external support.” And medical and nursing students (FG2, FG6) from Institutions B and D, based on consideration of future career scenarios, put forward more specific demands: “I especially hope to have scenario simulations so that we can practice communicating with terminally ill patients and comforting family members.”

The views of the teacher group highly coincide with the needs of students and have been deepened from the perspective of professional teaching. Based on their extensive teaching and practical experience, medical ethics instructor T18 (Institution D) emphasized the critical importance of “scenario simulation” for students. They explained that by recreating real situations, students can adapt to complex environments in advance, reduce panic in actual work, and—through repeated practice—improve their ability to communicate with and listen to patients' families, thereby enhancing mutual emotional understanding. Education teacher T11 (Institution C) emphasized that coping strategies in the curriculum must be closely aligned with students' actual experiences. They stated that only by ensuring “practical and operable” strategies can students translate learned knowledge into problem-solving abilities, thereby realizing the practical value of death education.

Focus on Mental Health Education: Research findings indicate that death education should prioritize students' psychological well-being. Psychology teacher T2 (Institution A) noted that many students have expressed fears and anxieties surrounding death, and therefore suggested that “death education curricula should introduce professional teachers of psychology” to systematically instruct methods for coping with

death anxiety, emotional regulation, and bereavement. Teacher T3 (Institution A) further emphasized that death education must extend beyond imparting knowledge and cultural perspectives to provide comprehensive emotional and psychological support. By integrating mental health education deeply into the curriculum, students can learn to confront anxiety and sorrow enabling death education to "break through the boundaries of traditional theoretical teaching" and truly contribute to developing psychological resilience and facilitating personal growth. T3 also highlighted the importance of helping students recognize available societal resources such as psychological counseling, peer support groups, and art therapy and encouraging them to abandon the misconception that seeking help is shameful.

It is noteworthy that not only psychology instructors but also faculty from other disciplines recognize the significant impact of death education on students' psychological development. Engineering ethics teacher T20 (Institution D), speaking from the perspective of engineering education, emphasized that death education is also highly relevant for students in technical fields. T20 explained that such education not only enables future engineers to incorporate safety and ethical considerations more thoughtfully into product design and service development but also helps them manage life pressures with greater composure and appreciate the present more deeply.Similarly, there appears to be a strong student demand for enhanced psychological support. One student (FG1) expressed a desire for more accessible psychological support resources, emphasizing the importance of receiving timely help when needed. Another student (FG4) conveyed the expectation that through death education, they might achieve deeper self-understanding, cultivate a positive outlook on life, and develop greater emotional resilience and inner strength.

4.2.3.4.2 Sub-theme 2: Curriculum Content Design

In terms of curriculum content design, this study found that a Comprehensive Multi-Disciplinary Perspective, Tiered Curriculum Design, and a Focus on Interactive Modalities are three core elements.

Comprehensive Multi-Disciplinary Perspective: According to the analysis of interview data, whether it is students' learning needs or educators' professional judgment, both point to the necessity of multi-disciplinary integration in death education curricula. First, students strongly call for curricula to break down disciplinary barriers, starting from their own cognition and development needs. A education student (FG1) from Institution A

pointed out: “Death is not a purely medical proposition, it is closely intertwined with all aspects of life. I expect the curriculum to use psychology to analyze grief coping mechanisms and rely on philosophy to explore the ultimate meaning of life.” A medical student (FG2) from Institution B focused on professional practice needs: “In clinical scenarios, ethical choices such as euthanasia and organ donation occur frequently. Mastering ethical knowledge is a prerequisite for making responsible decisions.” Students from multiple institutions jointly suggested that the curriculum should establish a cross-disciplinary knowledge network by integrating perspectives from fields such as sociology, history, and philosophy. This approach would enable them to “examine death from multiple dimensions” and deepen their understanding of life.At the same time, they also particularly emphasized the importance of the cultural perspective: “Understanding the interpretations of death in different countries and cultures helps to cultivate cross-cultural respect and empathy.”

Second, educators have formed a high consensus on the necessity of multi-disciplinary integration. Curriculum Development teacher T1 (Institution A) emphasized: “Single-disciplinary teaching is easy to lead to cognitive one-sidedness. Only by integrating multi-disciplinary resources can we build a comprehensive and three-dimensional framework of death cognition for students.” Clinical ethics teacher T6 (Institution B) added in combination with the characteristics of medical education: “Medical students need to not only learn life support technology, but also use ethics to think about the value of life and use psychology to gain insight into the psychological needs of terminally ill patients to achieve a balance between technology and humanities.”

It is worth noting that new issues brought about by technological development are promoting death education to cross-disciplinary and in-depth expansion. A engineering student (FG3) from Institution C put forward, taking cutting-edge technology as an entry point: “The death proposition after the awakening of artificial intelligence consciousness, the ethical controversy of human cryonics technology, etc., all need us to conduct in-depth discussions from the perspective of the intersection of technology and humanities.” Engineering ethics teacher T20 (Institution D) further pointed out: “Technological progress continues to reshape human cognition boundaries of life and death, and incorporating engineering ethics into the death education system can stimulate students’ in-depth thinking about technology ethics and cultivate forward-looking thinking skills.”

Tiered Curriculum Design: Through in-depth interviews, this study found that death education curricula need to break the homogeneous model and build a tiered teaching system that fits students' diverse characteristics. Education administrators, teachers, and students unanimously believe that individual experiences, professional backgrounds, and value differences lead to significant differentiation in students' cognitive foundations, acceptance levels, and learning needs for death issues. Curriculum design must be dynamically adapted to avoid psychological discomfort caused by a "one-size-fits-all" approach.

In terms of individual experiences, students (FG5, FG6) from Institution D pointed out that those with bereavement experience are more sensitive to death topics, while those lacking relevant experience are prone to avoidance psychology, which promotes personalized learning needs. Teacher T1 (Institution A) emphasized that conducting admission assessments through death attitude scales and interviews is a necessary prerequisite for tiered teaching.

Professional background differences further highlight the importance of tiered teaching. A medical student (FG2) from Institution B proposed that medical majors need to master hospice care technology and ethical norms, requiring the curriculum to provide more professional learning resources. Teacher T6 (Institution B) suggested adopting a grading strategy, such as recommending academic works for medical students and providing popular science documentaries for students of other majors.

The academic stage also affects teaching strategies. Administrator Admin L7 (Province Y) pointed out that freshmen focus on basic cognition and emotional guidance, while senior students can carry out in-depth thinking. Teacher T14 (Institution C) added that tiered design can match students' psychological maturity and meet diverse needs through differentiated learning tasks (such as group discussions and case analysis) to avoid excessive teaching burden or lack of interest.For instance, first-year undergraduates lay emphasis on fundamental comprehension; second and third-year students focus on theoretical construction and skill enhancement; whereas senior students direct their attention to the integration with professional skills or social applications.

Focus on Interactive Modalities: Interviews show that teachers and students unanimously believe that death education needs to build an interactive curriculum system.

This transformation is based on the grasp of college students' cognitive laws - only active participation can deepen the understanding of life and death issues and promote the internalization of values. Just as education teacher T11 (Institution C) and ethics teacher T12 (unspecified focus group affiliation) pointed out: "Activating students' active participation is the key to helping them overcome the fear of death and establish a rational view of life and death."

Based on the interview, interactive curriculum content can be summarized into four core design strategies: (1) Issue-Oriented Content: Driving the collision of views with controversial topics. Teacher T13 (Institution C, curriculum integration) pointed out: "The curriculum should focus on open-ended issues such as 'ethical dilemmas of euthanasia' and 'pros and cons of organ donation' to guide students to start debates from multiple perspectives and deepen understanding in the exchange of ideas." This type of design breaks the shackles of standard answers and cultivates critical thinking. (2) Case Analysis Content: Connecting theory and practice through typical cases. Clinical ethics teacher T6 (Institution B) emphasized: "Real or fictional cases are the best teaching carriers. In the process of analyzing cases, students can not only concretize abstract knowledge, but also expand the boundaries of cognition through experience sharing." (3) Experiential Learning Content: Trigger emotional resonance with immersive activities. Student feedback (unspecified focus group affiliation) corroborates the necessity of this design: "The sharing session made me feel the real power of other people's experiences, which is more touching than just listening to lectures." Teacher T9 (Institution B, medical humanities) further proposed that activities such as role-playing, visits to hospice care institutions, and life story interviews can be used to help students face life issues directly in an immersive experience and achieve a dual sublimation of emotion and cognition. (4) Reflective Writing Content: Using words to promote self-exploration. Psychology teacher T2 (Institution A) believes: "Writing is a medium for in-depth reflection. Propositions such as 'If life is only three months left' and 'The evolution of my cognition of death' can guide students to sort out their inner feelings and build personalized views of life and death." In addition, art therapy teacher T17 (Institution D) specifically proposed that art elements can be integrated into the curriculum, such as death-themed painting creation and film appreciation. This "edutainment" design can not only alleviate students' psychological resistance to serious issues, but also stimulate emotional expression through aesthetic experience and create a safe and inclusive learning atmosphere.

4.2.3.4.3 Sub-theme 3: Curriculum Organization & Arrangement

Integration into Existing Curriculum: The results of the qualitative research show that integrating death education into the existing curriculum system in universities is regarded as a key and pragmatic strategy. The advantage is that it can utilize existing resources, lower the implementation threshold, avoid bringing additional pressure to teachers and students, enable students to naturally contact death issues, and achieve a combination of knowledge and thinking. Teacher T1 pointed out that "curricula such as psychology and sociology themselves contain death-related issues, and systematically sorting out and combining case analysis can achieve the purpose of death education," and students also believe that "this method is easy to accept and will not increase the learning burden." However, this strategy also faces some challenges. Teacher T15 emphasized that "it is difficult to ensure the depth and breadth of teaching content. If it remains superficial, students will find it difficult to understand the meaning of death"; Teacher T19 pointed out that "it is not easy to choose suitable teaching content and methods." Students also reflected that "shallow knowledge lectures cannot stimulate interest."In this regard, administrator Admin L5 proposed deepening the teaching content through methods such as showing documentaries and hosting hospice care experts. Students suggested "increasing the sharing of personal experiences" to encourage active thinking and emotional interaction, thereby compensating for the limitations of integrated teaching and enhancing the implementation of death education.

Establishing Dedicated Elective Courses: Interview findings indicate that offering dedicated elective courses is key to meeting students' personalized learning needs in death education. Psychology teacher T5 emphasized that elective modules allow students with strong interest to explore death-related topics without the resistance common in mandatory courses, thereby improving instructional effectiveness. Using methods like group discussions and life experience workshops, the curriculum can "guide students to actively explore death issues" while fostering autonomous and lifelong learning skills. Students widely agree that "the autonomy of elective courses greatly boosts learning engagement." Philosophy teacher T15 further explained that "elective courses provide students with more ample time and space, which is convenient for them to carry out in-depth thinking around the essence of death and the value of life." Art teacher T17 suggested that elective courses could adopt diversified teaching methods. Through distinctive activities such as "life and death imagery in painting" art creation and end-of-

life story sharing sessions, students may develop a multidimensional understanding of death's complexity.However, this model also faces realistic challenges. Administrator Admin L6 proposed that “there is a risk that the curriculum cannot be opened due to an insufficient number of students selecting the curriculum.” Teacher T13, who studies curriculum integration, emphasized that it “has higher requirements for teacher input and curriculum design.” In this regard, education teacher T11 suggested “incorporating elective courses into the core curriculum of general education and strengthening promotion through case displays and curriculum presentations to enhance attractiveness”; Administrator Admin L3 proposed establishing a collaborative teacher system inside and outside the institution, involving outside professionals—such as hospice care experts and psychology scholars—in teaching, while organizing regular training in death education for in-service teachers. Through these approaches, teacher shortages could be addressed, ensuring high-quality curriculum implementation.

General Education Requirements & Professional Reinforcement: Qualitative research found that due to the differences in the needs of students in different majors for death education, a diversified curriculum model needs to be constructed. Education administrator L7 emphasized that offering general education requirement courses would help all students break down fears and taboos surrounding death and develop a rational view of life and death. Furthermore, given that medical majors deal directly with matters of life and death, their death education should not remain solely at a general level. Instead, differentiated curricula should be designed aligned with clinical needs.Medical teacher T9 confirmed: “Some medical colleges have begun to try to open compulsory courses on hospice care, death care, etc.” However, there are obvious problems with existing compulsory curricula for medical and nursing majors. T6, who is also a medical teacher, pointed out: “The content of many compulsory curricula focuses too much on the technical level, for example, how to carry out end-of-life care and how to handle corpses, while ignoring the needs of students in terms of thoughts and emotions.” Nursing teacher T16 also mentioned: “The current compulsory curricula also need to strengthen the cultivation of students’ humanistic care ability, for example, how to communicate with terminally ill patients and how to comfort patients’ families.” In this regard, education teacher T11 suggested: “On the basis of ensuring technical transmission, attention should be paid to the cultivation of students’ thoughts and emotions, and elective courses such as life and death views and ethics can be added to supplement the compulsory content.” Pharmacy teacher

T10 proposed: “Practical teaching needs to be strengthened, and students should be arranged to intern in hospice care wards.” Administrator Admin L4 also proposed: “Encourage students to participate in hospice care volunteer services to cultivate empathy.” It can be seen that due to the differences in the needs of students in different majors for death education, a diversified curriculum model needs to be constructed. Only by taking into account technology and humanities and combining compulsory and elective courses and theory and practice can the death education needs of all professional students be met.

4.2.3.4.4 Sub-theme 4: Curriculum Assessment & Feedback Mechanism Design

Diverse Assessment Methods: In the qualitative research, teachers and administrators pointed out that traditional exams are difficult to comprehensively assess students’ understanding and internalization of death issues, and it is urgent to design diversified assessment methods. Teacher T13, majoring in curriculum studies, emphasized: “The focus of death education is not on memorizing knowledge, but on guiding students to think about the meaning and value of life, which determines the particularity of assessment methods.” Specifically, sociology teacher T12 proposed that “reflection reports can be written to allow students to reflect on their feelings about death in combination with their life experiences and to test the degree of knowledge internalization;” Pharmacy teacher T7 suggested “organizing group cooperation, discussing death issues and completing reports to examine knowledge mastery and collaborative expression ability;” Nursing teacher T8, aimed at medical and nursing students, advocated “designing scenario simulation cases, such as simulating communication with terminally ill patients and comforting family members to assess actual coping ability;” Psychology counseling teacher T2 believed that “a self-assessment mechanism should be introduced to guide students to self-reflect on learning gains and shortcomings.” Furthermore, administrator Admin L3 (Province J, education management) emphasized the need to construct a multi-perspective evaluation system that integrates teacher assessments of students, student evaluations of the curriculum and their own learning, as well as peer evaluations, in order to comprehensively understand both student progress and the strengths and weaknesses of the course.

Establishing Timely Feedback Mechanisms: The research shows that it is not enough to just have comprehensive assessment methods. More importantly, assessment results should be used to improve the teaching effectiveness of death education curricula in universities and promote student growth. Psychology counseling teacher T2 emphasized

from the perspective of student development: “We need a timely feedback mechanism to let students quickly understand their performance, knowing what they do well and what needs improvement.” Education administrator Admin L3 pointed out from the dimension of education development: “Only by adjusting teaching strategies in a timely manner can the teaching effect be guaranteed. This feedback mechanism requires not only the participation of teachers, but also the active participation of students to form a virtuous interaction.” In specific implementation, teacher T3 suggested using interactive tools such as the Super Star Learning APP and Rain Classroom to facilitate classroom Q&A, voting, and online discussions. These tools enable instructors to quickly identify students’ emotional changes, learning difficulties, or cognitive misunderstandings, and “adjust teaching strategies in a timely manner.” Teacher T20 suggested that “sojump webpages be used to regularly send questionnaires to students to understand their evaluations and questions about the curriculum, and teachers should promptly analyze the questionnaire results and give feedback.” For medical majors, teacher T10 suggested that “for medical majors, scales such as DAP-R, CDS, and FATCOD-B can be used to assess changes in their attitudes towards death, etc.” Teacher T2 further emphasized the importance of recognizing the limitations of scale-based assessments, cautioning against overreliance on their results. He recommended combining them with other evaluation methods to form a comprehensive judgment, which should be interpreted by professional psychological counselors to avoid misinterpretation. Additionally, he highlighted the need to consider the timing of the test to ensure the validity of the results.

Continuous Improvement & Dynamic Adjustment: The interview results show that the design and implementation of the death education curriculum framework in universities needs to be continuously improved and dynamically adjusted. Education administrator Admin L1 emphasized: “We must continuously collect feedback and then make dynamic adjustments based on the feedback,” pointing out that the curriculum system needs to be continuously optimized with teaching practices and student feedback to keep pace with the times and student needs. Academic administrator Admin L5 also proposed that “society is constantly developing, and students’ needs are constantly changing. We must keep pace with the changes in student needs as teaching practices deepen in order to make the curriculum more meaningful.” In specific practice, adjustments can be made in many aspects. Teacher T13, a specialist in curriculum integration, emphasized the need to continuously update course content based on student

feedback and integrate the latest research findings and case studies. Additionally, teaching methods should be adjusted flexibly, incorporating innovative approaches such as the flipped classroom model to stimulate student engagement. He also stressed the importance of providing diversified teaching resources and enhancing teachers' professional capabilities. In addition, establishing incentive mechanisms is the key to ensuring the smooth progress of adjustments. Positive psychology teacher T9 suggested establishing an effective incentive mechanism to encourage active participation in curriculum evaluation and feedback from both teachers and students. He recommended that valuable contributions should be recognized through appropriate rewards and commendations. Furthermore, instructors who make outstanding contributions to curriculum development should receive support in areas such as professional promotion and project funding.

4.2.4 Key Findings of the Qualitative Study

This study, centered on the construction of a death education curriculum framework in Mainland China, has yielded rich and in-depth findings at several key levels through interviews with teachers and students and related analyses, providing an important basis for further in-depth exploration of death education.

Teachers' and Students' Perceptions and Attitudes Toward Death Education: Teachers generally recognize that death education and life education are closely related. Some teachers regard it as a key component of life education, emphasizing its value in giving back to the meaning of life and cultivating students' reverence for life. They also acknowledge that death education has unique value and can solve specific needs such as campus psychological crises and professional ethics. However, in teaching practice, teachers adopt a prudent attitude, worrying about the impact of teaching on students' psychology. They expect to receive clear policy guidance, pay attention to parents' attitudes towards death education, and lack confidence in their own professional abilities. Students' perceptions of death education are influenced by a variety of factors, including family, media, religious and scientific cognition. Due to differences in disciplinary thinking patterns and life experiences, students in different majors show clear group-differentiated characteristics in their cognition of death education. Before receiving formal death education, most students have cognitive limitations due to the lack of scientific guidance, simply understanding death as "complete termination" or "mysterious event," and there are

also acceptance barriers at the emotional level. Emotionally, students are both curious and avoidant about the topic of death, and there is a contradictory psychology of rationality and emotion, but they generally have an open-ended willingness to discuss death and the willingness of self - exploration and reflection.

Students' Needs for Death Education Curriculum: In terms of curriculum form, students desire to deeply explore death issues with immersive learning methods such as VR technology and role-playing, and need psychological safety barriers such as setting up a "safe word" mechanism. They prefer to present curriculum content in lightweight and entertaining forms such as short videos, animations, and board games, and also strongly demand collaborative discussions, such as group debates and case sharing sessions, to alleviate psychological pressure and promote knowledge construction through peer interaction. Curriculum content requirements are diversified and are significantly affected by disciplinary background, professional development expectations, and personal experience. Students in different disciplines have different needs for the deconstruction of death science knowledge in the cognitive dimension and a strong desire to break cultural taboos. In the psychological dimension, students urgently need techniques for intervening in death anxiety and methods for managing grief emotions, and the needs of different professions vary. In the practical dimension, medical and nursing students focus on Practical Skills in Hospice Care, and non-medical students pay more attention to Crisis Response and Handling Capabilities in daily life. In the value dimension, students expect to construct a pragmatically valuable system for recognizing the significance of death and achieve Reconstruction of Life Meaning Through a Death-Conscious Perspective. Students' needs for death education curriculum resources are concentrated in the construction of teachers' professional capabilities and the development of teaching resources. They expect teachers to have cross-disciplinary knowledge integration, crisis intervention practical skills, and the ability to guide value neutrality. Students in different disciplines have different focuses on teachers' abilities, and they also hope to establish a standardized teacher certification system. In terms of teaching resources, students' needs cover multimodal forms of film and television, text, interactive, and expert resources to meet the needs of immersive and self-directed inquiry learning.

Barriers to Implementation death education curriculum: Cultural disciplinary inertia has a significant impact on death education, forming a discourse taboo system. In

teaching, teachers will unconsciously conduct language self-censorship, replacing sensitive expressions with euphemisms, resulting in missing key information in teaching content and making death education curricula often reduced to “shadow curricula” of life education. Traditional family concepts influence students’ cognition and expression of death issues through intergenerational cultural transmission, and parents’ attitudes also restrict the depth of teachers’ discussion of death topics in teaching. Institutional Blockages have become an important barrier to promoting death education. The structural absence of Absence of Policy Support Systems has made universities lack a clear basis for implementation when carrying out death education. They face difficulties in class hour arrangements, teacher allocation, and curriculum resource guarantees. At the same time, the lack of a teacher training system leads to poor curriculum implementation results. There is an Inadequate Resource Allocation Mechanism, a cross-departmental collaboration framework has not yet been formed, and universities face difficulties in integrating social resources and it is difficult to build a standardized and sustainable curriculum system. Social public opinion has long bound death issues with negative labels, causing universities to regard death education as highly sensitive teaching content. Under public opinion pressure, universities have adopted Defensive Teaching Strategies, proactively shallowing discussion depth, avoiding core issues, and excessively avoiding risks in practical teaching. This not only fails to alleviate public opinion questions, but instead strengthens society’s cognitive biases about death education, hindering students from establishing rational cognition.

Generating Design Considerations for death education Curriculum Framework: The design philosophy of the framework is guided by students’ actual needs, integrates scientific knowledge and emotional guidance, helps students overcome death anxiety, establishes a positive view of life and death, and strengthens the professional sense of mission of medical and nursing students. Attention is paid to practical transformation ability, and experiential teaching methods are used to transform theoretical knowledge into practical strategies. A mental health support system is built to provide students with emotional support and cultivate humanistic care awareness. The curriculum content design emphasizes multi-disciplinary integration, integrates multiple field perspectives, breaks disciplinary limitations, and forms a three-dimensional knowledge system. Content is designed hierarchically according to students’ grades, majors, and psychological maturity to achieve personalized teaching. Through interactive modalities such as issue debates, case analyses, experiential learning, and reflective writing, knowledge internalization and

emotional resonance are promoted. The curriculum organization and arrangement adopts systematic embedding and tiered adaptation strategies, integrating death education into existing curriculum systems and utilizing the advantages of disciplinary intersections to reduce implementation resistance. Dedicated elective courses are offered to meet students' personalized needs, and interactive modalities are used to deepen learning. A "General Education Requirements & Professional Reinforcement" dual-track mechanism is established. While popularizing death education general knowledge curricula, curricula are provided for medical and nursing and other majors to strengthen their technical practice and humanistic care awareness. The Curriculum Assessment & Feedback Mechanism Design focuses on dynamic optimization and student growth guidance. Diversified assessment methods are used to replace traditional exams, focusing on examining the degree of students' internalization of death issues and emotional growth. Immediate feedback channels are established, and teaching strategies are quickly adjusted based on students' cognitive and emotional changes. A continuous improvement mechanism is emphasized, and curriculum content and resources are dynamically updated in combination with social needs and student feedback. Incentive mechanisms are used to promote full participation, improve teaching quality, and help students build critical thinking, psychological resilience, and practical skills to face death directly.

4.2.5 Realization of Research Objectives through Qualitative Research Results

The qualitative findings from this study effectively address multiple research objectives (ROs) outlined in this dissertation. As systematically summarized in Table 4-3, the analysis of interview and focus group data directly corresponds to and illuminates key aspects of ROs 1, 2, 3, 5, and 6.

Specifically, the diverse curricular needs expressed by students—spanning teaching formats, content, faculty, and resources—directly fulfill RO1 (Explore specific educational needs and gaps). Furthermore, the distinct perceptions and attitudes captured from both faculty and students, such as teachers' cautious stance due to policy constraints and students' cognitive-emotional conflicts shaped by familial and cultural factors, provide rich, contextually-grounded insights pertinent to RO2 (Understand stakeholder perceptions, attitudes, and cultural considerations).

The identified barriers—cultural (e.g., discourse taboos), institutional (e.g., lack of policy support), and societal (e.g., negative public opinion)—comprehensively respond to RO3 (Investigate barriers and challenges to implementation). Moreover, the derived curriculum design principles, which emphasize student-centeredness, interdisciplinary integration, and hierarchical content adaptation, contribute directly to RO5 (Propose a culturally sensitive framework) and indirectly inform RO6 (Recommend effective implementation strategies) by grounding proposed strategies in empirical needs and practical constraints.

While the qualitative results do not directly contain cross-cultural curriculum comparisons (RO4) or empirical impact assessments (RO7), the uncovered needs, barriers, and design considerations establish a necessary foundation and contextual understanding for those objectives, which are explicitly addressed in Chapter 2 and Chapter 5, respectively.

Table 4-3:
Realization of Research Objectives through Qualitative Research Results

Research Objectives	Qualitative Research Results	Elaboration on Correspondence	Corresponding Section
Objective 1：Explore specific educational needs and gaps	Curriculum needs: Students' diverse demands regarding teaching formats, content, faculty, and resources.	Directly responds to Objective 1's exploration of gaps in educational needs.	4.2.2.2
Objective 2：Understand stakeholder perceptions, attitudes, and cultural considerations	1.Teachers recognize the value of death education but adopt a cautious attitude due to policy constraints and insufficient competence; 2. Students exhibit cognitive limitations and emotional contradictions influenced by multiple factors.	Directly responds to Objective 2's analysis of stakeholders' perceptions and attitudes, providing a basis for curriculum optimization and strategy formulation.	4.2.2.1
Objective 3：Investigate barriers and challenges to implementation	Cultural: Discourse taboos and restrictive family values; 2. Institutional: Lack of policies and insufficient resources; 3. Public opinion: Negative orientation forcing defensive teaching.	Comprehensively presents cultural, institutional, and social barriers, offering theoretical support for formulating strategies to overcome obstacles, which precisely corresponds to Objective 3.	4.2.2.3

Objective 5&6：Propose a culturally sensitive framework；Recommend effective implementation strategies	Design ideas: Student needs-oriented, emphasizing interdisciplinary integration, hierarchical teaching, etc.	The design ideas based on curriculum needs directly support the framework construction in Objective 5, enhancing the feasibility of the proposal through practical needs; The discussion on curriculum framework design needs and ideas indirectly addresses the strategy formulation in Objective 6.	4.2.2.4
Objective 4：OReview and analyze existing curricula for improvement	No direct relevant content; explicit comparative analysis for Objective 4 is more prominent in Chapter 2.	Enhanced reference retrospection has been incorporated into the discussion section of Chapter 4.	NONE
Objective 7：Assess curriculum impact	No direct relevant content, but the identified needs, barriers, and design ideas lay a foundation for subsequent research.	Though not directly corresponding, preliminary findings provide research directions and logical groundwork for impact assessment in Objective 7.	NONE

4.3 Quantitative Data Analysis, Results, and Summary

This section provides background information on participant characteristics and does not directly correspond to a specific research question but supports contextual interpretation of subsequent findings

4.3.1 Descriptive Analysis of Demographic Variables

Descriptive analysis of the sample characteristics reveals key demographic patterns. As shown in Table 4-4, the sample consists mainly of young adults: 50.4% are aged 18–24, followed by 25–34 (18.2%) and 35–44 (15.5%). By role, students comprise 50.9%, faculty and staff 43.2%, and administrative personnel 5.9%. Most students (402 individuals) are 18–24 years old, consistent with typical university age. Faculty and staff are primarily aged 25–34 (36.7%), 35–44 (31.6%), and 45–54 (26.8%), reflecting a concentration of early and mid-career professionals. Female respondents slightly exceed males (57.4% vs. 42.6%). Regarding disciplines, Healthcare/Medicine is most common (29.6%), followed by Education (14.7%), Humanities (14.3%), Social Sciences (14.2%), and both Natural

Sciences and Engineering (13.7% each). These characteristics offer a clear demographic basis for designing and interpreting death education studies.

Table 4- 4:
Descriptive Statistics of Basic Information

Name	Option	Frequency (n)	Percentage (%)	Cumulative Percentage (%)
Age Group	18 Years Old and Below	3	0.4	0.4
	18~24 Years Old	402	50.4	50.8
	25~34 Years Old	145	18.2	68.9
	35~44 Years Old	124	15.5	84.5
	45~54 Years Old	105	13.2	97.6
	55 Years Old and Above	19	2.4	100.0
Gender	Male	340	42.6	42.6
	Female	458	57.4	100.0
Academic Field	Humanities	114	14.3	14.3
	Social Sciences	113	14.2	28.4
	Natural Sciences	109	13.7	42.1
	Healthcare/Medicine	236	29.6	71.7
	Engineering	109	13.7	85.3
	Education	117	14.7	100.0
Current Role	Student	406	50.9	50.9
	Faculty/Staff	345	43.2	94.1
	Administrative Personnel	47	5.9	100.0

4.3.2 Descriptive Statistics of Questionnaire Scales

This section addresses Research Question 3 concerning stakeholders' perceptions of the importance of death education.

To understand the distribution of respondents' scores on each dimension of the questionnaire, Table 4-5 presents the descriptive statistics of the questionnaire scales.

Table 4-5:
Descriptive Statistics of Questionnaire Scales

Dimension	Item	N	Minimum	Maximum	Mean	Standard Deviation
Perceived Importance of Death Education	5. Death education is important for all university students.	798	1	5	1.46	0.681
	6. Death education should be included as part of the core curriculum in higher education institutions.	798	1	5	1.63	0.789
	7. Death education is particularly important for students in healthcare-related fields.	798	1	5	1.46	0.698
	8. Learning about death and dying can help students develop better psychological resilience.	798	1	5	1.51	0.718
	9. What is your overall attitude towards the inclusion of death education in university curricula?	798	1	5	1.61	0.850
Attitudes Towards the Inclusion of Death Education	10. Do you think that integrating death education into the curriculum could benefit students in terms of their personal growth?	798	1	4	1.56	0.837
	11. Would you be comfortable discussing topics related to death (such as grief, dying, and end-of-life care) in an academic context?	798	1	4	1.55	0.845
Barriers to Implementing Death	12. Cultural sensitivities or taboos related to death are a	798	1	5	1.97	0.885

Education	significant barrier to implementing death education.					
	13. Lack of trained faculty members is a barrier to including death education in the curriculum.	798	1	5	1.99	0.891
	14. There are insufficient institutional resources (e.g., funding, teaching materials) to support death education programs.	798	1	5	1.99	0.859
	15. There is a general lack of interest or awareness among students and faculty regarding the importance of death education.	798	1	5	2.17	0.928
	16. University policies and regulations are not supportive of introducing death education into the curriculum.	798	1	5	2.46	0.999
Knowledge of Death Education and Related Topics	17. Death Education	798	1	4	2.59	0.906
	18. Grief and Bereavement	798	1	4	2.23	0.850
	19. End-of-Life Care	798	1	4	2.43	0.887
	20. Death Rituals and Cultural Practices	798	1	4	2.57	0.883
Psychological and Professional Benefits of Death Education	21. Death education can help students cope with personal experiences of grief and loss.	798	1	5	1.89	0.829
	22. Death	7	1	5	1.82	0.807

	education is important for preparing students in healthcare professions to manage death-related issues in their practice.	98				
	23. Death education can help students develop empathy and emotional intelligence in their future professional roles.	798	1	5	1.87	0.778
	24. Death education can enhance students' ability to engage in conversations about death with patients, families, and colleagues in a professional setting.	798	1	5	1.83	0.741

Based on the table above, the survey scales all employed a 5-point Likert scale. The score range for all items is between 1 and 5, with 1 representing "Strongly Agree" and 5 representing "Strongly Disagree." In the dimension of "Perceived Importance of Death Education," there were a total of four items, and the mean scores were all relatively low, specifically 1.46 ("Death education is important for all university students"), 1.63 ("Death education should be included as part of the core curriculum in higher education institutions"), 1.46 ("Death education is particularly important for students in healthcare-related fields"), and 1.53 ("Learning about death and dying can help students develop better psychological resilience"). The standard deviations ranged from 0.681 to 0.789. This indicates that most respondents gave high levels of endorsement on this dimension, and there was a high degree of consistency among the items.

Secondly, in the dimension of "Attitudes Towards the Inclusion of Death Education," there were a total of three items. Although the scale items used different score ranges, the overall mean scores were between 1.55 and 1.61, with standard deviations approximately between 0.851 and 0.861. This demonstrates that respondents generally held a more positive attitude, believing that including death education in university curricula is

beneficial and that such inclusion can bring positive impacts to students in terms of personal growth.

Thirdly, in the dimension of “Barriers to Implementing Death Education,” there were a total of five items, with mean scores ranging from 1.97 to 2.46, and standard deviations between 0.859 and 0.999. Among them, the mean score for “University policies and regulations are not supportive of introducing death education into the curriculum” was the highest (2.46), indicating that the respondents considered the lack of policy support to be the biggest barrier; the mean scores for “Cultural sensitivities or taboos related to death are a significant barrier to implementing death education,” “Lack of trained faculty members,” and “There are insufficient institutional resources to support death education programs” were all close to 2.0, while the mean score for “There is a general lack of interest or awareness among students and faculty regarding the importance of death education” was slightly higher (2.17). This reflects that, although barriers existed in all items, the barrier in terms of policy support was particularly prominent. At the same time, respondents also paid high attention to the lack of faculty and resources and cultural taboos in the implementation process.

In the dimension of “Knowledge of Death Education and Related Topics,” there were a total of four items. Their mean scores were 2.59 (Death Education), 2.23 (Grief and Bereavement), 2.43 (End-of-Life Care), and 2.57 (Death Rituals and Cultural Practices), and the standard deviations were all between 0.850 and 0.906. Overall, the scores on this dimension were at a moderate level, showing that the respondents’ knowledge mastery in death education and related topics had not yet reached a higher level, among which knowledge of “Grief and Bereavement” was relatively weaker.

Finally, in the dimension of “Psychological and Professional Benefits of Death Education,” there are four items. The mean scores are 1.89 (Helping to cope with grief and loss), 1.82 (Helping healthcare professional students deal with death-related issues), 1.87 (Cultivating empathy and emotional intelligence in future professional roles) and 1.83 (Enhancing the ability to engage in conversations about death with patients, families, and colleagues), and the standard deviations were between 0.741 and 0.829, respectively. These data show that the respondents generally believe that death education has significant benefits in terms of psychological support and the improvement of professional ability. The scores among the items were also relatively close, reflecting a high degree of consistency.

In summary, among all the dimensions, the dimensions of “Perceived Importance of Death Education” and “Psychological and Professional Benefits of Death Education” had lower scores, indicating that respondents held relatively consistent and positive views on these aspects. The dimension of “Barriers to Implementing Death Education” had relatively higher scores, reflecting the existence of certain obstacles at the policy, resource, and cultural levels. The dimension of “Knowledge of Death Education and Related Topics” had moderate scores, suggesting that the popularization of relevant knowledge still needs to be strengthened. These detailed descriptive statistical data provide a solid quantitative basis for subsequent discussions of problems and strategies for death education in practical application.

4.3.3 Questionnaire Reliability and Validity Analysis

4.3.3.1 Reliability Analysis

Reliability analysis is the first step in questionnaire evaluation and a key standard for assessing quality. Reliability indicates the stability and consistency of results when the same instrument is applied under consistent conditions. The most widely used measure is Cronbach’s Alpha, which estimates internal consistency. Developed by Cronbach in 1951, it remains the predominant method in social science research. Generally, an α coefficient should exceed 0.8. Values between 0.7 and 0.8 are acceptable. For subscales, α should be above 0.7, with 0.6–0.7 considered acceptable. If α falls below 0.6, scale revision is recommended. Thus, a questionnaire with Cronbach’s Alpha above 0.6 is deemed reliable. The reliability analysis results for this study are presented in Table 4-6.

The confirmatory factor analysis tested a second-order measurement model in which five first-order constructs, Perceived Importance of Death Education, Attitudes Toward the Inclusion of Death Education, Barriers to Implementing Death Education, Knowledge of Death Education and Related Topics, and Psychological and Professional Benefits of Death Education loaded onto a higher-order construct labeled Overall Perception of Death Education. The construct names are consistently used across reliability analysis, CFA results, and the measurement model presented in Figure 4-2.

Table 4-6 :
Reliability Statistics

Questionnaire	Cronbach's Alpha	Number of Items
Overall Perception of Death Education	0.922	20
Perceived Importance of Death Education	0.910	4
Attitudes Towards the Inclusion of Death Education	0.973	3
Barriers to Implementing Death Education	0.844	5
Knowledge of Death Education and Related Topics	0.859	4
Psychological and Professional Benefits of Death Education	0.924	4

The overall questionnaire shows a Cronbach's Alpha of 0.922, indicating excellent internal consistency. All subscales—Perceived Importance of Death Education, Attitudes Towards Inclusion of Death Education, Barriers to Implementation, Knowledge of Death Education, and Psychological and Professional Benefits—also exceed 0.800, demonstrating high reliability across each dimension. These results confirm that the questionnaire is internally consistent and measurement outcomes are reliable.

4.3.3.2 Validity Analysis

Validity analysis is essential in empirical research. Researchers often lack resources to develop new tools and therefore use established instruments such as questionnaires. This approach saves time and cost while also helping to evaluate cross-study compatibility. It is therefore essential to verify the tool's validity, accuracy of application, and interpretation within the specific research context. For questionnaires, content validity and construct validity are commonly assessed. Content validity indicates the relevance and coherence of items with target variables (Almanasreh et al., 2019). The questionnaire in this study was developed through a literature review establishing variable relationships, and item phrasing was refined via a pre-survey. Thus, the scale exhibits sound content validity.This study focuses on construct validity—the ability of items to accurately measure the intended constructs (Grimm & Widaman, 2012). Exploratory Factor Analysis (EFA) was used to verify the scale's construct validity.

Generally, to perform exploratory factor analysis, two conditions need to be met to test the feasibility of factor analysis (Loewen & Gonulal, 2015): 1, KMO > 0.7; 2, Bartlett's test of sphericity is significant (Sig. < 0.05).

First, to analyze whether the research data are suitable for factor analysis, exploratory factor analysis was performed on the scale using SPSS, and the KMO and Bartlett's test of sphericity were performed. The results are shown in the table 4-7.

Table 4-7 :
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.898
Bartlett's Test of Sphericity	Approx. Chi-Square	13095.323
	df	190
	Sig.	0.000

From the results, it can be seen that the KMO value is 0.898, which is greater than 0.7, and the questionnaire passed the Bartlett's test of sphericity ($p < 0.05$), which meets the prerequisite requirements for factor analysis. This indicates that the research data are suitable for factor analysis.

Then, it can be seen from the results of the total variance explained in the following table that, based on eigenvalues greater than 1, the cumulative percentage of the first five factors in the initial eigenvalue solution reached 77.141%, which is greater than 60%, indicating that the five extracted factors can better reflect the main variation of the data, and the overall explanatory power reached 77.141%, showing higher factor explanatory efficacy and obvious factor distribution. As the number of components increases, the explanatory contribution of subsequent factors gradually weakens, which indicates that the first five factors have basically covered the main information in the data, and there is no excessive common method variance issue. Therefore, the data structure of this study is relatively reasonable, providing a solid data foundation for subsequent empirical analysis.

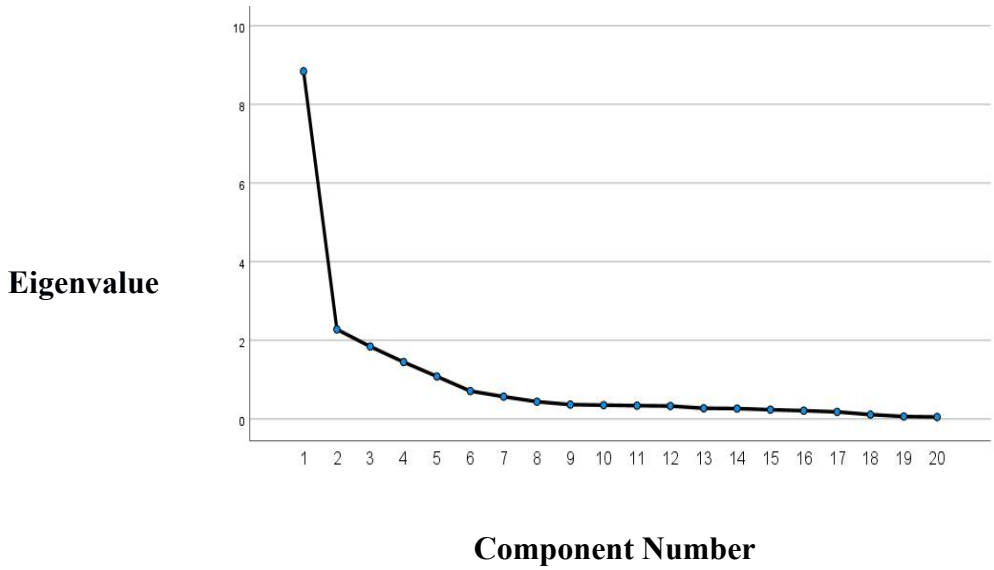
Table 4-8:
Total Variance Explained

Com-ponent	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.507	42.533	42.533	8.507	42.533	42.533	3.352	16.761	16.761
2	2.315	11.574	54.107	2.315	11.574	54.107	3.193	15.965	32.726
3	1.987	9.936	64.042	1.987	9.936	64.042	3.008	15.038	47.764
4	1.494	7.470	71.512	1.494	7.470	71.512	2.966	14.829	62.593
5	1.126	5.629	77.141	1.126	5.629	77.141	2.910	14.548	77.141
6	.747	3.733	80.874						
7	.571	2.855	83.730						
8	.444	2.218	85.947						
9	.392	1.958	87.905						
10	.368	1.839	89.744						
11	.340	1.698	91.442						
12	.313	1.565	93.007						
13	.274	1.372	94.379						
14	.250	1.250	95.629						
15	.231	1.157	96.787						
16	.200	.998	97.785						
17	.179	.897	98.682						
18	.120	.602	99.284						
19	.090	.449	99.733						
20	.053	.267	100.000						

Extraction Method: Principal Component Analysis.

A visual inspection of the factor scree plot provides further support for the number of factors to be extracted. As shown in Figure 4-1, the rate of change in eigenvalues decreases after the fifth factor, and the eigenvalues are less than 1. Therefore, extracting the first five principal factors is appropriate.

Figure 4- 1:
Scree Plot



Finally, the data were rotated using the Varimax rotation method to identify the correspondence between factors and research items. The table4-9 above shows the information extraction status of factors for the research items, as well as the correspondence between factors and research items. As can be seen from the table, the communality values corresponding to all research items are higher than 0.5, which means that there is a strong correlation between research items and factors, and that the factors can effectively extract information.

Table 4-9:
Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
5. Death education is important for all university students.	0.841				
7. Death education is particularly important for students in healthcare-related fields.	0.826				
6. Death education should be included as part of the core curriculum in higher education institutions.	0.802				
8. Learning about death and dying can help students develop better psychological resilience.	0.737				
21. Death education can help students cope with personal experiences of grief and loss.		0.807			
24. Death education can enhance students' ability to engage in conversations about death with patients, families, and colleagues in a professional setting.		0.804			
23. Death education can help students develop empathy and emotional intelligence in their future professional roles.		0.800			
22. Death education is important for preparing students in healthcare professions to manage death-related issues in their practice.		0.783			
15. There is a general lack of interest or awareness among students and faculty regarding the importance of death education.			0.784		
16. University policies and regulations are not supportive of introducing death education into the curriculum.			0.768		
14. There are insufficient institutional resources (e.g., funding, teaching materials) to support death education programs.			0.750		
13. Lack of trained faculty members is a barrier to including death education in the curriculum.			0.648		

12. Cultural sensitivities or taboos related to death are a significant barrier to implementing death education.			0.599		
10. Do you think that integrating death education into the curriculum could benefit students in terms of their personal growth?				0.938	
9. What is your overall attitude towards the inclusion of death education in university curricula?				0.928	
11. Would you be comfortable discussing topics related to death (such as grief, dying, and end-of-life care) in an academic context?				0.917	
19. End-of-Life Care					0.842
20. Death Rituals and Cultural Practices					0.840
18. Grief and Bereavement					0.805
17.Death Education					0.748

Extraction Method: Principal Component Analysis.

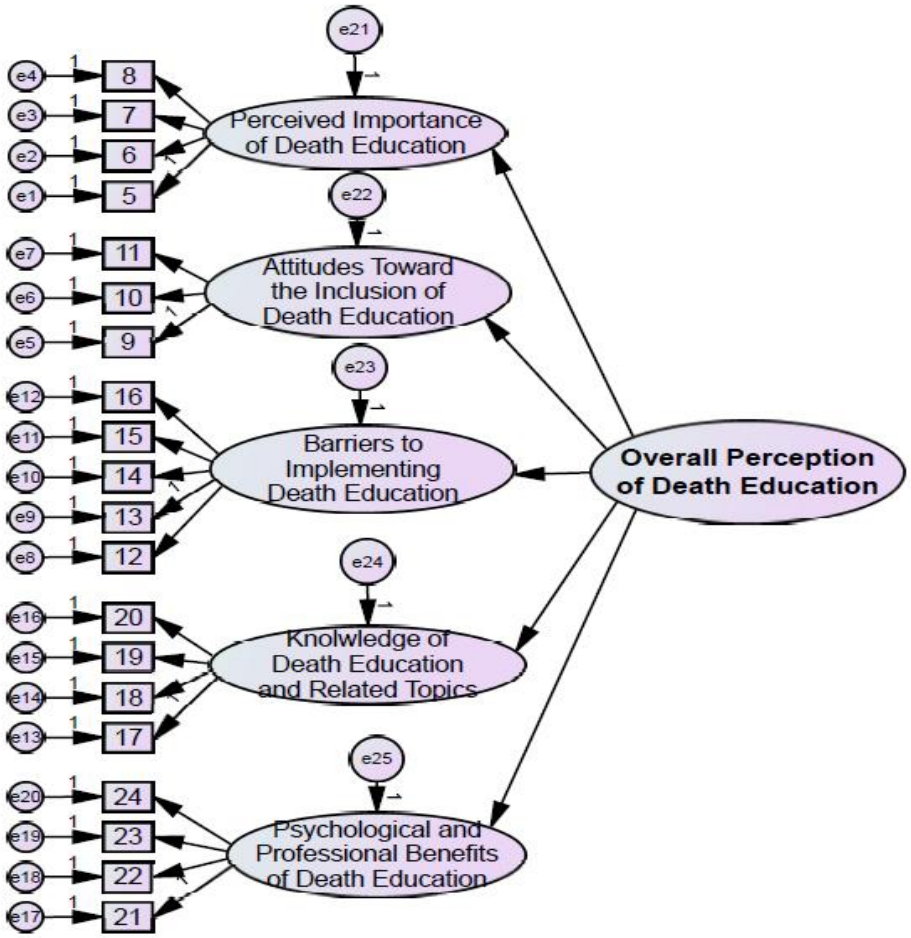
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

4.3.3.3 Confirmatory Factor Analysis

To examine the convergent validity of the items, confirmatory factor analysis (CFA) was conducted to assess the goodness-of-fit between the measurement data and the theoretical framework. As shown in Figure 4-2, the hypothesized model illustrates the factor structure and item loadings.

Figure 4- 2:
Confirmatory Factor Analysis Model



As shown in the table 4-10, the CMIN/DF is 2.249, the GFI, AGFI, NFI, TLI, IFI, and CFI all meet the standard of 0.9 or above, and the RMSEA is 0.040, which is less than 0.08. Most of the fit indices meet the standards for structural equation modeling research. Therefore, it can be considered that this model has a good fit.

Table 4-10:
Model Fit Indices

Fit Index	Acceptable Range	Measured Value
CMIN		296.822
DF		132
CMIN/DF	<3	2.249
GFI	>0.9	0.965
AGFI	>0.9	0.945
RMSEA	<0.08	0.040
IFI	>0.9	0.988

NFI	>0.9	0.978
TLI(NNFI)	>0.9	0.982
CFI	>0.9	0.988

As shown in the table 4-11, the standardized factor loadings for all items are greater than 0.5, and all residuals are positive and significant, indicating no Heywood cases. The composite reliability (CR) values are all greater than 0.7, and the average variance extracted (AVE) values are all greater than or equal to 0.5, meeting the criteria for convergent validity. Given that the model fit also falls within the acceptable range, all items were retained for subsequent analyses.

Table 4-11:
Confirmatory Factor Analysis Results

		Path	Estimate	S.E.	C.R.	P	CR	AVE
Q5	<---	Perceived Importance of Death Education	1.000					
Q6	<---	Perceived Importance of Death Education	1.132	0.034	33.376	***	0.921	0745
Q7	<---	Perceived Importance of Death Education	0.980	0.031	31.393	***		
Q8	<---	Perceived Importance of Death Education	1.077	0.044	24.466	***		
Q9	<---	Attitudes Towards the Inclusion of Death Education	1.000					
Q10	<---	Attitudes Towards the Inclusion of Death Education	0.999	0.013	74.651	***	0.979	0.940
Q11	<---	Attitudes Towards the Inclusion of Death Education	1.004	0.013	75.370	***		
Q12	<---	Barriers to Implementing Death Education	1.000					
Q13	<---	Barriers to Implementing Death Education	1.079	0.044	24.554	***		
Q14	<---	Barriers to Implementing Death Education	0.920	0.043	21.208	***	0.825	0.500
Q15	<---	Barriers to Implementing Death Education	0.863	0.048	18.079	***		
Q16	<---	Barriers to Implementing Death Education	0.614	0.053	11.569	***		
Q17	<---	Knowledge of Death Education and Related Topics	1.000					
Q18	<---	Knowledge of Death Education and Related	0.906	0.049	18.513	***	0.8487	0.5849
Q19	<---	Knowledge of Death	1.046	0.051	20.496	***		

		Education and Related Topics						
Q20	<---	Knowledge of Death Education and Related Topics	1.127	0.053	21.406	***		
Q21	<---	Psychological and Professional Benefits of Death Education	1.000					
Q22	<---	Psychological and Professional Benefits of Death Education	0.935	0.030	30.732	***		
							0.9285	0.7653
Q23	<---	Psychological and Professional Benefits of Death Education	1.057	0.028	37.583	***		
Q24	<---	Psychological and Professional Benefits of Death Education	0.925	0.027	33.668	***		

4.3.4 Group Differences Related to Research Questions

Difference analyses were conducted only for variables directly aligned with the research questions to determine whether significant variations existed across academic roles and disciplinary contexts

The following analyses address Research Questions 5 and 6 by examining group differences across demographic and disciplinary variables.

4.3.4.1 Importance Differences by Gender

Table 4-12:
Independent Samples Test of Perceived Importance of Death Education by Gender

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig.(2-tailed)	Mean Difference	Standard Error Difference	Lower	Upper
Significance	Assuming equal variances	23.1614	0.0000	1.4353	796.0000	0.1516	0.0659	0.0459	-0.0242	0.1559
	Not assuming equal variances			1.3852	622.2343	0.1665	0.0659	0.0475	-0.0275	0.1592

From the statistical results in the table, Levene's test for homogeneity of variance yielded F=23.1614, p<0.001, indicating that the variances in the perceived importance of death education are not homogeneous across genders. Therefore, based on the t-test results

"equal variances not assumed" (t=1.3852, df=622.2343, p=0.1665), the *p*-value is greater than 0.05, the calculated effect size was trivial (Cohen's d = 0.11), indicating negligible practical difference in perceived importance of death education between males and females, implying that there is no significant difference in the perceived importance of death education scores between males and females. In other words, given the non-homogeneity of variance, gender does not have a statistically significant effect on the "importance" scores.

4.3.4.2 Attitude Differences by Age Group

Table 4-13:
ANOVA Results for Attitudes towards Death Education by Age Group

ANOVA

Attitudes					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12.126	5	2.425	3.644	0.003
Within Groups	527.061	792	0.665		
Total	539.187	797			

A significant difference in attitudes toward death education was observed across age groups, F(5, 792) = 3.64, p = .003. However, the effect size was small (η^2 = .023), suggesting that while age differences exist statistically, the magnitude of variation is modest in practical terms. This finding indicates that attitudes toward death education vary by age and should be considered when designing instructional or promotional strategies. An age-stratified and developmentally appropriate approach to death education is therefore recommended. For instance, course content and teaching methods should be tailored to younger and older groups to better address the diverse needs of different age cohorts.

4.3.4.3 Differences in Understanding by Student Discipline

Table 4-14:
ANOVA Results for Understanding of Death Education by Student Discipline

ANOVA

Understanding					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.132	5	0.626	1.035	0.397
Within Groups	242.122	400	0.605		
Total	245.253	405			

Table 4-15:
Multiple Comparisons of Understanding of Death Education by Student Discipline (LSD)

Multiple Comparisons

Dependent Variable: Understanding

LSD

(I) Discipline	(J) Discipline	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval of the Difference	
					Lower	Upper
Humanities	Social Sciences	.07766	.14386	.590	-.2052	.3605
	Natural Sciences	.02354	.14652	.872	-.2645	.3116
	Health/Medicine	-.14973	.12337	.226	-.3923	.0928
	Engineering	-.15239	.14652	.299	-.4404	.1357
	Education	-.05932	.14324	.679	-.3409	.2223
Social Sciences	Humanities	-.07766	.14386	.590	-.3605	.2052
	Natural Sciences	-.05412	.14712	.713	-.3434	.2351
	Health/Medicine	-.22739	.12409	.068	-.4713	.0166
	Engineering	-.23004	.14712	.119	-.5193	.0592
	Education	-.13698	.14386	.342	-.4198	.1458
Natural Sciences	Humanities	-.02354	.14652	.872	-.3116	.2645
	Social Sciences	.05412	.14712	.713	-.2351	.3434
	Health/Medicine	-.17327	.12716	.174	-.4233	.0767
	Engineering	-.17593	.14973	.241	-.4703	.1184
	Education	-.08286	.14652	.572	-.3709	.2052
Health/Medicine	Humanities	.14973	.12337	.226	-.0928	.3923
	Social Sciences	.22739	.12409	.068	-.0166	.4713
	Natural Sciences	.17327	.12716	.174	-.0767	.4233
	Engineering	-.00266	.12716	.983	-.2527	.2473
	Education	.09041	.12337	.464	-.1521	.3329
Engineering	Humanities	.15239	.14652	.299	-.1357	.4404
	Social Sciences	.23004	.14712	.119	-.0592	.5193
	Natural Sciences	.17593	.14973	.241	-.1184	.4703
	Health/Medicine	.00266	.12716	.983	-.2473	.2527
	Education	.09306	.14652	.526	-.1950	.3811
Education	Humanities	.05932	.14324	.679	-.2223	.3409
	Social Sciences	.13698	.14386	.342	-.1458	.4198
	Natural Sciences	.08286	.14652	.572	-.2052	.3709
	Health/Medicine	-.09041	.12337	.464	-.3329	.1521
	Engineering	-.09306	.14652	.526	-.3811	.1950

The one-way ANOVA results ($F = 1.035$, $p = 0.397$) indicated no statistically significant difference in the understanding of death education among students from different disciplines, suggesting a relatively consistent level of comprehension across academic backgrounds. LSD post-hoc comparisons further confirmed the absence of significant differences between disciplines.

For instance, the mean difference between Humanities and Social Sciences was 0.07766 (p = 0.590), and that between Humanities and Natural Sciences was 0.02354 (p = 0.872). Similarly, differences between Humanities and Health/Medicine (-0.14973, p = 0.226), Engineering (-0.15239, p = 0.299), and Education (-0.05932, p = 0.679) were not significant. Comparisons involving Social Sciences with Health/Medicine (-0.22739, p = 0.068), Engineering (-0.23004, p = 0.119), and Education (-0.13698, p = 0.342) also showed no significance. None of the 95% confidence intervals excluded zero, further supporting the lack of significant disciplinary differences in understanding.

In summary, ANOVA and multiple comparison results indicate that students across disciplines show consistent understanding of death education, and academic discipline does not significantly influence students' comprehension. Theoretically, this suggests cognition and understanding of death are influenced more by general cultural background, public education environment, and individual experiences than by differences in professional fields. Therefore, when designing death education courses, schools need not over-differentiate students' disciplinary backgrounds and can leverage interdisciplinary resources to jointly develop a comprehensive death education framework. Furthermore, given considerable individual differences, future research and practice should focus more on bridging emotional and cognitive gaps through personalized teaching, tutoring, and experiential learning, rather than relying on disciplinary divisions.

4.3.4.4 Differences in Perceived Benefits among Teachers of Different Disciplines

Table 4-16:
ANOVA Results for Perceived Benefits of Death Education by Discipline

ANOVA

Benefits					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.638	5	.328	.886	.490
Within Groups	142.763	386	.370		
Total	144.402	391			

Table 4-17:

Multiple Comparisons of Perceived Benefits of Death Education by Discipline

Multiple Comparisons

Dependent Variable: Benefits

LSD

(I) Discipline	(J) Discipline	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval of the Difference	
					Lower	Upper
Humanities	Social Sciences	-.04091	.11597	.724	-.2689	.1871
	Natural Sciences	-.00455	.11597	.969	-.2326	.2235
	Health/Medicine	-.00343	.09984	.973	-.1997	.1929
	Engineering	.00000	.11597	1.000	-.2280	.2280
	Education	.16951	.11446	.139	-.0555	.3946
Social Sciences	Humanities	.04091	.11597	.724	-.1871	.2689
	Natural Sciences	.03636	.11597	.754	-.1916	.2644
	Health/Medicine	.03748	.09984	.708	-.1588	.2338
	Engineering	.04091	.11597	.724	-.1871	.2689
	Education	.21042	.11446	.067	-.0146	.4355
Natural Sciences	Humanities	.00455	.11597	.969	-.2235	.2326
	Social Sciences	-.03636	.11597	.754	-.2644	.1916
	Health/Medicine	.00112	.09984	.991	-.1952	.1974
	Engineering	.00455	.11597	.969	-.2235	.2326
	Education	.17406	.11446	.129	-.0510	.3991
Health/Medicine	Humanities	.00343	.09984	.973	-.1929	.1997
	Social Sciences	-.03748	.09984	.708	-.2338	.1588
	Natural Sciences	-.00112	.09984	.991	-.1974	.1952
	Engineering	.00343	.09984	.973	-.1929	.1997
	Education	.17294	.09809	.079	-.0199	.3658
Engineering	Humanities	.00000	.11597	1.000	-.2280	.2280
	Social Sciences	-.04091	.11597	.724	-.2689	.1871
	Natural Sciences	-.00455	.11597	.969	-.2326	.2235
	Health/Medicine	-.00343	.09984	.973	-.1997	.1929
	Education	.16951	.11446	.139	-.0555	.3946
Education	Humanities	-.16951	.11446	.139	-.3946	.0555
	Social Sciences	-.21042	.11446	.067	-.4355	.0146
	Natural Sciences	-.17406	.11446	.129	-.3991	.0510
	Health/Medicine	-.17294	.09809	.079	-.3658	.0199
	Engineering	-.16951	.11446	.139	-.3946	.0555

The results of the one-way ANOVA (F=0.886, p=0.490) indicate that there are no statistically significant differences in the perceived benefits of death education among teachers from different disciplines. This is further validated by the LSD post-hoc test, as no pairwise comparison among the six disciplines—Humanities, Social Sciences, Natural Sciences, Healthcare/Medicine, Engineering, and Education—reached statistical significance (p-values generally ranging from 0.05 to 1.0).

For example, the mean difference between Humanities and Social Sciences is -0.04091 (SE=0.11597, p=0.724, 95% CI [-0.2689, 0.1871]), indicating no significant difference in how teachers in these two disciplines perceive the benefits of death education. Similarly, the mean difference between Humanities and Natural Sciences is only -0.00455 (p=0.969), and the difference between Humanities and Healthcare/Medicine is -0.00343 (p=0.973), showing minimal deviations. Furthermore, the comparison between Humanities and Engineering yields a mean difference of 0.000 (p=1.000), while the difference with Education is 0.16951 (p=0.139), neither of which reached statistical significance.

Comparisons between other disciplines, such as the mean differences between Social Sciences and Natural Sciences, Healthcare/Medicine, Engineering, and Education, also did not reveal statistically significant differences.

Overall, these comparison results indicate high consistency in the perceived benefits of death education among teachers from different disciplines, showing no significant intergroup differences. This finding suggests that although disciplines may emphasize varied teaching methods and theoretical priorities, teachers share similar views on death education's positive effects in enhancing students' psychological resilience, professional communication, and emotional development. This supports interdisciplinary collaboration in promoting death education. Therefore, future curriculum promotion need not overemphasize disciplinary distinctions, as teachers maintain a relatively consistent foundational understanding. Based on this, teacher understanding and teaching ability can be enhanced through unified or interdisciplinary programs.

4.3.4.5 Differences in Knowledge Level by Current Role

Table 4- 18:
ANOVA Results for Knowledge Level by Current Role

ANOVA

Knowledge Level					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.750	2	9.375	17.904	.000
Within Groups	416.291	795	.524		
Total	435.041	797			

Table 4- 19:
Multiple Comparisons of Knowledge Level by Current Role (LSD)

Multiple Comparisons

Dependent Variable: Knowledge Level
LSD

(I) Current Role	(J) Current Role	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval of the Difference	
					Lower	Upper
Student	Faculty member	-.29241*	.05299	.000	-.3964	-.1884
	Administrative Staff	-.38607*	.11149	.001	-.6049	-.1672
Faculty member	Student	.29241*	.05299	.000	.1884	.3964
	Administrative Staff	-.09366	.11251	.405	-.3145	.1272
Administrative Staff	Student	.38607*	.11149	.001	.1672	.6049
	Faculty member	.09366	.11251	.405	-.1272	.3145
Student	Faculty member	-.29241*	.05299	.000	-.3964	-.1884
	Administrative Staff	-.38607*	.11149	.001	-.6049	-.1672
Faculty member	Student	.29241*	.05299	.000	.1884	.3964
	Administrative Staff	-.09366	.11251	.405	-.3145	.1272

*. The mean difference is significant at the 0.05 level.

According to one-way ANOVA results, a significant difference exists in Knowledge Level across Current Roles ($F=17.904$, $p<0.001$). LSD post-hoc comparisons showed a mean difference of -0.2924 ($p<0.001$) between students and faculty, and -0.3861 ($p=0.001$) between students and administrative staff. These results indicate that students have significantly lower Knowledge Level in death education compared to faculty and staff. No significant difference was found between faculty and administrative staff ($p=0.405$), suggesting similar knowledge levels between these groups. In summary, these differences reflect gaps in information and knowledge acquisition among roles, and offer targeted guidance for improving death education programs.

4.3.5 Key Findings of the Quantitative Study

4.3.5.1 In-depth Analysis of Questionnaire Scale Results

Findings for Objective 1&5： Knowledge Gaps and Curriculum Design Implications in Death Education

Quantitative analysis of the mastery of death education knowledge shows that the average score of respondents across the four knowledge items ranges from 2.23 to 2.59 (on a 4-point scale), which is generally at a moderate level. Specifically:

Grief and Bereavement (M = 2.23, SD = 0.850) received the lowest score, significantly lower than other dimensions ($p < .01$). When compared with the highest-scoring dimension, Basic Concepts of Death Education (M = 2.59, SD = 0.906), the difference reflects a small-to-moderate practical effect (Cohen's $d \approx 0.41$), indicating a meaningful gap in respondents' practical knowledge related to grief management and bereavement support.

Scores for End-of-Life Care (M = 2.43, SD = 0.887) and Death Rituals and Cultural Practices (M = 2.57, SD = 0.883) were moderate, suggesting that understanding of cross-cultural death-related issues remains limited and requires further strengthening.

Basic Concepts of Death Education (M = 2.59, SD = 0.906) obtained the highest score, yet it still did not reach the "good" level (≥ 3 points), indicating overall room for improvement in foundational knowledge.

These findings directly respond to the objective of identifying knowledge and skill gaps (Objective 1). The observed small-to-moderate effect size for the Grief and Bereavement dimension provides empirical justification for prioritizing this area in curriculum redesign under Objective 5.

Findings for Objective 2：Findings for Objective 2: Stakeholders' Perceptions, Attitudes, and cultural considerations of Death Education

Dimension of Perceptions and Attitudes: Perceived Importance: The average scores of the four items range from 1.46 to 1.63 (on a 5-point scale, with 1 = Strongly Agree). Among them, "death education is particularly important for students in healthcare-related fields" (M = 1.46, SD = 0.698) and "death education should be included as part of the core curriculum in higher education institutions" (M = 1.63, SD = 0.789) scored the highest. One-sample t-tests indicated that all items significantly deviated from the neutral midpoint ($p < .001$). Effect size analysis revealed extremely large practical effects (Cohen's d = 2.21 and 1.74, respectively), demonstrating that respondents' agreement was not only statistically significant but also substantively strong. These findings indicate

overwhelming recognition of the necessity of death education, particularly within healthcare-related disciplines.

Attitudinal Acceptance: The average scores of the three items range from 1.55 to 1.61. “Being comfortable discussing topics related to death in an academic context” ($M = 1.55$, $SD = 0.845$) and “Integrating death education into the curriculum could benefit students’ personal growth” ($M = 1.56$, $SD = 0.837$) showed similarly strong endorsement. One-sample t-tests confirmed significant deviation from neutrality ($p < .001$), with very large effect sizes (Cohen’s $d \approx 1.72$ for both items). These results indicate a robust and practically meaningful openness toward incorporating death education into higher education curricula.

Dimension of Perceived Benefits: The average scores of the four items range from 1.82 to 1.89. Among them, “death education is important for preparing students in healthcare professions to manage death-related issues in their practice” ($M = 1.82$, $SD = 0.807$) and “death education can help students cope with personal experiences of grief and loss” ($M = 1.89$, $SD = 0.829$) scored the highest. One-sample t-tests indicated that these scores significantly deviated from the neutral midpoint ($p < .001$). Effect size analysis revealed very large practical effects (Cohen’s $d = 1.46$ and 1.34, respectively), demonstrating strong substantive agreement among respondents.

These findings indicate that stakeholders not only statistically endorse death education but do so with substantial practical magnitude, particularly in relation to psychological adjustment and professional preparedness. The results directly address Objective 2, confirming a robust and meaningful recognition of the value of death education among teachers and students.

Findings for Objective 3: Barriers and Challenges in Implementing Death Education.

Among the five items measuring implementation barriers, “insufficient university policy support” ($M = 2.46$, $SD = 0.999$) scored the highest (on a 5-point scale, with higher values indicating stronger barriers) and was significantly higher than other factors ($p < .001$), emerging as the primary institutional bottleneck. When compared against the neutral midpoint (3), the effect size was moderate (Cohen’s $d = -0.54$), indicating that

although policy support represents the most prominent barrier relative to other factors, the overall perception of institutional resistance remains moderate rather than severe.

"Cultural taboos" (M = 1.97, SD = 0.885), "shortage of faculty" (M = 1.99, SD = 0.891), and "insufficient resources" (M = 1.99, SD = 0.859) demonstrated large negative deviations from the midpoint (Cohen's d ranging from -1.13 to -1.18), suggesting that while these factors are acknowledged, they are not perceived as overwhelmingly strong barriers at the aggregate level.

Although "insufficient awareness" (M = 2.17, SD = 0.928) was not the highest-ranked obstacle, the effect size remained large (Cohen's d = -0.89), and over 30% of respondents identified lack of interest as a potential implementation challenge.

These findings directly correspond to Objective 3, which sought to investigate institutional and cultural barriers. Importantly, the magnitude analysis indicates that policy-level reinforcement and faculty capacity-building should be prioritized, even though the overall barrier intensity is moderate rather than extreme.

4.3.5.2 Comprehensive Interpretation of Differential Analysis Results

Findings for Objective 2: Gender Differences in Perceptions of Death Education

The results indicate no statistically significant difference in the perceived importance of death education between genders, t(622.23) = 1.39, p = .167, with mean scores of 1.50 for males and 1.48 for females. The calculated effect size was trivial (Cohen's d = 0.11), indicating negligible practical difference between groups.

These findings suggest that gender does not meaningfully influence university students' perceptions of the importance of death education. In relation to Objective 2 and Objective 5, this supports the conclusion that curriculum design does not require gender-specific differentiation. A unified curriculum framework can therefore be implemented across genders to comprehensively enhance students' understanding of death education without compromising inclusivity or effectiveness.

Findings for Objective 2 & 6: Age-related Variations in Attitudes towards Death Education

Data analysis indicates statistically significant variation in attitudes toward death education across age groups, $F(5, 792) = 3.64$, $p = .003$. However, effect size analysis revealed a small magnitude of difference ($\eta^2 = .023$), suggesting that while age-related variation exists, its practical impact is modest.

A chi-square test further indicated a statistically significant association between age group and attitudes ($\chi^2 = 615.36$, $df = 40$, $p < .001$). However, given that a substantial proportion of cells had expected counts below five, this result should be interpreted with caution.

In relation to Objective 2 and Objective 6, these findings suggest that although age differences are statistically detectable, they are not substantively large. Therefore, rather than requiring fundamentally different curricula, age-sensitive pedagogical adjustments such as contextual examples, depth of discussion, and experiential activities may be sufficient to accommodate developmental variation while maintaining a unified curriculum framework.

Findings for Objective 5: Disciplinary Similarities in Death Education Cognition

Surveys on students from different disciplines reveal no statistically significant overall difference in students' understanding of death education across disciplinary fields, $F = 1.04$, $p = .397$. Effect size analysis indicates a negligible magnitude of difference ($\eta^2 \approx .001$), suggesting that disciplinary background explains virtually none of the variance in knowledge levels. Post hoc comparisons using the LSD method further confirmed that mean differences between disciplines did not reach statistical significance.

Similarly, there was no significant difference in teachers' perceptions of the benefits of death education across disciplines, $F = 0.89$, $p = .490$, with a negligible effect size ($\eta^2 \approx .002$). These findings correspond to Objective 5, indicating that disciplinary major has minimal influence on cognitive recognition or perceived value of death education.

Given both the absence of statistical significance and the trivial magnitude of effect sizes, the results strongly support the feasibility of implementing a universal death

education curriculum applicable to students from all academic backgrounds, without the need for discipline-specific differentiation at this stage.

Findings for Objective 1: Role-based Disparities in Death Education Awareness

The study shows that there are significant differences in the level of understanding of death education between different roles ($F = 17.904$, $p < 0.001$). The level of understanding among students is significantly lower than that of faculty members and administrative staff, with the latter two being relatively close ($p = 0.405 > 0.05$). This result is highly relevant to Objective 1, fully reflecting that university students have a weak foundation in death education and significant knowledge gaps. This highlights the urgency of strengthening death education for university students, which requires filling students' knowledge gaps and improving their cognitive level of death education through optimizing curriculum design and enriching teaching content.

4.3.5.3 Realization of Research Objectives through Quantitative Research Results

To demonstrate how the research objectives were addressed through empirical findings, the correspondences between the quantitative results and each objective are systematically summarized in Table 4-20. The quantitative and qualitative components of this study mutually reinforce each other, with quantitative evidence enhancing the scientific rigor and comprehensiveness of the conclusions. On one hand, the quantitative data corroborate key qualitative insights concerning policy barriers and cognitive attitudes; on the other hand, analyses of group differences such as the effects of age and professional role on attitudes provide measurable support for qualitative observations. Together, they form an integrated and multidimensional analytical framework, as detailed in the table below.

Table 4-20:
Realization of Research Objectives through Quantitative Research Results

Research Objectives	Quantitative Research Results and Core Data Support	Elaboration on Correspondence
Objective 1: Explore specific educational needs and gaps	Knowledge mastery dimension: The score for "Grief and Bereavement" knowledge is the lowest (M=2.23), and the average score for basic concepts of death education is only 2.59 (on a 4-point scale). 2. Role differences: Students'	Quantitative data accurately identify knowledge gaps in areas such as "Grief and Bereavement" through specific scores, and reveal the weak foundation of death education among college students through role differences. This directly responds to the need of Objective 1 to "identify knowledge

	cognition is significantly lower than that of faculty and staff.	and skill gaps" and provides a clear direction for optimizing curriculum content.
Objective 2: Understand stakeholder perceptions, attitudes, and cultural considerations	Perceived importance scores range from 1.46 to 1.63 (on a 5-point scale, leaning towards "Strongly Agree"), and perceived benefit scores range from 1.82 to 1.89. 2. Role/age differences: Students' understanding is lower than that of faculty and staff.	Quantitative data confirm the positive attitudes of most respondents towards death education through specific scores, consistent with qualitative research conclusions. Meanwhile, it supplements group differences in terms of role (students vs. faculty/staff) and age, deepening the multi-dimensional analysis of cognitive attitudes in Objective 2.
Objective 3: Investigate barriers and challenges to implementation	Insufficient policy support (M=2.46) and cultural taboos (M=1.97) are the top two barriers.	Quantitative data convert the "policy needs" mentioned by teachers in qualitative research into statistical evidence (insufficient policy support scores the highest) and clarify the degree of hindrance from cultural taboos. The prioritization enhances the credibility of the conclusions of Objective 3.
Objective 5: Propose a culturally sensitive framework	Knowledge weaknesses (e.g., "Grief and Bereavement" M=2.23, "Cross-cultural Death Customs" M=2.57) guide module design, with additional content such as "grief management" and "cross-cultural death customs". 2. No significant differences in cognition among students of different disciplines, suggesting a universal curriculum.	Specific data on knowledge weaknesses support the design of framework content. Meanwhile, based on the analysis of group commonalities (no disciplinary differences), a universal curriculum plan for all students is proposed, which specifically addresses needs and barriers and fulfills the core requirement of Objective 5 to "construct a localized framework".
Objective 6: Recommend effective implementation strategies	Role differences (students vs. faculty/staff) drive hierarchical teaching; age differences guide the integration of digital and traditional teaching.	Quantitative results directly derive strategies such as "hierarchical teaching" and "targeted promotion". For example, different teaching contents are designed according to the cognitive differences between students and faculty/staff, and multiple teaching methods are integrated based on age characteristics, which precisely correspond to the need of Objective 6 to "explore effective strategies".
Objectives 4 & 7: Review and analyze existing curricula for improvement; Assess curriculum impact	No direct relevant data; other research methods are required (Objective 4 is prominent in Chapter 2's curriculum comparison, and Objective 7 is achieved in Chapter 5's intervention experiment).	This illustrates the limitations of quantitative research, clarifying that Objectives 4 and 7 need to be supplemented by methods such as qualitative research, comparative analysis, and intervention experiments, thus improving the integrity of the research methodology system.

Relationship between Objective 1 and quantitative results: The differential analysis result that "students' understanding of death education is far lower than that of faculty, staff, and administrative personnel" is highly relevant to Objective 1, fully reflecting that college students have a weak foundation in death education and significant knowledge gaps. The quantitative result of weak knowledge in "Grief and Bereavement"

reveals respondents' knowledge gaps with specific data, providing empirical basis for "identifying educational needs and knowledge gaps" in Objective 1 and clarifying the priority of curriculum content optimization.

Relationship between Objective 2 and quantitative results: Quantitative research confirms qualitative findings that "teachers and students widely recognize the importance of death education" and reveals through data how age and role affect cognitive attitudes. For instance, the result that students' understanding is lower than that of faculty refines analysis of stakeholder attitude differences and enriches the depth of Objective 2.

Relationship between Objective 3 and quantitative results: Quantitative research converts the "policy needs" mentioned by teachers in qualitative research into a "most prominent barrier" in statistical terms. The objectivity of the conclusion is enhanced through data weighting (e.g., the high frequency of insufficient policy support), providing key support for "analyzing institutional barriers" in Objective 3.

Relationship between Objectives 5, 6 and quantitative results: Objective 5: Based on quantitative data on knowledge weaknesses (e.g., "Grief and Bereavement" M=2.23), the curriculum framework design can be supplemented with core content modules in a targeted manner, promoting localization adaptation. Meanwhile, the analysis result that there is no significant difference in cognition among students of different disciplines provides a basis for setting up a universal curriculum to improve students' cognitive level as a whole, helping to construct a death education framework that meets the needs of higher education in Mainland China.

Objective 6: Differential analysis can directly lead to the "hierarchical teaching" strategy (e.g., designing courses for different age groups), making strategy formulation data-driven and improving the operability of Objective 6.

Relationship between Objectives 4, 7 and quantitative results: Quantitative research mainly focuses on describing the local current situation and does not involve Objective 4 ("comparison of domestic and foreign curriculum frameworks") or Objective 7 ("impact assessment"). Among them, Objective 4 completes the cross-regional curriculum framework comparison through literature analysis in Chapter 2, and Objective 7 realizes the curriculum effect evaluation through intervention experiments in Chapter 5. The collaboration of multiple methods ensures the integrity of the research.

4.3.6 Summary

In summary, the qualitative and quantitative findings presented in this chapter comprehensively address the research objectives outlined in Chapter 1. The identification of educational needs and gaps (Objective 1) emerged prominently through thematic codes such as "lack of structured content" and "student emotional unpreparedness." Stakeholders' perceptions and culturally rooted attitudes (Objective 2) were revealed through interviews and supported by survey results, confirming the influence of Confucian and Buddhist perspectives. Barriers to implementation (Objective 3), including institutional inertia and cultural taboos, were consistently highlighted across data sources. While the review of existing curricula was elaborated in Chapter 2, the interpretation of participants' responses here supports the need for adaptation and improvement (Objective 4). Additionally, the empirical insights lay the groundwork for the development of a culturally responsive framework (Objective 5) and suggest viable strategies for integration (Objective 6), further expanded in the next chapter. Finally, the quasi-experimental data analysis provides clear evidence of the curriculum's impact on students' psychological well-being, cultural competence, and professional preparedness (Objective 7), validating the proposed model's relevance and applicability.

4.4 Chapter Summary

This chapter establishes a foundation for localized death education research using mixed methods: Qualitative data from educator interviews and student focus groups reveal four core themes—educators' attitudes are limited by policy, culture, and competence; student needs vary in format, content, and resources; implementation barriers include cultural discipline, institutional obstacles, and public opinion; and curriculum design requires holistic redesign of objectives, content, delivery, and evaluation. Quantitatively, inadequate policy support is the main barrier, student cognition is lower than that of faculty, age affects attitudes more than discipline, etc.—strengthening the curriculum's adaptability across groups.

The integration of both research paradigms creates a coherent thread: qualitative insights into participants' experiences and quantitative data on group characteristics together reveal the current state of death education. Evidence of policy barriers, along with international experience, offers a cross-cultural adaptive reference, supporting the

curriculum framework both methodologically and practically. In summary, these findings and comparisons provide an empirical foundation for constructing a comprehensive curriculum framework including goal setting, content organization, implementation strategies, and effect evaluation.

CHAPTER 5:

CONCLUSIONS, IMPLICATIONS, LIMITATIONS, AND RECOMMENDATIONS

5.1 Introduction

Building on the comprehensive findings presented in Chapter 4, this chapter transitions from analysis to application by detailing the design and implementation of a culturally sensitive death education curriculum framework for higher education in Mainland China. The empirical insights gathered — spanning educational needs, stakeholder perceptions, implementation barriers, and the observed impact of the pilot curriculum—directly inform the structure and content of the proposed framework. Each component of the redesigned curriculum aligns with the research objectives established in Chapter 1, ensuring that theoretical foundations and data-driven needs are coherently translated into practice. In doing so, this chapter aims not only to propose a feasible and contextually relevant curriculum model but also to offer practical strategies for its integration, guided by evidence and grounded in cultural appropriateness.

5.2 Discussion by Research Question

This study integrates qualitative and quantitative research methods to conduct an in-depth analysis of the current status of death education in higher education institutions in Mainland China. The results are closely linked to the research objectives and also echo and supplement relevant discussions in the literature review.

5.2.1 RQ1 and RQ2: Exploration of Educational Needs and Gaps

In qualitative research, students' feedback on demands for diversified teaching formats, interdisciplinary content, and professional faculty is mutually corroborated by

quantitative data—such as the lowest score in "Grief and Bereavement" knowledge (M=2.23) and the significantly lower cognition level among students compared to faculty and staff (difference = -0.292, $p<0.001$). This precise positioning of the specific educational needs and gaps in death education provides a basis combining subjective and objective evidence for curriculum optimization.

5.2.2 RQ3 – 4: Perceptions & Cultural Considerations

Qualitative research reveals the complex attitudes of teachers who recognize the value of death education but are constrained by policies and their own capabilities and students—who have cognitive limitations. Quantitative research confirms the universality of positive attitudes through rating data and expands the research depth by analyzing differences across age and role dimensions. Together, they deepen the understanding of the perceptions, attitudes, and cultural considerations of students, faculty, and administrators towards the inclusion of death education in the curriculum.

Beyond descriptive endorsement, the strong recognition of death education particularly among healthcare-related students can be interpreted through the lens of emerging professional identity formation. For students preparing for careers in medicine and allied health professions, death is not an abstract philosophical topic but an anticipated professional reality. Their support for integrating death education into the curriculum reflects an early negotiation of their future roles as caregivers responsible for end-of-life communication, emotional regulation, and ethical decision-making.

In this sense, students' positive attitudes are not merely expressions of agreement but indicators of anticipatory professional socialization. Death education functions as a developmental mechanism that supports identity consolidation, emotional resilience, and role readiness. Within the Mainland Chinese cultural context where death discourse is traditionally avoided this openness may also reflect a generational shift toward greater psychological transparency and professional pragmatism.

5.2.3 RQ5 – 6: Barriers

Qualitative research dissects barriers at the cultural, institutional, and societal levels, while quantitative research clarifies the priority of barriers with data such as insufficient policy support (M=2.46) and cultural taboos (M=1.97). Their combination provides strong support for investigating the barriers and challenges that hinder the integration and implementation of death education.

In the Mainland Chinese higher education context, curriculum implementation is also shaped by the framework of Ideological and Political Education (*Kezheng Sizu*), which emphasizes the integration of moral values, political orientation, and social responsibility across all academic disciplines. While this framework aims to strengthen value education, it may inadvertently constrain the introduction of death education due to sensitivities surrounding existential themes, mortality discourse, and perceived ideological ambiguity. Without explicit alignment to *Kezheng Sizu* objectives, death education may be viewed as marginal, non-essential, or administratively risky.

At the same time, *Kezheng Sizu* may also function as a potential facilitator rather than solely a barrier. When framed around values such as respect for life, social responsibility, professional ethics, and humanistic care, death education can be positioned as complementary to ideological and moral education goals. The absence of explicit policy guidance linking death education to *Kezheng Sizu* principles therefore represents a structural gap that limits institutional uptake, rather than an inherent incompatibility. Addressing this alignment explicitly may enhance the legitimacy and scalability of death education within Chinese higher education institutions.

5.2.4 RQ9 – 12: Framework and Implementation Strategies

The integration of curriculum design ideas from qualitative research with quantitative data on knowledge weaknesses and conclusions of no disciplinary differences in cognition promotes the construction of a culturally sensitive educational framework tailored for higher education in Mainland China and the establishment of universal courses. It also explores and recommends effective strategies such as hierarchical teaching for implementing and integrating death education, enhancing the feasibility and practicality of the proposals.

5.2.5 RQ13–14: Experimental Impact

Research Questions 13 and 14 examined the impact of participation in the structured death education curriculum on students' psychological well-being, coping competence, cultural understanding, and professional preparedness. The quasi-experimental pre-test and post-test findings indicate statistically significant improvements across key dimensions measured by the DAP-R, CDS, and FATCOD-B scales, suggesting that structured death education can meaningfully influence students' attitudes and coping capacities.

The observed reduction in death anxiety and increase in neutral acceptance reflect a shift from avoidance-based responses toward a more balanced and cognitively integrated understanding of mortality. This aligns with thanatological theory, which posits that structured exposure, reflection, and guided discussion can reduce existential fear and promote adaptive meaning-making (Wong et al., 1994). The increase in coping competence further suggests that students developed greater psychological readiness to engage with death-related situations, supporting the theoretical assumption that coping ability can be strengthened through experiential and reflective learning.

The findings are consistent with international research demonstrating that death education interventions improve emotional resilience and professional attitudes toward end-of-life care (Phan et al., 2024; Wass, 2004). However, the present study contributes uniquely by situating these effects within the Mainland Chinese cultural context, where death remains a socially sensitive and often avoided topic. The significant pre–post differences indicate that even within a cultural environment characterized by death-related taboos, structured educational intervention can facilitate constructive cognitive and emotional shifts.

In addition, improvements observed in the FATCOD-B dimensions suggest enhanced professional preparedness among medical students. Increased comfort in communication with dying individuals and recognition of the importance of family involvement reflect a strengthening of humanistic care values. These outcomes resonate with constructivist learning theory, which emphasizes that experiential activities, dialogue,

and reflective exercises enable learners to reconstruct existing belief systems and develop deeper professional identity formation.

Importantly, the integration of quantitative pre–post results with post-intervention qualitative interviews provides triangulated evidence of impact. Interview data revealed students' increased openness in discussing death, greater empathy toward bereaved individuals, and improved confidence in handling end-of-life scenarios. This convergence of statistical and experiential findings strengthens the internal validity of the intervention's demonstrated effects.

Overall, the experimental findings suggest that death education, when designed within a culturally sensitive and pedagogically structured framework, can produce measurable psychological and professional benefits. The results support the proposition that death education should not be viewed solely as theoretical knowledge transmission but as a transformative educational experience contributing to holistic personal development and professional competency.

Although statistically significant improvements were observed across several DAP-R dimensions, the magnitude and speed of change varied between subscales. In particular, the Neutral Acceptance dimension demonstrated more pronounced improvement compared to Escape Acceptance. This pattern may reflect the differential psychological depth of these constructs. Neutral Acceptance primarily involves cognitive reframing recognizing death as a natural and inevitable part of life which can be influenced relatively quickly through structured educational exposure and reflective discussion.

In contrast, Escape Acceptance reflects a more complex existential orientation, often associated with deeply internalized beliefs about suffering, relief, and life meaning. Such attitudes are shaped by long-standing cultural narratives, personal experiences, and emotional coping mechanisms. In the Mainland Chinese cultural context—where death discourse is traditionally avoided and often linked to taboo beliefs—shifts in deeply rooted existential attitudes may require longer-term intervention beyond a single course exposure. Therefore, the slower change observed in Escape Acceptance likely reflects the greater

psychological and cultural depth of this construct rather than limitations in curriculum effectiveness.

Beyond statistical improvement, the effectiveness of the curriculum may be explained through several interacting mechanisms. First, structured exposure to death-related themes through guided dialogue and experiential activities likely reduced avoidance tendencies by increasing cognitive familiarity, thereby facilitating movement toward neutral acceptance as conceptualized in thanatological theory. Second, the incorporation of reflective discussion and narrative processing may have promoted meaning reconstruction processes, enabling students to cognitively reorganize previously avoided death-related beliefs. Third, immersive VR simulations may have enhanced experiential engagement, fostering embodied emotional processing and strengthening coping confidence through simulated mastery experiences. These mechanisms collectively suggest that the curriculum functioned not merely as an informational intervention, but as a structured cognitive–affective restructuring process.

5.2.6 Comparison to Literature

The findings of this study both converge with and extend existing scholarship on death education across diverse cultural contexts. International literature consistently emphasizes that structured death education enhances death literacy, reduces anxiety, and fosters professional competence (Wass, 2004; Phan et al., 2024). The present study corroborates these findings, demonstrating statistically significant improvements in attitudes toward death, coping competence, and professional preparedness following curriculum intervention.

In relation to educational needs and knowledge gaps (RQ1–RQ2), the finding that students demonstrated relatively low baseline knowledge in areas such as grief and bereavement aligns with prior studies indicating insufficient systematic exposure to death-related content in higher education (Y. Kim et al., 2016). Similar gaps have been documented in Asian contexts where cultural taboos surrounding death limit open discourse. However, this study contributes new empirical evidence from Mainland China, where structured empirical research on death education remains comparatively limited. The

quantitative identification of specific knowledge deficiencies provides more precise localization of educational gaps than many prior descriptive studies.

Regarding perceptions and cultural considerations (RQ3–RQ4), the findings reflect patterns observed in both Western and East Asian literature. Internationally, students and educators often recognize the value of death education while expressing uncertainty about institutional readiness or pedagogical capacity. This ambivalence parallels the present study's qualitative findings that faculty members support the concept of death education but perceive constraints related to policy guidance and personal competence. The results therefore reinforce ecological perspectives that situate death education within broader institutional and cultural systems.

With respect to implementation barriers (RQ5–RQ6), the prominence of cultural taboos and insufficient policy support echoes research conducted in other collectivist societies where death remains a sensitive subject. However, unlike contexts where death education has achieved gradual institutionalization, the findings in Mainland China highlight stronger systemic and policy-level constraints. This distinction underscores the necessity of culturally adaptive implementation strategies rather than direct replication of Western curriculum models.

The experimental findings (RQ13–RQ14) further align with prior intervention studies demonstrating that experiential and reflective pedagogies can reduce death anxiety and enhance coping ability. Studies in Japan and South Korea, for example, have reported improvements in emotional readiness and professional orientation following structured death-related courses (FUJII, 2023; Y. Kim et al., 2016). The present study extends this body of research by providing quasi-experimental evidence within the Mainland Chinese higher education setting, thereby strengthening the cross-cultural generalizability of intervention-based outcomes.

At the same time, this study reveals context-specific nuances. Chinese students' emphasis on breaking intergenerational communication taboos and addressing culturally embedded avoidance patterns suggests that curriculum design must incorporate culturally re sonant strategies. International models that integrate experiential activities, narrative

sharing, and humanistic reflection offer valuable guidance, but localized adaptation remains essential.

Overall, the findings both confirm global theoretical assumptions regarding the benefits of death education and contribute novel empirical insights from a Mainland Chinese context. By integrating mixed-method evidence and experimental validation, this study bridges descriptive international literature with culturally grounded empirical analysis, thereby enriching the comparative scholarship on death education curriculum development.

5.2.7 Comparison with Research Methods

In this study, qualitative and quantitative research form a profound methodological complementarity: the former captures subjective experiences and meaning-making in complex educational contexts through in-depth interviews and participant observation, providing a humanistic perspective for generating theoretical hypotheses; the latter verifies hypotheses using standardized measurement tools and reveals group characteristics and laws through statistical analysis, consolidating the generalizability of conclusions. Their cross-validation mechanism systematically deconstructs the actual state, diverse needs, and underlying challenges of death education in higher education institutions in Mainland China, offering dual evidential support for the scientific design of localized curriculum frameworks and the precise formulation of implementation strategies. The study not only fills the gap in domestic empirical research regarding methodological integration but also, through the organic integration of mixed research data, builds a solid evidence chain for subsequent assessment of the potential impact of the curriculum (Objective 7) and the review and analysis of existing curricula within and outside Mainland China (Objective 4).

5.2.8 Retrospection and Expansion of Research Findings on the Literature Review

In addressing RQ1–RQ7, the findings are compared with existing international and domestic literature to contextualize the present study within broader theoretical and empirical developments. Building on these frameworks, this section conducts a comparative analysis by integrating the qualitative and quantitative findings of the present study: the research results provide a local perspective for examining existing curricula, and

propose that future improvements need to deeply integrate local policy contexts and cultural foundations while drawing on international experiences, so as to promote adaptive innovation of death education curriculum frameworks in Mainland China.

International experiences show that death education curricula should systematically integrate four core elements: knowledge construction, emotional support, skill development, and meaning-of-life exploration (Phan et al., 2024). This study shows that student demands for “deconstructing scientific knowledge of death,” “managing grief and death anxiety,” and “building practical hospice and crisis response skills” (Qualitative Theme 2) align closely with these global elements, and also reflect the “cognition–acceptance–practice” framework used in South Korea (Y. Kim et al., 2016). Notably, Chinese students particularly emphasize “breaking cultural taboos,” especially around intergenerational dialogue. This focus can be usefully contrasted with Japan’s experiential approach based on the “Three Perspectives of Death,” which demystifies death through activities such as simulated funerals (FUJII, 2023). These international designs offer valuable insights for local curriculum development.

Quantitative research data show that Chinese students scored significantly lower in the dimension of "knowledge of grief and bereavement" (mean M=2.23). In contrast, Japanese death education curricula, through innovative experiential designs such as inviting suicide survivors and hospice chaplains to share real experiences and conducting simulated death experience workshops, guide students to pre-process grief emotions through retrospection and anticipation. This provides important insights for improving China’s curriculum system.

From the perspective of institutional construction, the "policy blockage" phenomenon revealed in this study can be addressed by drawing on mature international experiences. The United States has built an institutional guarantee mechanism to promote the development of death education relying on professional certification standards and systematic curriculum design (Wass, 2004); scholars from Australia and Taiwan, China, jointly proposed a "Life-Death Education Integration Framework", which realizes the natural infiltration of educational goals through a flexible curriculum structure. These practical achievements provide multi-dimensional reference paradigms for the construction of China’s localized death education system.

In local research in Mainland China, the experiential framework at Capital Medical University enhances medical students' humanistic care skills through visits to palliative care wards. Medical students' preference for immersive learning in this study further supports this model. Additionally, students' preference for engaging methods is also seen in activities like "death cafes" and "screenings of death ethics films" at Central South University (Huang et al., 2023). However, existing local curricula and research often show a "medicalization bias." Both qualitative and quantitative studies indicate that students across majors consider death education important and have specific needs regarding course format, content, and resources. For medical students, besides clinical demands, their need to cope with death anxiety is also significant. This aspect can draw on the "Three Perspectives of Death" module from Japanese curricula (FUJII, 2023) by integrating humanistic content such as existential philosophy, and also refer to Phan et al. (2024) by emphasizing humanistic care discussions related to death. Such approaches guide deep reflection on life's meaning and value, foster a positive view of death, and build positive emotions and practical skills, enhancing self-wellbeing.

5.2.9 Design Optimization and Implementation Considerations for Curriculum Framework Based on Theories and Empirical Evidence

The systematic construction of death education in higher education has become a significant trend in global educational development. However, death education curricula in Mainland China are constrained by multiple factors such as cultural taboos, institutional barriers, and insufficient resources, resulting in notable challenges in curriculum implementation and effectiveness. This section systematically explores the optimization paths for a death education curriculum framework in higher education settings, drawing on interdisciplinary theoretical frameworks including Thanatology, Constructivist Learning Theory, Ecological Systems Theory (EST), and the Health Belief Model (HBM). It integrates empirical findings from qualitative and quantitative studies, as well as insights from international experiences, aiming to provide design logic and implementation guidance for constructing a scientific and locally adaptable death education curriculum framework.

5.2.9.1 Insights and Recommendations from Theoretical Frameworks for Death Education Curriculum Design

As mentioned in Chapter 1 "Theoretical Framework", this study constructs its research framework based on interdisciplinary theories such as Thanatology, Constructivist Learning Theory, Ecological Systems Theory (EST), and the Health Belief Model (HBM). These theories not only inherently explain the necessity of death education for individual psychological adjustment and sociocultural adaptation but also, through in-depth involvement in goal setting, content structuring, and strategy selection, transform abstract theories into operable practical plans. They provide a systematic design logic and implementation guidance for the formulation of the death education curriculum framework in higher education within this study.

5.2.9.1.1 Thanatology: The Theoretical Foundation of Death Education Curriculum

Core of the Theory: As a theoretical system studying death and dying phenomena, Thanatology centers on providing individuals with a theoretical framework for understanding death and alleviating anxiety through systematic exploration of death-related issues (Kellehear, 2018). The theory emphasizes three key theoretical values:

Theoretical foundation for psychological adjustment: By deconstructing the biological nature and psychological mechanisms of death, it provides theoretical support for reducing death anxiety and constructing the meaning of life as "living towards death".

Theoretical support for professional practice: It offers ethical principles and psychological mechanisms for addressing death-related issues in fields such as healthcare and education, e.g., the theory of informed consent in hospice care and cognitive-behavioral theory in grief counseling.

Theoretical framework for cognitive integration: It integrates scientific perspectives on death (e.g., mechanisms of physiological failure) with cultural narratives of death (e.g., philosophical and religious interpretations of death) to form a pluralistic theoretical cognitive system.

Alignment with Research Findings:

Theoretical resonance with death cognition needs: The research results reveal a clear demand for death cognition, which resonates with Thanatology. Qualitative studies

show that students request "detailed explanations of the process of organ failure during the dying stage" and "comparisons of death narratives across civilizations", reflecting their need for understanding death at both scientific and cultural levels. This aligns with Thanatology's theoretical logic of "helping students gain a deeper understanding of death".

Empirical resonance with death anxiety intervention: In qualitative studies, medical interns explicitly stated the need for "curricula to regulate anxiety from witnessing patients' deaths". Quantitative data also indicate that "death anxiety intervention techniques" are a core psychological demand, consistent with Thanatology's assertion that "anxiety can be alleviated through education".

Verification of theoretical support for professional practice: Medical and nursing students' demand for "theories of end-of-life pain management" and "ethics of communicating with families" reflects their need for Thanatology's "theoretical foundation for coping with death in professional settings". Quantitative studies show that medical students have a significant demand for "theoretical support in practical dimensions", highlighting Thanatology's foundational guiding role in skill development.

Insights and Recommendations for Curriculum Design:

It is recommended to establish multiple goals of "theoretical cognition - anxiety reduction - professional empowerment" based on Thanatology. Strengthen theoretical input to address students' demand for scientific knowledge about death: Introduce Thanatology's "grief narrative theory" and practice narrative therapy through activities such as "life review journals" to meet students' needs for grief coping methods. Based on Thanatology's "professional ethics framework", design courses like "Theoretical Seminars on ICU End-of-Life Decision-Making" to provide medical students with foundational theoretical support (e.g., principles of resource allocation) that aligns with their practical needs in clinical settings.

5.2.9.1.2 Constructivist Learning Theory: Reshaping the Paradigm of Active Learning

Theoretical Core: Knowledge is constructed through a process of "experience—reflection—construction," emphasizing that learners actively construct meaning through social interaction (Vygotsky, 1978). Its concept of the "Zone of Proximal Development (ZPD)" posits that students' development encompasses both their current ability level and

their potential developmental level. The essence of teaching lies in using scaffolding tasks to help students bridge the gap between these two levels, thereby achieving active knowledge construction (Vygotsky, 1978).

Alignment with Research Findings: Qualitative studies reveal that students explicitly express a preference for the "dual construction of immersive learning and safety barriers," such as "using VR technology to recreate ICU scenarios" and "implementing a ‘safe word’ mechanism," as well as a strong demand for "collaborative discussion mechanisms," exemplified by comments like "hoping to share and discuss with classmates." These needs are fully consistent with the "active participation and social interaction" advocated by constructivist theory. However, it is noteworthy that the theory did not fully anticipate students’ specific need for "safety barrier mechanisms" (e.g., the "safe word" in VR scenarios), which is closely linked to Chinese students’ emotional defense mechanisms toward death-related topics.

Implications and Recommendations for Curriculum Design:

This curriculum adopts strategies such as experiential learning, contextual case discussions, and reflective writing to facilitate students’ transition from "passive reception" to "active construction" of knowledge (Vygotsky, 1978). Notably, the design of the death education curriculum framework must deeply integrate immersive experiences with localized safety mechanisms in its teaching strategies. For instance, VR technology can be used to simulate ICU end-of-life scenarios with a "safe word pause" function, or role-playing activities such as "communicating with families about brain death" can be organized. Such experiential learning strengthens students’ active construction process.

Simultaneously, contextually relevant discussions should be conducted using ethically rich, culturally specific cases—such as "Confucian filial piety versus decisions in palliative care"—to guide students beyond passive acceptance and actively deconstruct the cultural implications of death-related issues. In reflective writing, an incremental path from "low-sensitivity topics to in-depth narratives" should be followed (e.g., progressing from writing a "narrative of a pet’s death" to "memories of a loved one’s final moments"), which aligns with the scaffolding principle emphasized in Vygotsky’s ZPD theory (Vygotsky, 1978).

Furthermore, constructing a progressive learning pathway of "cognitive exploration (classroom theoretical learning) — simulated practice (VR technology application) — real-world application (community volunteer service/hospital clinical internships)" is crucial. This pathway not only aligns with the "active construction" learning philosophy but also meets the requirements of the ZPD theory, enabling students to gradually enhance their ability to address complex death-related issues (Vygotsky, 1978).

5.2.9.1.3 Ecological Systems Theory (EST): Addressing Multi-Layered Barriers in Localized Implementation

Theoretical Core: Bronfenbrenner's (1979) Ecological Systems Theory situates individual development within nested environmental systems. Individual behavior is influenced by multiple layers of environment, including the microsystem (family/classroom), mesosystem (university institutions), and macrosystem (sociocultural context) (Bronfenbrenner, 1979). The macrosystem, in particular, refers to overarching norms such as sociocultural values and ideologies, which directly shape individuals' perceptions and attitudes toward death (e.g., the impact of China's "death taboo" culture on educational practices).

Alignment with Research Findings: Qualitative studies identify core barriers to implementing death education, including "inertia of cultural discipline" (e.g., "discursive taboo systems," "intergenerational cultural transmission") and "institutional obstacles" (e.g., "lack of policy support systems," "insufficient resource allocation mechanisms"). These findings align perfectly with EST's prediction of resistance from the macrosystem (culture) and mesosystem (institutions). Quantitative research further confirms that "cultural taboos," "lack of supportive higher education policies and regulations," and "insufficient resources" are prominent implementation barriers, validating EST's explanatory power regarding multi-layered environmental constraints.

Implications and Recommendations for Curriculum Design:

(1) Symbolic Translation and Value Alignment in the Macrosystem

Symbolic Translation: To address the cultural symbolic taboo of "death = inauspiciousness" in the macrosystem, curriculum initiation should reduce cognitive resistance through terminology reconstruction (e.g., using "life rituals" instead of "funeral" a term with negative connotations). This strategy echoes EST's core proposition that

"cultural symbols, as elements of the macrosystem, influence individual behavior" (Bronfenbrenner, 1979). As students' receptivity improves and cultural resistance diminishes, the curriculum can gradually transition from translated symbols to direct discussions of death, demystifying the topic and integrating once-taboo death-related content into daily teaching contexts.

Value Convergence: Dialogue should be fostered between Confucian "filial piety" (a traditional value in the macrosystem) and modern hospice ethics (e.g., "death with dignity"). For example, framing "end-of-life companionship as a modern practice of filial piety" transforms the traditional cultural emphasis on "reverence for the deceased and remembrance of ancestors" into an actionable ethical framework, resolving the "tradition vs. modernity" value conflict within the macrosystem (Bronfenbrenner, 1979).

(2) Policy Embedding and Cross-Institutional Collaboration in the Mesosystem

Policy Embedding: At the mesosystem level, efforts should be made to integrate death education into university general education as a required or elective course. Drawing on EST's mechanism of systemic influence on individual behavior (Bronfenbrenner, 1979) and quantitative evidence of high scores indicating "insufficient policy support," a scientific process of "needs assessment—problem diagnosis—goal setting" should be adopted to form an evidence chain linking "curriculum necessity—social demand—policy recommendations," providing institutional support for curriculum development.

Cross-Institutional Collaboration: To address resource shortages, a "death education resource-sharing platform" should be established in collaboration with civil affairs and health departments, integrating cross-sector resources such as hospice care institutions and VR equipment to resolve the "insufficient resource allocation mechanisms" identified in qualitative studies. Additionally, a mesosystem network connecting "universities—hospitals—communities" should be built, such as joint practice bases with hospice hospitals, integrating medical students' "clinical death case analysis" with non-medical students' "experiential learning in grief companionship." Institutional design can thereby overcome the "resistance to interdisciplinary collaboration" reported by teachers.

(3) Family-School Collaborative Optimization and Hierarchical Teaching in the Microsystem

Family-School Collaborative Intervention: Develop "family death dialogue workshops" to invite parents to participate in grief narrative sharing, transforming the resistance of parents who view death as "inauspicious" (identified in qualitative studies) into educational resources.

Hierarchical Teaching: Integrate EST's logic of multi-level interaction into microsystem teaching through multi-dimensional tasks, such as "group collaboration to analyze death-related policy texts" (mesosystem), "role-playing to resolve family conflicts in death dialogue" (microsystem), and "writing regional death culture research reports" (macrosystem). These tasks enable students to understand the ecological complexity of death education through cross-system interactions, echoing EST's core view that "microsystems and macrosystems mutually influence one another" (Bronfenbrenner, 1979).

5.2.9.1.4 Health Belief Model (HBM) and Theory of Planned Behavior (TPB): Driving Behavioral Change in Participation

Theoretical Core:

HBM (Rosenstock, 1974): Individual behavior is driven by "perceived susceptibility" (relevance of death issues to oneself), "perceived severity" (assessment of consequences), "perceived benefits" (curriculum value), "perceived barriers" (implementation obstacles), and "self-efficacy" (confidence in execution). It emphasizes enhancing participation motivation through cognitive interventions.

TPB (Ajzen, 1991): Behavioral intention is determined by "attitude" (evaluation of the curriculum), "subjective norms" (expectations of significant others), and "perceived behavioral control" (perception of resources and abilities), focusing on the influence of social norms and implementation environments on behavior.

Complementarity: HBM addresses the cognitive question of "why participate," while TPB resolves the social barriers to "whether participation is possible." Together, they form a complete driver chain of "individual psychology—social influence—behavioral intention," providing theoretical support for improving participation in death education.

Alignment with Research Findings:

HBM Dimensions: Qualitative studies reveal students repeatedly expressing needs such as "hoping the curriculum provides methods to cope with grief from loved ones' deaths" and "alleviating practical death anxiety," directly reflecting demand for "perceived benefits" of the curriculum's practical value. Quantitative data further corroborate this dimension: students' cognitive scores for "death education's role in enhancing psychological resilience" reach 1.51, significantly higher than other dimensions, indicating widespread recognition of death education's positive impact on improving psychological adjustment abilities.

TPB Dimensions: Qualitative research identifies multiple external constraints on death education implementation, such as "parental resistance to curriculum content due to traditional beliefs," "teachers avoiding sensitive topics under social pressure," "difficulties in interdisciplinary teaching," and "general lack of teaching confidence." These correspond to the influence of "subjective norms" (sociocultural pressure), "perceived behavioral control" (resource and ability limitations), and "perceived severity" (consequence assessment) on behavioral decisions (Document 2, 4.2.3.3.1-3.3). Quantitative studies show that despite students' general agreement that "death education is important for all university students" (perceived susceptibility), actual curriculum advancement remains significantly constrained by external norms and control factors, validating TPB's core view that "behavioral intention and actual behavior are shaped by multiple factors."

Implications and Recommendations for Curriculum Design:

Based on the Health Belief Model (HBM) and the Theory of Planned Behavior (TPB), the design of the death education curriculum framework should focus on two key aspects: strengthening perceived value and reconstructing behavioral norms.

HBM-Oriented: Enhancing Practical Value and Implementation Feasibility. Guided by the core mechanisms of the Health Belief Model proposed by Rosenstock (1974), the curriculum must stimulate students' motivation to participate through the tangible presentation of benefits and the design of actionable pathways. On one hand, concrete materials such as clinical hospice cases and success stories of bereavement psychological adjustment should be used to construct a benefit chain of "knowledge acquisition → improved grief coping ability → enhanced professional literacy/life well-

being," which intuitively demonstrates the curriculum's value in fostering psychological resilience and solving real-life problems. On the other hand, resources from VR end-of-life scenario simulation systems and hospital volunteer practice bases should be integrated to create modular tasks such as "VR simulation training (required X hours) + real-world volunteer service (X hours)." This transforms abstract "perceived behavioral control" into clear, operable learning pathways, effectively alleviating students' anxiety about "not knowing how to apply knowledge" and promoting the conversion of theoretical knowledge into practical abilities.

TPB-Oriented: Breaking Social Barriers and Building a Supportive Ecosystem. In line with Ajzen's (1991) Theory of Planned Behavior, curriculum implementation must overcome constraints from subjective norms and behavioral control barriers. For teachers, joint lesson preparation workshops themed "Medical Ethics + Philosophical Thinking" should be organized, inviting industry experts to demonstrate interdisciplinary teaching and encouraging teachers to share practical experiences. This aims to transform the negative perception of "difficulties in interdisciplinary teaching" into a positive belief that "multi-dimensional perspectives empower teaching." For the public, community-based dialogue activities such as "death cafes" and "death education open days" should be held to disseminate, through real cases, the idea that "scientific death education can effectively reduce anxiety and improve quality of life." These efforts will gradually dispel traditional taboos around death-related topics and reshape society's positive perception of death education. By advancing on both fronts, a collaborative social environment supported by families, schools, and communities can be built, laying a solid foundation for the regular implementation of the curriculum.

5.2.9.1.5 Cultural Competence Theory: Enhancing Cultural Adaptability

Theoretical Core: Cultural Competence Theory emphasizes the significance of understanding diverse cultural perspectives in the delivery of educational and healthcare services. Professionals must comprehend and respect the cultural dimensions of death to effectively serve diverse populations (Sue et al., 2019).

Alignment with Research Findings: Qualitative studies reveal that teachers commonly use euphemisms such as "end of life" in instruction, while parents often lodge complaints about the curriculum due to perceptions of death as "inauspicious," creating dual barriers of a "discursive taboo system" and "intergenerational cultural transmission."

Quantitative research further confirms that "cultural taboos" rank as the second most prominent implementation barrier (M=1.97, SD=0.885), consistent with the theory's emphasis on the "importance of cultural perspectives." Students' explicit requests for content on "the historical evolution of death taboos" and "comparisons of death narratives across civilizations" reflect their attention to the cultural dimensions of death. Additionally, students' attempts to integrate scientific views of death with beliefs in soul reincarnation, rooted in their ethnic cultures, highlight cognitive conflicts between local traditions and modern education—underscoring the need for curricula to provide pathways for reconciliation.

Implications and Recommendations for Curriculum Design:

(1) Curriculum Content: Bidirectional Cultural Adaptation

Deconstruction of Local Culture: Introduce a module on "The History of Chinese Death Culture" to analyze the modern transformation of Confucian funeral rituals and Taoist concepts of "the natural cycle of life and death." For example, explore the relationship between filial piety and death anxiety through the Confucian precept of "reverencing the deceased and honoring ancestors" (from The Analects of Confucius·Xue Er), addressing students' demand to "understand the historical evolution of death taboos."

Cross-Cultural Comparison: Incorporate cases such as Mexico's Día de los Muertos (Day of the Dead) and Japan's "death cafes," using VR technology to simulate death rituals across cultures. This builds a cognitive framework of "death's diversity," responding to students' need for "comparisons of death narratives across civilizations."

Engagement with Family Culture: Design "intergenerational death dialogue workshops" to invite parents to participate in grief narrative sharing. This mitigates the obstruction of traditional beliefs like "inauspiciousness" on education and addresses teachers' concerns about parental cultural sensitivity identified in qualitative and quantitative studies.

(2) Teaching Methods: Culturally Contextualized Experiences

Metaphorical Translation in Teaching: Initially use natural metaphors such as "autumn leaves withering and nurturing spring soil" to explain the cycle of death, reducing

students' psychological resistance. For instance, correct abstract perceptions of death as a "revivable game status" (mentioned in FG5) through real-life experiential learning.

Integration of Community Resources: Collaborate with funeral homes and hospice institutions to organize "Life Education Practice Weeks," combining local funeral rituals with ethical discussions to avoid abstract preaching divorced from cultural contexts.

(3) Teacher Training and Policies: Building a Cultural Competence System

Teacher Certification Standards: Establish training modules covering "Chinese Death Culture History" and "cross-cultural communication skills," requiring teachers to master localized competencies such as "death metaphor translation" and "intergenerational conflict mediation." This responds to the need for "professional development of teachers" identified in qualitative research.

Reconstruction of Policy Discourse: Clarify the importance of death education in educational policies and incorporate "cultural adaptability" into curriculum evaluation indicators. This alleviates schools' defensive tendency to "embed death-related content in marginalized courses."

5.2.9.1.6 Kern 's Six-Step Curriculum Development Model: Constructing a Scientific Development Path

Theoretical Core: Curriculum development should adhere to the cyclic logic of "problem identification — needs assessment — goal setting — strategy selection — implementation — evaluation and revision" (Kern et al., 2009).

Curriculum Design Logic Based on the Model. Guided by the localized practical logic of Kern's curriculum development model, the construction of the death education curriculum framework follows a scientific pathway: "problem diagnosis — needs analysis — goal construction — strategy response — implementation guarantee — evaluation iteration," with specific optimizations as follows: First, identify core contradictions in local implementation to pinpoint key problems. Second, integrate qualitative interview data and quantitative findings to anchor multi-dimensional needs. Third, set curriculum goals and select strategies based on theoretical and practical explorations to address diverse needs. Subsequently, plan implementation pathways and design resource guarantee mechanisms.

Finally, evaluate and revise the curriculum and its implementation outcomes to form a dynamic feedback and continuous optimization mechanism.

Alignment with Research Findings: This study adopts a mixed-methods approach, conducting "needs assessment" through qualitative interviews (e.g., focus groups with teachers and students) and quantitative surveys (798 valid questionnaires). It identifies core issues such as "knowledge gaps" and "implementation barriers," which fully align with the initial steps of "problem identification needs assessment" in Kern's model. Qualitative coding results (e.g., four core themes) and quantitative analyses (e.g., reliability/validity tests, difference analyses) in Chapter 4 directly inform curriculum goal setting (e.g., three-dimensional goals) and strategy selection (e.g., hierarchical teaching, multi-modal resource development). Furthermore, the design logic of "continuous improvement and dynamic adjustment" is highly consistent with the "evaluation and revision" phase of Kern's model, reflecting the in-depth mutual verification between theoretical models and empirical research.

5.2.9.2 Insights from Domestic and International Comparative Studies for Designing Death Education Curriculum Frameworks in Mainland China

Based on a comprehensive review of domestic and international research findings, the design of death education curriculum frameworks in Mainland China can draw insights from multiple dimensions. Comparative analysis helps identify alignment between existing issues in local curricula and advanced international experiences, thereby exploring more suitable directions for development.

5.2.9.2.1 Emphasis on Both Core Elements and Cultural Adaptation

International experiences emphasize that death education curricula should integrate four core elements: knowledge construction, emotional support, skill training, and exploration of life meaning. This aligns with Chinese students' needs for scientific knowledge about death, grief management, and practical skills, while also echoing South Korea's three-dimensional concept of "cognition-acceptance-practice." However, Chinese students place greater emphasis on "breaking cultural taboos," particularly resolving intergenerational discursive taboos. Japan's experiential teaching based on the "three perspectives of death," which dispels the mystery of death through activities like simulated funerals, offers valuable insights for curriculum development in Mainland China. While

incorporating core elements, curricula should design targeted teaching activities rooted in local culture to break cultural barriers and enable students to face death-related topics more openly.

5.2.9.2.2 Innovating Teaching Models to Address Knowledge Gaps

Quantitative studies show that Chinese students score relatively low in the dimension of "grief and bereavement knowledge." Japan's innovative experiential teaching such as inviting suicide survivors and hospice pastors to share experiences, and organizing simulated death experience workshops effectively guides students to pre-emptively process grief emotions. Mainland China can learn from such models, enhancing students' understanding and coping abilities regarding grief and bereavement through diverse experiential activities. This shift from traditional theory-centered instruction will improve students' emotional engagement and practical coping skills.

5.2.9.2.3 Improving Institutional Construction to Promote System Development

To address the "policy barriers" in death education in Mainland China, reference can be made to the institutional guarantee mechanisms established in the United States through professional certification standards and systematic curriculum design, as well as the flexible curriculum structure of the "life-death education integration framework" proposed in Australia and Taiwan, China. By establishing a sound policy support system and professional certification standards, and optimizing curriculum structures, death education goals can be more naturally integrated into the educational process, providing institutional support for the sustainable development of death education.

5.2.9.2.4 Balancing Curriculum Content and Emphasizing Humanistic Care

Although local research in Mainland China has explored popular formats such as experiential learning and gamified learning, existing curricula generally exhibit a "medicalization bias." Drawing on Japan's theoretical speculation module of "three perspectives of death," curricula should integrate humanistic content such as existential philosophy discussions. Additionally, referencing research by Phan et al., attention should be paid to humanistic care discussions related to death. This will guide all students to reflect deeply on the meaning and value of life, cultivate positive attitudes toward death, develop practical skills and positive emotions, meet the needs of students from different

majors in coping with death anxiety, enhance self-well-being, and ensure that death education truly becomes an important component of holistic education.

5.2.9.3 Insights from Qualitative Research: Optimization and Implementation Considerations for Higher Education Death Education Curriculum Frameworks

Qualitative research focuses on the construction of death education curriculum frameworks within the context of higher education in Mainland China. Through in-depth interviews with teachers and students, combined with multi-dimensional textual analysis, systematic findings have been formed regarding cognitive biases, attitudinal contradictions, demand mapping, practical dilemmas, and curriculum design ideas. These findings provide targeted and systematic practical guidance for the innovation and implementation of death education curriculum frameworks:

5.2.9.3.1 Conceptual Innovation: Rooted in Local Culture, Reshaping the "Student-Centered" Value Core

Research reveals that although teachers generally recognize the intrinsic connection between death education and life education, teaching practices struggle to break through inherent frameworks due to constraints such as traditional death taboo culture, conservative parental attitudes, and insufficient policy support. This requires curriculum framework design to be deeply embedded in the Chinese cultural context, anchored in students' real needs, and to help students alleviate death anxiety through interdisciplinary knowledge integration and humanistic care penetration, achieving a cognitive leap in life from "fear of death" to "contemplation of life." Additionally, it is necessary to strengthen the cultivation of professional ethics among students in specialized fields, balance Western theories with local ethical norms, and avoid simplistic transplantation of foreign models.

5.2.9.3.2 Goal Reconstruction: Building a Multi-Dimensional Collaborative System to Precisely Address Differentiated Needs

Cognitive differences between teachers and students regarding death education, coupled with the diverse characteristics of students' needs, have driven the transformation of the curriculum goal system toward a four-in-one framework of "cognition—emotion—ability—value." At the cognitive level, it is necessary to eliminate students' cognitive blind spots about death and shape rational views on life and death; at the emotional level, alleviate fear through experiential teaching and cultivate reverence for life; at the ability

level, provide customized practical training for different majors; at the value level, guide students to establish positive life attitudes amid conflicts between traditional and modern values. Furthermore, a dynamic stratification mechanism should be established to precisely adapt to the personalized needs of students from different majors and grades.

5.2.9.3.3 Content Innovation: Deepening Interdisciplinary Integration and Promoting a Hierarchical Teaching Structure

Students' needs for death education content are significantly influenced by their disciplinary backgrounds, career plans, and personal experiences, showing strong diversity. Curriculum content design must break disciplinary barriers, integrate perspectives from medicine, psychology, sociology, and other fields, and construct a three-dimensional knowledge matrix covering scientific knowledge, psychological intervention, practical skills, and value shaping. Simultaneously, based on students' cognitive development laws, content should be divided into three levels—basic general knowledge, advanced expansion, and professional deepening—to ensure precise matching between teaching content and students' abilities, achieving differentiated cultivation.

5.2.9.3.4 Model Upgrading: Innovating Teaching Forms and Promoting Systematic Curriculum Integration

Students' preference for immersive and lightweight learning methods, combined with institutional resistance in curriculum promotion, requires curriculum implementation to balance innovation and standardization. On one hand, introduce diverse teaching methods such as VR technology, scenario simulation, and interactive board games, and integrate interactive models like topic debates and case discussions to enhance learning experience; on the other hand, construct a dual-track curriculum system of "general education required courses + professional elective courses," systematically embedding death education into existing disciplinary frameworks, and leveraging interdisciplinary advantages to reduce implementation resistance and meet personalized learning demands.

5.2.9.3.5 Resource Enhancement: Strengthening Teacher Development and Developing Diversified Teaching Carriers

The urgent demand for professionalization of teachers from both teachers and students, coupled with the current shortage of curriculum resources, highlights the importance of a resource guarantee system. It is necessary to establish a hierarchical and classified teacher training mechanism, clarify core competency standards for teachers in

different disciplines, and support it with a standardized teacher certification system to improve teachers' interdisciplinary teaching and crisis intervention capabilities. Meanwhile, develop a multi-modal teaching resource library covering images, texts, interactive platforms, and expert think tanks to support students' independent inquiry-based learning and provide solid guarantees for curriculum implementation.

5.2.9.3.6 Evaluation Optimization: Building a Dynamic Feedback Mechanism to Drive Continuous Curriculum Iteration

To ensure the achievement of curriculum goals and a student-centered growth orientation, traditional evaluation models need to be innovated. A multi-faceted evaluation approach combining process-oriented and summative assessment should be adopted, with a focus on students' internalization of death-related topics, emotional transformation, and practical application abilities. Through real-time feedback channels, continuous tracking of students' cognitive and emotional changes will be conducted, and curriculum content and resources will be dynamically updated in response to social needs. This forms a positive "evaluation—feedback—improvement" cycle, enhancing teaching quality and students' comprehensive literacy.

5.2.9.3.7 Guarantee Collaboration: Constructing a Multi-Stakeholder Network to Break Implementation Barriers

Practical challenges such as cultural taboos, institutional gaps, and public opinion pressure urgently require the construction of a comprehensive curriculum guarantee system. Educational authorities need to issue special policies specifying standards for class hours, teacher allocation, and resource support; reshape public perception of death education through social publicity and family-school collaboration; integrate resources from universities, medical institutions, communities, and other stakeholders, and build cross-departmental collaboration platforms to create a favorable ecosystem for the standardized and sustainable development of the curriculum system.

5.2.9.4 Curriculum Framework Optimization and Implementation Considerations for Higher Education Death Education: Insights from Quantitative Research

5.2.9.4.1 Optimization of Curriculum Goal System

First, given that most respondents recognize the value of death education and students' insufficient mastery of death-related content, curriculum goals should focus on

helping students scientifically understand death, enhance their psychological resilience, and strengthen their ability to cope with emotional impacts related to death. Second, data analysis reveals significant differences in attitudes toward death education across age groups; thus, age factors must be considered when setting goals, with more targeted objectives designed to align with the characteristics of students in different age cohorts. Additionally, for medical students, goals should emphasize developing their competence in handling death-related issues in professional contexts—such as hospice care, doctor-patient communication, and medical ethics—and fostering a profound spirit of humanistic care.

5.2.9.4.2 Reconstruction of Curriculum Content System

Interdisciplinary Knowledge Integration: ANOVA and post-hoc comparison results indicate no significant differences in death education awareness among students from different disciplines, with all groups sharing a similar cognitive starting point. This provides a practical foundation for interdisciplinary integration. Curriculum content should break disciplinary barriers, integrating knowledge from medicine (e.g., physiological mechanisms of death), psychology (e.g., grief coping strategies), sociology (e.g., cultural changes in death practices), and philosophy (e.g., exploration of life meaning) to construct a systematic, multi-dimensional knowledge map. Furthermore, content should be stratified by age to address varying attitudes toward death education across age groups.

Practical Deepening of Content: Survey results show students widely acknowledge death education's role in promoting personal growth and coping with grief, indicating a focus on practicality. Thus, teaching content should incorporate rich practical cases—such as real hospice care experiences and emotional management during bereavement—to provide references for applying knowledge to life and careers. Simulated practice sessions should also be added to allow students to hone coping skills in simulated scenarios.

Specialized Advanced Modules: Although the sample included a high proportion of medical students, teachers from different disciplines demonstrated comparable mastery of death education knowledge, suggesting disciplinary background does not significantly influence teachers' understanding. When designing specialized advanced modules, courses should build on interdisciplinary integration while offering medical students additional content such as standardized hospice care protocols, simulated doctor-patient communication scenarios, and case analyses of ethical dilemmas in medicine. Emphasis on

practical components will ensure seamless alignment with clinical practice, better serving medical students' future careers and enhancing professional identity.

5.2.9.4.3 Innovative Teaching Strategies

Survey data confirm that respondents generally view death education as beneficial to students' future development. Teaching methods can be tailored to support students' developmental needs:

Case-Oriented Teaching: Analyzing real cases helps students master death-related knowledge and coping strategies while enhancing empathy and contextual understanding. Cases should cover diverse age groups and scenarios to meet varied learning needs.

Immersive Experiential Learning: Organizing activities such as hospice care volunteer services and simulated funeral practices strengthens emotional resonance and practical abilities. Additionally, virtual reality (VR) and augmented reality (AR) technologies can create immersive experiences—e.g., simulating hospice care scenarios—allowing students to learn in a safe environment.

Collaborative Inquiry Learning: Group discussions and debates encourage critical thinking and communication skills. Groups should mix students from different disciplines and age cohorts to foster diverse perspectives and exchanges.

5.2.9.4.4 Curriculum Resource Guarantee Strategies

Teacher Training: Data identify "a lack of trained faculty" as a major barrier, making teacher training crucial. Programs should enhance interdisciplinary teaching capabilities, enabling educators to integrate multi-disciplinary knowledge, and develop skills in facilitating discussions and managing student emotions. Training content should be stratified by teachers' disciplinary backgrounds and experience to improve relevance and effectiveness.

Resource Utilization: To address insufficient institutional resources, modern educational technologies should be leveraged to enrich teaching resources. This includes developing multimedia materials (e.g., high-quality videos, animations, interactive courseware) to boost engagement, building online platforms for course materials, case analyses, and discussion forums to support independent learning, and exploring VR/AR

applications for immersive experiences like simulated hospice care. Collaboration with internal and external institutions (e.g., hospitals, funeral homes, hospices, psychological counseling centers) should also be pursued to access practical resources and professional support, expanding teaching content and learning channels.

Policy Support: Respondents cite insufficient policy support as the biggest obstacle to implementing and promoting death education. Schools should actively secure policy backing, such as special funding for curriculum development, teacher training, and practical activities; encourage interdisciplinary collaboration to break barriers and share resources; and integrate death education into general education or elective systems to institutionalize and normalize it. Policies should also incentivize teacher participation in teaching and research on death education.

5.2.9.4.5 Pathways for Curriculum Promotion and Implementation

Student-Oriented Strategies： Data indicate disparities in awareness of death education across roles, with students demonstrating lower understanding compared to faculty and administrators. To address this, themed campus activities—such as lectures, exhibitions, and knowledge competitions—should be organized to foster an open and inclusive learning atmosphere, thereby stimulating students' initiative to participate. Activity design should align with students' interests and age-specific characteristics to enhance engagement and appeal.

Faculty and Staff-Oriented Strategies： For teaching staff and administrators, specialized training programs, academic seminars, and experience-sharing sessions should be conducted to elevate their recognition of death education's importance, deepen their professional understanding, and encourage their active involvement in curriculum design, teaching implementation, and promotion efforts. This collaborative approach will foster a collective commitment to education. Training and seminar content should be customized to the needs of different roles to boost participation motivation.

5.2.9.5 Requirements for Reconstructing the Death Education Curriculum Framework Guided by Theory and Practice

Drawing on the dual logic of Kern's six-step model and qualitative research findings, this study redesigns the death education curriculum framework from four dimensions: goals, content, implementation, and evaluation. This approach not only

establishes a scientifically closed-loop system but also effectively responds to practical needs. Kern's six-step model (problem identification, needs assessment, goal setting, strategy selection, implementation, and evaluation-revision) provides logical support through its systematic cycle: goals derive from needs analysis, strategies correspond to content and implementation, and evaluation drives optimization, forming a logical closed loop of "goal-content-implementation-evaluation." Qualitative research identifies four core curriculum needs: goals (integrating knowledge, ability, and emotion); content (interdisciplinary integration, hierarchical design, interactive teaching); implementation (integration into existing courses, elective offerings, professional enhancement); and evaluation (use of reflection reports, situational assessments, and multi-stakeholder feedback). Thus, redesigning the curriculum framework across these four dimensions adheres to the scientific logic of Kern's theory while addressing the practical needs identified in qualitative research, forming a theory- and demand-driven systematic system. This section summarizes the requirements for reconstructing the higher education death education curriculum framework across the four dimensions (goals, content, implementation, and evaluation) based on the analysis in 5.2.1, ensuring that subsequent curriculum framework proposals are theoretically sound and practically oriented.

5.2.9.5.1 Requirements for Curriculum Goal Reconstruction

Theory-Based Goals: Grounded in Thanatology, establish multiple goals of "theoretical cognition - anxiety reduction - professional empowerment." Thanatology emphasizes providing individuals with a theoretical framework for understanding death and alleviating anxiety through systematic exploration of death-related issues. Its three theoretical values—psychological adjustment, professional practice support, and cognitive integration—serve as the theoretical basis for curriculum goal setting (Kellehear, 2018).

Needs-Responsive Goals: Based on qualitative research findings, students have clear needs for death cognition, anxiety intervention, and professional scenario coping. Thus, curriculum goals must form a four-in-one system of "cognition - emotion - ability - value." Cognitively, address students' knowledge gaps about death; emotionally, alleviate death anxiety; in terms of ability, provide discipline-specific practical skills; and in values, guide students to establish a positive outlook on life.

Differentiated and Hierarchical Goals: Quantitative research indicates significant differences in death education needs across age groups and disciplines. Therefore,

differentiated goals are required: for medical students, strengthen abilities in handling professional scenarios such as hospice care, doctor-patient communication, and medical ethics; for non-medical students, focus on psychological adjustment and cultural cognition cultivation.

5.2.9.5.2 Requirements for Curriculum Content Reconstruction

Interdisciplinary Integration: Based on quantitative findings that students from different disciplines share similar baseline awareness of death education, break disciplinary barriers to integrate knowledge from medicine (physiological mechanisms of death), psychology (grief coping), sociology (cultural changes in death practices), and philosophy (meaning of life and death), constructing a systematic and multi-dimensional knowledge map.

Hierarchical Structure Design: Align with students' cognitive development by dividing content into three levels: basic general education (popularizing scientific knowledge of death); advanced expansion (skills such as bereavement management); and professional deepening (ethics of end-of-life decision-making for medical students), enabling differentiated cultivation. This design derives from qualitative research conclusions that "content innovation requires hierarchical teaching" and integrates Vygotsky's "zone of proximal development" concept, using scaffolding tasks to facilitate active knowledge construction.

Culturally Adaptive Content: Based on Cultural Competence Theory, bidirectional cultural adaptation is implemented in curriculum content. For instance, a module titled "History of Chinese Death Culture" is offered to analyze Confucian funeral rituals and Taoist concepts of "the natural cycle of life and death"; cross-cultural cases such as Mexico's Day of the Dead are introduced, with VR technology used to simulate rituals from diverse cultures; and "intergenerational death dialogue workshops" are designed to alleviate the obstruction of traditional family beliefs on education.

5.2.9.5.3 Requirements for Curriculum Implementation Reconstruction

Innovative Teaching Models: Adopt constructivist experiential learning, using VR to simulate ICU end-of-life scenarios with a "safe word pause" function and organizing role-playing activities such as "communicating with families about brain death." Conduct contextual discussions on culturally specific ethical cases (e.g., "Confucian filial piety vs.

palliative care choices") and build a progressive learning pathway of "cognitive exploration - simulated practice - real-world application."

Institutional and Resource Guarantee: Based on Ecological Systems Theory, promote the integration of death education into university general education as required or elective courses at the mesosystem level; collaborate with civil affairs and health departments to establish a "death education resource-sharing platform" integrating hospice institutions and VR equipment; and build a "university-hospital-community" mesosystem network for clinical case analysis and grief companionship practice.

Social Cognition Remolding: Guided by the Health Belief Model (HBM) and Theory of Planned Behavior (TPB), organize "medical ethics + philosophical thinking" joint lesson preparation workshops for teachers; and hold community activities such as "death cafes" and "death education open days" to reshape positive social perceptions of death education.

5.2.9.5.4 Requirements for Curriculum Evaluation Reconstruction

Constructing a Multi-Dimensional Evaluation System: Establish a combined formative and summative evaluation system. Formative evaluation focuses on cognitive and emotional changes in reflective writing and VR scenario simulations; summative evaluation emphasizes practical skill assessments and improvements in understanding life meaning, comprehensively evaluating learning outcomes.

Establishing Dynamic Feedback Mechanisms: Guided by the cyclic logic of "assessment-feedback-revision" in Kern’s six-step curriculum development model, real-time feedback channels are utilized to track changes in students’ cognition and emotions. Curriculum content is dynamically adjusted in response to social needs, thereby forming a positive "assessment-feedback-improvement" cycle.

Cultural Adaptation Assessment: Incorporate "cultural adaptability" into evaluation indicators, assessing the effectiveness of local cultural case teaching and parental acceptance of the curriculum to ensure deep alignment with Chinese cultural contexts and enhance local applicability.

5.2.9.6 Summary

The research and summaries in this section form a complete logic for curriculum construction: anchoring interdisciplinary foundations through theoretical frameworks, extracting diverse experiences from domestic and international comparisons, achieving multi-dimensional upgrades in concepts and content through curriculum optimization, and implementing goals, content, implementation, and evaluation through practical strategies. This provides full-link guidance from top-level design to execution for building a curriculum system that adapts to diverse needs and combines theoretical depth with practical resilience.

5.2.10 Results of Curriculum Redesign

This section of the research, grounded in interdisciplinary theoretical frameworks such as Thanatology, Constructivist Learning Theory, and Ecological Systems Theory, adopts a mixed-methods approach to systematically construct a locally adaptable death education curriculum framework for higher education.

5.2.10.1 Theory and Practice

5.2.10.1.1 Construction of Core Goals

Guided by the goals of death education in Thanatology, comparisons of domestic and international death education curricula, and specific student needs identified in empirical research, this study argues that death education curricula should establish a four-dimensional goal system of "cognition-emotion-ability-value" to achieve deep integration of theory and practice and meet the learning needs of different majors and groups.

Cognitive Goals: These primarily include: systematically mastering the biological mechanisms, psychological principles, and sociocultural constructions of death; understanding differences in death narratives across civilizations and the historical evolution of Chinese death culture; dispelling the cultural misconception that "death = inauspiciousness" to establish a scientific cognitive framework for death; and clarifying medical criteria such as brain death standards and the process of organ failure in the terminal stage. For students aged 18–24, the focus is on consolidating basic concepts; for teachers, emphasis is placed on updating interdisciplinary knowledge systems and integrating them into teaching practice. The goal is to guide students in understanding the

dialectical relationship between death and life, addressing cognitive limitations caused by a lack of scientific guidance.

Emotional Goals: Through experiential teaching and an open classroom environment, death education curricula should alleviate students' death anxiety, cultivate a sense of reverence for life rooted in "living toward death," and eliminate fear of death. They should encourage students to freely express their feelings about death and develop a calm mindset. By introducing grief counseling theories and psychological support techniques such as mindfulness meditation and art therapy, the curriculum aims to enhance students' ability to manage grief, establish healthy patterns for processing bereavement emotions, respond to students' ambivalent emotional tendencies toward death-related topics, and strengthen psychological resilience and adaptability when facing death events.

Ability Goals: These are divided into general and professional dimensions. General ability goals require all students to master communication skills for death-related topics, basic crisis intervention methods, the ability to identify suicide signals and conduct initial interventions, and life skills such as grief coping and death dialogue needed by non-medical students. Professional ability goals specify that medical students must proficiently master hospice care practices and doctor-patient communication ethics; education students must acquire the ability to conduct campus grief group counseling; and through skill training and volunteer service practice, students in all majors should enhance their caregiving abilities for terminally ill individuals, promoting the transformation of knowledge into action.

Value Goals: The curriculum should guide students to establish a positive outlook on life amid conflicts between traditional and modern values, reshape the meaning of life through reflecting on death to plan life goals, and strengthen professional ethics in fields such as medicine. It aims to cultivate students' humanistic care in professional settings—such as medical workers' respect for patients' dignity and educators' attention to students' emotional needs—ultimately achieving comprehensive development through the integration of knowledge and action.

5.2.10.1.2 Design of Differentiated Goals

(1) Differentiated Goal Design for Different Professional Fields

Empirical research reveals significant differences in death cognition patterns among students with different disciplinary backgrounds. Students in humanities and social sciences tend to understand death through cultural symbolism, social construction, and philosophical speculation, focusing on the exploration of life meaning and ethical considerations. Students in natural sciences and engineering prefer approaching death from scientific, technical, and problem-solving perspectives, emphasizing biological mechanisms, technological applications, and quantitative analysis. Medical and nursing students focus on clinical practice, pathophysiology, and ethical norms, with an emphasis on mastering professional knowledge and skills. Education students focus on educational scenario applications, paying attention to students' mental health and group counseling. Therefore, goal design for different majors must align closely with disciplinary characteristics to ensure deep adaptation to students' professional thinking patterns. For example, curricula for humanities and social sciences should emphasize death culture and philosophical speculation, while those for natural sciences and engineering should focus on biological knowledge and technological applications. Specific differentiated goals for professional dimensions are presented as follows:

Table 5-1:
Differentiated Goal Design for Different Professional Fields

Major Field	Dimension	Goal Description
Humanities	Cognitive Goals	Understand death narratives across civilizations, master the historical evolution and cultural construction of death, and analyze the representation and reflection of death in literary and artistic works.
	Emotional Goals	Guide students to reflect on the meaning of life through literary works, encourage free expression of feelings about death, and foster a calm mindset.
	Ability Goalsl	Enhance students' critical thinking on death-related issues and master techniques for in-depth dialogue on death topics.
	Value Goals	Guide students to establish a positive outlook on life amid conflicts between traditional and modern values; reshape life meaning by reflecting on death to plan life goals, achieving "understanding life through contemplating death."
Social Sciences	Cognitive Goals	Master the sociocultural construction of death and understand the role of social support systems in responding to death events.
	Emotional Goals	Cultivate compassion and care for socially vulnerable groups, encourage participation in social practice, and focus on hospice care and grief counseling.
	Ability	Master social research methods, analyze the role of social policies in

	Goalsl	death-related issues, and acquire the ability to organize social support activities.
	Value Goals	Guide students to reflect on the meaning of death at the social level, focus on social equity and justice, and cultivate social responsibility and civic awareness.
	Cognitive Goals	Systematically master the biological mechanisms of death and the scientific principles of death-related technologies.
	Emotional Goals	Alleviate emotional alienation caused by excessive scientific rationality; cultivate humanistic reverence in scientific exploration (e.g., reflecting on life ethics in gene editing research).
Natural Sciences	Ability Goalsl	Master scientific research methods, conduct scientific analysis and research on death-related issues, and apply scientific knowledge to solve practical problems.
	Value Goals	Guide students to contemplate the meaning of life based on scientific cognition, cultivate scientific spirit and humanistic care, and respect life ethics and scientific ethics.
	Cognitive Goals	Understand the working principles and application boundaries of life-support equipment; master the application of engineering technology in the medical field.
	Emotional Goals	Guide students to view death rationally and establish emotional boundaries for technology application.
Engineering	Ability Goalsl	Master engineering design methods, apply engineering technology to solve medical problems, and participate in the research, development, and improvement of life-support systems.
	Value Goals	Focus on life ethics in engineering practice, form a "technology for good" value system in death intervention; cultivate the ability to balance life values under resource constraints (e.g., engineering optimization models for medical resource allocation).
	Cognitive Goals	Master the cognitive characteristics of students at different age stages and understand methods and skills of campus grief counseling.
	Emotional Goals	Eliminate educators' fear of teaching death-related topics, cultivate attention to students' emotional needs, and establish equal and respectful teacher-student relationships.
Education	Ability Goalsl	Master the design methods of life education courses, conduct campus grief group counseling, master basic crisis intervention methods, and identify suicide signals for initial intervention.
	Value Goals	Guide students to establish a positive outlook on life, plan life goals through reflecting on death, focus on students' emotional needs, and cultivate positive and healthy personalities.
	Cognitive Goals	Proficiently master hospice care practices and doctor-patient communication ethics; clarify medical criteria such as brain death standards and organ failure processes in the terminal stage; understand medical ethical issues such as euthanasia and patient autonomy.
Medicine/ Nursing	Emotional Goals	Maintain empathy and alleviate death anxiety and fear among medical students when facing death directly.
	Ability Goalsl	Proficiently master practical abilities in hospice care and doctor-patient communication ethics.
	Value Goals	Strengthen medical professional ethics, cultivate humanistic care in professional scenarios, and respect patients' dignity of life.

(2) Differentiated Goal Design for Different Grades: Progressive and Spiral Development

This study emphasizes that death education curricula should closely align with the stage-specific characteristics of students' cognitive development and diverse learning needs, constructing a progressively advancing and organically connected teaching system. To this end, the four-year undergraduate death education curriculum system is carefully designed into four levels, corresponding to (1) freshmen, (2) sophomores, (3) juniors, and (4) seniors, aiming to achieve a spiral deepening and enhancement of students' cognitive understanding, emotional attitudes, practical skills, and life values.

Freshman Year Stage: Goals of Cognitive Foundation, Psychological Adjustment and Cultural Deconstruction

The freshman year serves as a critical enlightenment period when students first engage systematically with death-related topics. Research data indicate that freshmen generally exhibit cognitive limitations, conceptual ambiguity, and consequent avoidance psychology toward death. To address this, the core of the goal system at this stage focuses on laying a scientific cognitive foundation, dispelling cultural myths, and establishing initial emotional adjustment abilities.

Sophomore Year Stage: Goals of Theoretical Foundation and Critical Thinking Cultivation

After acquiring basic cognition, students demonstrate a desire to break cultural taboos and understand the social construction of death. Some sophomores explicitly request courses to analyze the "historical evolution of death taboos" and conduct cross-civilization comparisons to achieve "demystification of death." In response, the goals for the sophomore year focus on constructing theoretical frameworks, deepening cultural understanding, and fostering critical thinking, guiding students to comprehend death-related issues at a deeper level.

Junior year Stage: Goals of Professional Integration, Practical Focus, and Skill Advancement

In the junior year, students have solidified their professional knowledge foundation and begin to focus on interdisciplinary integration and practical application. Empirical

results show that students generally desire practical, operable coping strategies, confirming the urgency for core skills such as grief counseling, hospice care, and suicide identification. Thus, the goals at this stage emphasize the integrated application of professional knowledge, focus on practical issues relevant to each major, and prioritize training students' practical skills in specific scenarios.

Senior Year Stage: Goals of Integrated Application, Career Connection, and Value Internalization

The senior year is a critical transitional period when students move from campus theoretical learning to social practice. Empirical research indicates that senior students are eager to apply their knowledge in real-world scenarios and expect to serve society and realize their own value in future careers. Therefore, the goals at this stage focus on promoting the integrated application of knowledge and the practical transformation of skills, laying a value foundation for students' future careers and lifelong development, and helping them transition from learners to practitioners.

5.2.10.2 Curriculum Content and Arrangement

To respond to the diverse needs for knowledge, emotion, ethics, and practice identified in research findings, as well as the necessity of addressing cultural challenges, this section systematically presents the design scheme for death education curriculum content. The core of this scheme lies in constructing a three-dimensional curriculum system of "grade stratification × professional adaptation × demand response," aiming to systematically build theoretical knowledge, effectively alleviate emotional dilemmas, cultivate ethical reasoning abilities, and comprehensively enhance practical skills.

Based on preliminary analysis, the curriculum content is structured around four core modules: cognitive exploration, emotional understanding, ethical deliberation, and practical application. It aims to fulfill students' thirst for knowledge in thanatology, provide emotional support, cultivate ethical judgment, and enhance practical skills within limited class hours. Meanwhile, the course design thoroughly considers the cognitive developmental differences among students across grade levels. Through a progressive learning process, it gradually deepens students' understanding of death-related issues, ultimately helping them establish a positive outlook on life and laying a foundation for

subsequent course implementation and continuous improvement. Below is a detailed introduction to the four modules:

Cognitive Exploration Module: This module aims to address students' insufficient scientific understanding of death, break cultural taboos, and form a scientific view of life and death. Based on students' strong demand to break cultural taboos, it focuses on learning about life and death from multicultural perspectives, helping students understand death through multiple dimensions such as biology, medicine, law, culture, and philosophy.

Emotional Understanding Module: Designed to respond to students' contradictory state of curiosity mixed with fear toward death, this module provides emotional and psychological support to help them manage death anxiety and grief, and enhance psychological resilience. Based on students' urgent need for grief emotion management methods, it emphasizes emotional experience, role-playing, narrative therapy, and discussion-sharing activities to promote emotional expression, psychological adjustment, value reshaping, and social participation.

Ethical Deliberation Module: Enhances critical thinking in death ethics, examining issues like autonomy, technological ethics, and social justice to foster ethical judgment. Rooted in reflections on structural inequalities surrounding death, this module employs ethical principle analysis, case discussions, and mock trials to deepen critical engagement with end-of-life issues.

Practical Application Module: Aims to develop students' practical skills and comprehensive competencies by applying theoretical knowledge to real-world scenarios. In response to students' strong demand for hands-on and experiential learning, this module focuses on practical activities, providing opportunities for participation in death story sharing, artistic creation, community service, and more. Through these experiences, students cultivate communication skills, empathy, creativity, and other comprehensive abilities when facing death.

5.2.10.2.1 Curriculum Content Modules and Credit-Hour Allocation (Stratified by Grade Level)

Based on the aforementioned differentiated design objectives for death education across academic years — where the freshman year focuses on cognitive foundation and cultural deconstruction, the sophomore year emphasizes deepening theoretical frameworks

and critical thinking, the junior year strengthens professional skill training and practical learning, and the senior year highlights practical application and career readiness — we have developed the following curriculum module and hour allocation plan.

This scheme aims to meet the specific needs of students at different developmental stages through a progressive learning process, thereby preparing them for their professional careers. The detailed curriculum plan is presented in Table 5-2.

Table 5-2:
Curriculum Content Modules and Credit-Hour Allocation (Stratified by Grade Level)

Module	**Total Hours**	**Freshman Year** (Cognitive Foundation/Emotional Adjustment)	**Sophomore Year** (Theoretical Deepening/ Cultural Deconstruction)	**Junior Year** (Skill Advancement/ Practice Focus)	**Senior Year** (Integrated Application/ Career Connection)
Cognitive Exploration	8 hours	Breaking Cultural Myths (6 hours) -Multi-dimensional definitions of death -Physiological processes in the terminal stage -Intergenerational dialogue on funerals	Theoretical Deepening (2 hours) - Deconstruction of death taboo culture	-	-
Emotional Understanding	10 hours	Safe Situational Experience (4 hours) - VR end-of-life experience - Grief narrative therapy	Meaning Exploration (4 hours) - Existential text analysis - Anxiety intervention for medical students	Grief Techniques (2 hours) - Campus grief counseling	-
Ethical Deliberation	6 hours	-	Debates on Controversial Issues (4 hours) - Ethics of resource allocation - Boundaries of technological ethics	-	Professional Ethics (2 hours) - Simulation of professional ethics application
Practical Application	16 hours	-	-	Skill Training (8 hours) - Ethics board games -Training in Grief Communication - Grief counseling design - Crisis intervention simulation	Career Transformation (8 hours) - Hospice volunteer service - Policy proposals -Interdisciplinary achievement exhibition
Total	40 hours	10 hours	10 hours	10 hours	10 hours

Module 1: Cognitive Exploration Module (8 Hours)

The design of this module is grounded in the following key considerations:

Addressing Identified Needs: To respond to the widely reported insufficiency in scientific knowledge concerning death and bereavement and the need for enhanced scientific guidance in this domain.

Integrating Student Needs: To address students' core requirements for the systematic deconstruction of death-related scientific knowledge and the exploration of associated socio-cultural taboos (i.e., "breaking cultural taboos").

This module aims to scaffold a systematic and comprehensive cognitive framework for understanding death, establishing an essential knowledge foundation for subsequent in-depth emotional engagement, value exploration, and ethical deliberation. The module is structured for 8 instructional hours.

The rationale for this duration is based on balancing the breadth and depth of content with the principles of student cognitive development:

Content Breadth and Depth: Module content encompasses multidimensional definitions of death (e.g., biological, legal, socio-cultural perspectives), the end-of-life phase within the life cycle, the process of dying (incorporating physiological and psychological dimensions), and cross-cultural variations in funeral practices and bereavement rituals. The inherent complexity and systemic nature of this multi-disciplinary content—integrating perspectives from biology, cultural studies, and sociology—necessitates sufficient instructional time. This allocation is crucial to prevent the fragmentation of knowledge presentation and to ensure the coherent construction of a knowledge framework.

Gradual Cognitive Development: Engaging with death-related topics, particularly those involving cultural taboos, requires adequate temporal space for students to comprehend, internalize, and critically reflect upon the concepts. The 8-hour structure is informed by considerations of cognitive load theory and the process of knowledge deepening. It is designed to provide a scaffolded, progressive learning pathway, enabling students to gradually establish a robust yet open knowledge structure. This preparation is vital for supporting subsequent, more profound emotional and ethical exploration.

The examples of specific curriculum content in cognitive exploration module is presented in Table 5-3.

Table 5-3:
Examples of Specific Curriculum Content in Cognitive Exploration Module

Grade	Content	Content Examples and Empirical Basis
Freshman	Analysis of Multi-dimensional Death Definitions	**Content examples:** - Biology: Brain death criteria (irreversible loss of whole brain function); - Cultural studies: Differences between Confucian "revering the deceased and honoring ancestors" and Taoist "following nature". **Basis:** Qualitative research results: Medical students demand "clarity on brain death criteria"; social science students inquire about differences between Confucian and Taoist views on death.
Freshman	Life Cycle and Physiological Processes in the Terminal Stage	**Content examples:** - Sequence of organ failure in the terminal stage (cardiopulmonary → brain function); - Physiological changes caused by different diseases. **Basis:** Qualitative research results: Nursing students explicitly request "explanations of the process of terminal organ failure"
Freshman	Intergenerational Dialogue Workshop on Funeral Culture	**Content examples:** - Comparing Chinese funeral rituals with Mexico's Day of the Dead; - Youth and elders discussing changes in funeral concepts. **Basis:** Qualitative research results: Students demand "historical evolution of death taboos and cross-civilization comparisons"; intergenerational taboos lead to student silence
Sophomore	Cultural Deconstruction of Death Taboos	**Content examples:** - Analyzing Confucian roots of the belief that "death = inauspiciousness"; - Critiquing the simplification of death symbols in games/films. **Basis:** Qualitative research results: Engineering students reflect on "games simplifying death into revivable symbols"; parents hold the view that "death-related topics are inauspicious"

Module 2: Emotional Understanding Module (10 Hours)

This module focuses on cultivating students' emotional experience and psychological adaptation skills regarding death. Its design is grounded in responding to core student needs-Addressing prevalent demands for death anxiety mitigation and grief emotion management, alongside navigating complex ambivalent emotional experiences when confronting death. To ensure psychological safety during instruction, a "safe word" protocol will be implemented to establish essential protective boundaries.

The 10-hour framework is structured according to inherent principles of affective learning and empirical student needs: (1) Depth and Process of Affective Processing. Profound affective responses to death including fear, anxiety, and grief extended temporal scaffolding for guided articulation, expression, and progressive resolution. A 10-hour

curriculum framework ensures that experiential and expressive teaching activities such as role-playing, narrative therapy, structured group discussions, and mindfulness exercises can be implemented systematically and comprehensively;(2) Guarantee for the Achievement of Teaching Objectives. The core goal of the aforementioned activities is to promote students' full recognition, safe expression, and effective alleviation of their own emotions. Sufficient teaching time serves as a critical prerequisite for achieving this in-depth emotional learning objective and preventing interventions from remaining superficial. Students' emotional responses to death, such as fear, anxiety, and grief, undergo a progressive process that involves "identification of death-related events → awareness of negative emotions → persistence of negative emotions → reinterpretation of death" (He, et al., 2016). The 10-hour curriculum framework provides a necessary temporal container for interventions at each stage.

The examples of specific curriculum content in emotional understanding module is presented in Table 5-4.

Table 5-4:
Examples of Specific Curriculum Content in Emotional Understanding Module

Grade	Content	Content Examples and Empirical Basis
Freshman	VR End-of-Life Experience and Safety Barrier Mechanism	**Content examples:** - Virtual experience of ICU scenarios (heart rate monitor alarms, family members' crying) - Mandatory pause rule (exiting the scenario by saying "pause") **Basis:** Qualitative research results: Students demand "safe words for VR experiences".
Freshman	Grief Narrative Therapy Training	**Content examples:** - Using "life memorial books" instead of traditional grief stage theories - Mapping the deceased's relationship networks to locate emotional anchor points **Basis:** Quantitative research reveals "grief management knowledge" is the weakest area; qualitative research identifies needs for grief counseling.
Sophomore	Existential Analysis in Literary Classics	**Content examples:** - Critique of "inauthentic life" in The Death of Ivan Ilyich - Application of Heidegger's "being-toward-death" in end-of-life scenarios **Basis:** Qualitative research results: Humanities students demand "exploring death through philosophical texts."
Sophomore	Intervention for Medical Students' Own Clinical Death Anxiety	**Content examples:** - Simulated scenario of announcing a patient's death -Writing personal emotional journals and conducting group sharing **Basis:** Qualitative research findings indicate that medical

		students experience fear and anxiety when facing death directly.
Junior	Campus Grief Counseling Techniques	**Content examples:** - Designing a "class memorial tree" planting ceremony - Teaching plan for the children's grief picture book Grandpa Becomes a Ghost **Basis:** Qualitative research results: Education students need to master "collective psychological support after student deaths."

Module 3: Ethical Deliberation Module (6 Hours)

The design of this Module (6 hours) focuses on deepening the cognitive understanding of death values. By implementing specialized and customized teaching (e.g., focusing on clinical medical ethics or engineering technology ethics respectively), this module aims to accurately respond to the differentiated ethical cognitive needs of students with different professional backgrounds.

The planning of 6 hours is mainly based on the complex ethical principles and controversial nature involved in death ethics issues. The module adopts an integrated teaching approach, combining teacher lectures with case analysis, simulated debates, and structured ethical reflection. It strives to effectively promote students' progressive transformation from ethical principles cognition to ethical judgment ability within the limited class hours.

The examples of specific curriculum content in ethical deliberation module is presented in Table 5-5.

Table 5-5:
Specific Class Hour Content Arrangement of Ethical Deliberation Module

Grade	Content	Content Examples and Empirical Basis
Sophomore	Practical Training on Resource Allocation Ethics	**Content examples:** - Using real ICU cases from Wuhan in 2020 - Designing priority levels based on Rawls' "difference principle" **Basis:** Qualitative research results: Students reject empty talk about "the preciousness of life" and demand exposure to real ethical dilemmas.
Sophomore	Debates on Professional and Technological Ethics	**Content examples:** - Medical students: Clinical boundaries of gene editing for life extension - Engineering students: Attribution of rights and responsibilities for AI end-of-life companion robots **Basis:** Qualitative research results: Engineering students tend to "deconstruct death through technical logic"; the natural science group focuses on technological ethics.

Senior	Simulation of Professional Ethics Application	**Content examples:** - Medical group: Simulating the allocation of rural hospice care beds - Engineering group: Simulating the optimal allocation of medical equipment **Basis:** Qualitative research results: Responding to students' demands on "how to allocate resources when they are limited" and matching professional ability goals.

Module 4: Practical Application Module (16 Hours)

This module responds to students' needs for "lightweight presentation" and "collaborative discussion," and fulfills the curriculum goal of "reshaping the meaning of life through contemplating death." It aims to enhance students' practical abilities and comprehensive literacy, enabling them to apply theoretical knowledge to practice.

The allocation of 16 hours is based on two main dimensions:(1) Systematic requirements of practical activities: The module includes diverse practical forms such as volunteer services, artistic creation, and community research. Their operational complexity and depth of reflection require sufficient class hours. The 16-hour framework conforms to the law of practical ability development, which follows the sequence of cognitive foundation-immersive experience-collaborative creation, ensuring students complete a full cycle from theoretical cognition to creative output. Insufficient class hours would significantly restrict the quality of reflection and the effectiveness of transforming practical results. (2) Sustained nature of comprehensive ability cultivation: The development of core competencies such as communication and coordination, empathic understanding, and creative thinking needs to be gradually internalized through continuous contextualized practice. The 12-hour duration provides students with a necessary cycle for practical iteration, allowing them to deepen ability construction through repeated practice-reflection cycles. This duration is the basic threshold supporting the substantial improvement of literacy.

The examples of specific curriculum content in life practice module is presented in Table 5-6.

Table 5-6:
Specific Class Hour Content Arrangement of the Life Practice Module

Grade	Content	Content Examples and Empirical Basis
Junior	Journey of Life Ethics Board Game	**Content examples:** - Draw scenario cards such as "Advanced Cancer" and "Discontinuation of Treatment" - Group negotiation on life-and-death decisions and recording ethical basis **Basis:** Qualitative research results: Students demand "understanding life-and-death ethics through gamified decision-making"; nursing students proposed the Journey of Life case.
Junior	Design of Grief Communication and Grief Counseling Training	**Content examples:** - Education group: Design of counseling programs for primary school students on pet loss - Medical group: Drills on delivering bad news using the SPIKES model **Basis:** Qualitative research results: Education students need to master "methods for managing students' grief emotions"; medical students demand "doctor-patient communication skills."
Junior	Simulation of Campus Crisis Intervention	**Content examples:** - Education group: Identifying students' suicide signals and class intervention procedures - Engineering group: Prototyping a suicide risk early warning APP **Basis:** Qualitative research results: Education students demand "guidance methods when students experience classmates' death"; engineering students proposed the need to "identify suicide signals."
Senior	Hospice Care Volunteer Service	**Content examples:** - Share insights after completing 20 hours of end-of-life companionship at partner institutions **Basis:** Qualitative Research Findings: Willingness to cooperate with communities proposed by educational administrator.
Senior	Death Education Policy Proposal	**Content examples:** - Analyze the issue of "vague policies leading to death education being disguised as ideological and political courses" - - Simulate the drafting of the Standards for the Certification of Death Education Teachers **Basis:** Qualitative research results: Teachers pointed out that "vague policies lead to teaching alienation"; there is a demand for establishing a teacher certification system.
Senior	Interdisciplinary Achievement Exhibition	**Content examples:** - Medical group: VR scenario drama on end-of-life pain management - Engineering group: Low-cost ECMO design prototype - Education group: Animation on children's cognitive development of death **Basis:** Qualitative research results: Medical students need "transformation of knowledge into action"; engineering students deconstruct life through technology; education students need K12 teaching resources.

5.2.10.2.2 Profession-Specific Differentiated Content Design

Empirical research indicates that students with different disciplinary backgrounds exhibit significant differences in their cognitive patterns toward death. Therefore, curriculum content must closely align with disciplinary characteristics and deeply adapt to

students' professional thinking modes. For instance, humanities and social sciences focus on cultural symbolism and philosophical speculation; science and engineering emphasize biological mechanisms and technological applications; medicine and nursing highlight clinical practice and skill integration; and education centers on educational scenarios and psychological counseling to build a campus mental health system.

To achieve effective alignment between curriculum goals and disciplinary thinking, this study has developed profession-specific distinctions in death education curriculum content. The differentiated content and empirical basis are shown in Table 5-7:

Table 5-7:
Profession-Specific Differentiated Content Design

Profession	Cognitive Characteristics (Qualitative Induction)	Curriculum Design Responses
Medicine/ Nursing	Focus on clinical ethics and skill integration	**Additional content in the Practice Module:** - Simulated conferences for end-of-life decision-making - Cultural sensitivity training in pain management
Natural Sciences/ Engineering	Emphasis on biological mechanisms and technological applications	**Additional content in the Ethics Module:** - Ethical boundaries of life-support equipment - Optimization of resource allocation algorithms
Education	Focus on educational scenarios and psychological counseling; attention to campus mental health systems	**Strengthened content in the Emotion Module:** - Techniques for class-based grief group counseling - Laws of children's cognitive development toward death
Humanities/ Social Sciences	Focus on cultural symbolism and philosophical speculation	**Additional content in the Cognition Module:** - Text analysis of The Death of Ivan Ilyich - Debates on existential views of life and death

5.2.10.3 Design of Curriculum Implementation stage

To ensure the effective delivery of the restructured curriculum framework, three strategic pillars are employed to address implementation barriers: innovative pedagogical models, institutional and resource support mechanisms, and societal perception transformation. The specific design is as follows:

5.2.10.3.1 Innovative Pedagogical Model: Constructing a Constructivist Experiential Learning Pathway

Grounded in constructivist theory, a progressive learning pathway of "Cognitive Exploration → Simulated Practice → Authentic Application" has been designed to address students' needs for both immersive experience and psychological safety. The corresponding instructional model is detailed in Table 5-8.

Table 5-8:
Curriculum Teaching Model Design

Phase	Implementation Strategies	Empirical Basis & Localized Design
Cognitive Exploration	- **Lectures + Multimedia Resources:** Utilizing animations and documentaries to explain thanatology concepts (e.g., end-stage organ failure processes, cross-cultural funerary rituals). - **Group Seminars + Case Analysis:** Structured debates around localized cases such as "Conflicts between Confucian Filial Piety and Palliative Care" and "Ethics of Ventilator Allocation."	- Addresses needs identified in qualitative research for "deconstruction of death-related scientific knowledge" and "practice-oriented ethical discourse." - Quantitative research indicates "grief and bereavement knowledge" as the weakest area, necessitating foundational reinforcement.
Simulated Practice	-**VR Immersive Scenarios:** Simulating ICU end-of-life situations, incorporating a "safe-word pause function" (e.g., utterance of "pause" exits the scenario). -**Role-Playing:** Conducting simulations for "Communicating Brain Death to Families" and "Suicide Intervention Dialogues," applying the SPIKES communication protocol (stepwise delivery of bad news).	- Aligns with student demand for "VR technology with psychological safeguards," mitigating emotional defense mechanisms around death topics. -Meets specific needs of medical students ("clinician-patient communication skills") and non-medical students ("crisis intervention in educational settings").
Authentic Application	- **Community/Hospital Service:** Medical students participate in pain management within hospice wards; non-medical students conduct "Life Story Interviews" with elders. - **Reflective Writing:** Composing "End-of-Life Companionship Journals" or designing "Class Memorial Tree" ritual proposals to facilitate emotional internalization.	-Achieves the core value objective of "reflecting on life through the lens of death," supported by quantitative findings that "death education enhances psychological resilience." - Enables transformation of "knowledge into actionable competence" through real-world engagement.

5.2.10.3.2 Institutional and Resource Support: Building a Multi-Level Support Network

Based on Ecological Systems Theory (EST), this strategy seeks to break down resource silos among universities, hospitals, and communities to address the dual challenges of "policy gaps" and "insufficient resource allocation." Detailed institutional and resource support recommendations are provided in Table 5-9.

Table 5-9:
Institutional and Resource Support Recommendations

Part	Implementation Strategies	Empirical Basis & Innovation
Curriculum Institutionalization	**-Inclusion in general education compulsory/elective systems:** Promoting universities to embed death education into "medical humanities" and "mental health" courses, and clarifying credit recognition standards. -**Policy Advocacy:** Leverage quantitative findings indicating "strong perceived lack of policy support" (M=2.46) to submit proposals (e.g., "Death Education Instructor Certification	-Addresses faculty concerns regarding "pedagogical ambiguity due to unclear policies", aligning with the "Institutional Design" component of the Kern curriculum model. -Establishes an evidence chain linking "Course Necessity - Societal Demand - Policy Recommendations".

	Standards") to education authorities.	
Resource Sharing Platform	-**Cross-Sectoral Collaboration:** Partner with Civil Affairs departments (accessing funeral home resources) and Health Commissions (accessing hospice facilities) to establish dedicated practicum sites. -**VR Technology Integration:** Centralize procurement of VR equipment and develop shared scenario libraries (e.g., "ICU Simulation", "Cross-Cultural Funerary Practices") for multi-institutional use.	-Resolves the "inadequate resource allocation mechanisms" identified in qualitative research. -Meets student preferences for "streamlined learning modalities".
Mesosystem Linkage	-**University-Hospital-Community Network:** -Medical Students: Conduct "Clinical Death Case Studies" in hospice hospitals (aligning with skill objectives). -Non-Medical Students: Practice "Bereavement Support" (e.g., end-of-life companionship for solitary elders) in community service centers.	-Mitigates faculty-reported "interdisciplinary collaboration barriers", enabling resource complementarity. -Quantitative data indicates medical students' practice needs are significantly greater than those of other disciplines.

5.2.10.3.3 Societal Perception Transformation: Dual-Pronged Approach to Cultural Taboos

Integrating the Health Belief Model (HBM) and the Theory of Planned Behavior (TPB), this strategy addresses the cultural conditioning of "death = bad luck/taboo" through three focal areas: faculty capacity building, family engagement, and public communication:

Table 5-10:
Societal Perception Intervention Strategies

Target Group	Implementation Strategies	Empirical Basis & Culturally Responsive Design
Faculty	-**Interdisciplinary Workshops:** Conduct collaborative lesson planning sessions (e.g., "Medical Ethics + Philosophical Inquiry") featuring ethicists modeling instruction on contentious topics. -**Specialized Certification:** Adding training modules such as "Cultural Translation Techniques for Death Metaphors" and "Cross-Cultural Mediation Strategies for Intergenerational Conflicts," and issuing special certification qualifications for "Cultural Competence in Death Education."	-Addresses student demands for "faculty competency in interdisciplinary integration." -Mitigates instructor-reported barriers of "lack of teaching confidence."
Families	-**Intergenerational Dialogue** Workshops: Engage parents in discussions on "Evolving Funeral Practices" (e.g., comparing Chinese and Mexican death rituals), substituting sensitive terms like "funeral" with "life passage rituals." -**Family Narrative Guidebook:** Distribute "How to Discuss Death with Children" manuals to dismantle	-Transforms resistance from "parental cultural opposition" identified in qualitative research. -Cultural competence frameworks necessitate "reconceptualization using indigenous terminology."

	notions of "bad luck."	
General Public	-**Death Cafés:** Host community tea gatherings featuring hospice caregiver narratives to propagate the concept that "death education reduces anxiety." -**Media Advocacy:** Produce documentaries (e.g., "Within Life") showcasing university student hospice volunteering cases to reshape societal perceptions.	-Counters fears of "social backlash." -Quantitative data identifies "cultural taboos" as the second most significant barrier, underscoring the need for public education.

5.2.10.4 Construction of Curriculum Evaluation System

This evaluation system is committed to constructing a full-cycle, multi-dimensional curriculum quality monitoring mechanism, aiming to systematically assess students' learning outcomes and curriculum implementation effectiveness. Its design is deeply aligned with the four core curriculum goals (cognition, emotion, ability, value) and strictly follows the "assessment-revision" cyclic logic of the Kern Curriculum Development Model. It also responds to the demands for transforming into a diversified evaluation paradigm proposed in qualitative research (e.g., reflective reports, situational assessments, multi-subject feedback).

By integrating formative evaluation mechanisms, summative assessments based on pre-test-post-test comparisons, dynamic feedback systems, and specialized cultural adaptation evaluations, this system enables dynamic tracking of learning outcomes and curriculum quality, precise identification of improvement paths, and continuous optimization of teaching content and strategies.

5.2.10.4.1 Integration of Formative Evaluation and Summative Evaluation

(1) Formative evaluation

Focuses on cognitive development, changes in emotional values, and ability improvement during the learning process.

Classroom participation: Observing students' enthusiasm in activities such as discussions, case analyses (e.g., ethical cases of "choices between Confucian filial piety and hospice care"), and role-playing (e.g., simulation of "communicating with families about brain death"), as well as the clarity of their viewpoints and the ability to listen to and respect others' opinions.

Reflective writing: Students regularly write reflective diaries following a progressive path of "low-sensitivity topics → in-depth narration" (e.g., transitioning from "pet passing" to "relatives' end-of-life period"). Through reviewing these diaries, teachers evaluate students' internalization of knowledge, changes in emotional experience, and depth of reflection on the meaning of life, responding to the constructivist reflection link and the demand for student narratives in qualitative research.

Performance in VR scenario simulation: In VR end-of-life scenario simulations, observing students' empathy, attention to the needs of patients/families, ability to apply communication skills, and adaptability under stressful situations, so as to meet students' demand for VR experiences with "safety barriers."

Group cooperation projects: Evaluating the quality of students' group research, collaborative discussions, report writing, and presentations on death education topics (e.g., "death culture research report," "ethical board game design," "grief counseling plan design"). This responds to students' demand for "collaborative discussions" and the cross-system task design in ecological system theory.

(2) Summative evaluation

Systematically assesses students' comprehensive improvement in knowledge, attitude, ability, and value dimensions at the end of the course.

Standardized scale assessment (pre-test vs. post-test): Before and after the course, standardized measurements are conducted using validated Chinese-version scales to quantify the effect of curriculum intervention:

Death Attitude Profile-Revised (DAP-R): Evaluates changes in students' attitudes toward dimensions such as "fear of death," "death avoidance," "natural acceptance," "approach acceptance," and "escape acceptance," responding to students' needs for reducing death anxiety and learning grief coping strategies.

Coping with Death Scale (CDS): Assesses improvements in students' abilities in dimensions including "ability to communicate about end-of-life/death," "self-acceptance of death," "ability to handle post-death affairs," "self-efficacy in death coping," "ability to perceive and express one's own death-related emotions," and "ability to reflect on life,"

addressing students' needs for death anxiety intervention, grief emotion management, and crisis response.

Frommelt Attitudes Toward Care of the Dying Scale, Form B (FATCOD-B): Evaluates changes in medical and nursing students' recognition of "attitudes toward caring for terminally ill patients" and "patient-centered care philosophy," responding to their needs for hospice care practical skills and professional ethics.

Knowledge test: Through multiple-choice questions, short-answer questions, etc., assess students' mastery of core concepts in thanatology, ethical principles, and relevant laws and regulations. This responds to the demands in qualitative research for deconstructing scientific death knowledge and breaking cultural taboos. Results of the knowledge test will be analyzed in combination with pre-test and post-test data from scales to form a more comprehensive assessment of cognitive level.

Practical skill assessment: Medical/nursing majors: In simulated clinical scenarios, assess their ability to apply professional knowledge and communication skills, aligning with the goal of hospice care practical skills; Non-medical majors: Through situational simulations (e.g., initial intervention for identifying suicide signals, grief companionship dialogues), assess their ability to apply basic crisis intervention methods, grief coping strategies, and other life skills, which aligns with the general ability goals.

Assessment of life meaning cognition and value internalization: Students write final papers or reflective reports to elaborate on their cognitive changes toward life and death, the process of value reconstruction (e.g., establishing the awareness of "being-toward-death" and reverence for life), and how they apply what they have learned to personal life or future careers. This responds to the goal of "reshaping the meaning of life through contemplating death." The assessment focuses on the depth of discussion, logical coherence, sincerity of reflection, and positive changes in values.

5.2.10.4.2 Establishment of Dynamic Feedback Mechanism

Based on the cyclic logic of "assessment-feedback-revision" in the Kern model, real-time and continuous feedback channels are constructed to drive curriculum optimization.

Real-time feedback channels: Anonymous online questionnaires, in-class instant feedback tools (e.g., Rain Classroom), and inter-class communication are used to collect students' real-time feelings and suggestions on curriculum content (theoretical depth, case relevance), teaching methods (VR experience effectiveness, interactivity of discussions), teaching resources, and assessment methods. This responds to the demand for establishing a timely feedback mechanism proposed in qualitative research.

Semi-structured in-depth interviews: After the course, representative students are selected for semi-structured interviews (in line with qualitative research methods), focusing on: emotional responses when approaching death-related topics (e.g., anxiety, fear, relief), perception of the safe classroom atmosphere, and changes in psychological resilience; evaluations of module settings, theoretical input, practical activities (volunteer services, ethical board games), localized cases (Confucian filial piety), and resource utilization; specific suggestions for content addition/deletion, method innovation, resource supplementation, and assessment optimization.

Regular feedback analysis and curriculum iteration: Quantitative data (scale results, test scores) and qualitative feedback (open-ended questionnaire responses, interview texts) are systematically collated and analyzed to identify curriculum strengths, weaknesses, and changes in student needs (e.g., emerging cultural issues, social hotspots). Based on feedback and social demands, curriculum content is dynamically adjusted: updating case libraries (incorporating the latest ethical controversies), supplementing cutting-edge theories (e.g., ethics of new technologies), optimizing teaching methods (adjusting the difficulty of VR scenarios), and developing new resources (e.g., cross-cultural death ritual VR resource packs).

Teacher-student collaborative optimization is encouraged: student curriculum advisory groups are established, and activity plans are co-designed, forming a continuous optimization cycle and culture of "assessment-feedback-improvement," which aligns with the concept of continuous improvement and dynamic adjustment in qualitative research.

5.2.10.4.3 Cultural Adaptation Assessment

"Cultural adaptation" is designated as a core assessment indicator, responding to the macrosystem of Ecological Systems Theory and cultural barriers identified in

qualitative research, thereby ensuring the curriculum is deeply embedded in the Chinese cultural context.

Effectiveness of localized cultural case instruction: Assess students' depth of comprehension, critical reasoning capacity, and outcomes of value alignment regarding culturally distinctive local cases, such as "conflicts between Confucian filial piety and modern hospice care" and "evolution of Chinese funeral rituals." This responds to strategies of symbolic translation and value connection.

Performance in discussions on culturally sensitive issues: Observe whether students demonstrate cultural respect, avoid biases, and engage in rational discourse when addressing topics involving cultural differences or taboos (e.g., euthanasia, organ donation, end-of-life rituals across religions), in alignment with cultural competence theory.

Feedback on parental/societal acceptance: Collect perspectives on parents' and community representatives' acceptance and evaluations of curriculum content and teaching approaches through home-school communication (e.g., feedback forms from "family death dialogue workshops"), community events (e.g., "death education open days"), or specialized questionnaires. This addresses concerns about parental cultural sensitivity highlighted in qualitative research.

5.2.10.5 Summary

Grounded in robust theoretical frameworks and comprehensive empirical research, this study establishes a culturally adaptive death education curriculum framework for higher education in mainland China, fully achieving Research Objective 7. By constructing four-dimensional objectives (cognitive, affective, skill-based, values-based), designing stratified and discipline-specific content, innovating constructivist pedagogical approaches, and establishing a multi-tiered support infrastructure, this research not only delivers actionable strategies for implementing death education in Chinese universities but also underscores the critical importance of faculty development and sociocultural perception transformation.

Furthermore, the study advocates for implementing a multifaceted evaluation system and dynamic feedback mechanism to ensure continuous curricular refinement, ultimately advancing its core mission: enhancing students' life values, mitigating death

anxiety, and strengthening coping competencies. These outcomes provide a comprehensive, implementable blueprint for scaling death education within mainland China's higher education landscape. Subsequent phases will involve pilot implementation studies to empirically validate the framework's efficacy in authentic teaching contexts, thereby refining and disseminating this socially vital curriculum system.

5.3 Curriculum framework Implementation Experiment and Results

5.3.1 Research Participants and Grouping Scheme

This study conducted a pilot implementation of a death education course at the School of Medicine and School of Education of University D from March to August 2025, adopting a discipline-specific and phased rollout strategy that covered both medical and educational disciplines. The participants focused on sophomore and junior undergraduate students. Students at this stage are in the early adulthood phase of cognitive maturation, possessing both the abstract thinking and contextual comprehension skills required to understand death education courses (Piaget, 1976), while avoiding the high attrition risks associated with the freshman adaptation period and senior internship phase, thereby ensuring intervention continuity.

The selection of medical and education majors was based on clear domain typicality: medical students face high-frequency exposure to death, while education students bear the responsibility of life-and-death education, making both groups demonstrate significant demand for death education.

Participants were recruited through multiple channels, strictly adhering to ethical principles of voluntariness, anonymity, and informed consent. Recruitment exceeded targets within 48 hours of initiation, with most participants showing strong learning motivation. The screening process consisted of two stages: initial screening excluded individuals with history of major physical/mental illnesses, prior systematic death education training, or inability to participate fully; secondary screening employed the Symptom Checklist-90 (SCL-90) (Derogatis, 1975) to exclude psychologically unstable participants (total score <160 with all factor scores <2). Ultimately, 160 valid samples were included, comprising 80 medical majors and 80 education majors.

Group allocation utilized stratified randomization (Sedgwick, 2013) with major as the core stratification variable, and gender and grade as secondary variables. Block randomization (block length=8) was implemented using SAS 9.4 PROC PLAN procedure. Four final groups were formed: medical experimental group, medical control group, education experimental group, and education control group, with 40 participants each and a 1:1 ratio between experimental and control groups.

5.3.2 Intervention Design

This study utilized a quasi-experimental design to examine the impact of the death education curriculum on the death attitudes and coping abilities of medical and education students through a rigorously controlled intervention protocol. The intervention design fully considered control of extraneous variables, ethical norms, and professional adaptability, as detailed below:

5.3.2.1 Experimental Design and Variable Control

To ensure experimental validity, this study implemented multiple variable control measures:

Between-Group Balance Control: Balance between experimental and control groups on variables such as major, grade, and gender was achieved through stratified random allocation. Group sizes matched the natural class sizes within the school (40 per major), ensuring ecological validity.

Temporal Variable Control: Both groups followed identical course durations (10 weeks), session lengths (2 theoretical hours + 1 practical hour per week), and total instruction hours (30 hours), avoiding interference from time factors.

Instructional Staff and Teaching Method Control: The same teaching team (led by the researcher) conducted all sessions for all groups, ensuring unified teaching standards and evaluation criteria; teaching formats remained consistent (lectures, seminars, simulations, etc.), with intervention differentiation achieved solely through content differences.

Content Isolation Principle: The experimental group received a structured death education curriculum covering core themes such as end-of-life care and grief counseling;

the control group received a standardized mental health curriculum, strictly excluding death, grief, and related ethical topics, focusing only on neutral content such as stress management and communication skills.

Blinding Implementation: A single-blind design was used, where participants were unaware of their group assignment and the research purpose; instructors were not involved in data collection or result analysis to reduce expectancy effects.

5.3.2.2 Ethical Safeguards and Equity Handling

This study ensured ethical compliance and inter-group fairness through the following measures:

Ethical Compensation Mechanism: Control group students were offered free access to a condensed version of the death education course upon study completion; a 3-month follow-up support group was established, providing online Q&A sessions with certified psychological counselors.

Attrition Handling Protocol: For participants experiencing psychological discomfort during the intervention (based on dynamic SCL-90 monitoring), an exit procedure was initiated after assessment by two independent researchers, offering free referrals for psychological counseling; data already collected were included in the intention-to-treat (ITT) analysis.

Informed Consent and Privacy Protection: All participants signed informed consent forms; data collection used anonymous codes, strictly protecting personal information.

5.3.2.3 Professionally-Adapted Course Content and Implementation

Course content was constructed based on the theoretical framework from Chapter 4, with implementation processes designed separately for each major:

(1) Education Major Curriculum (Detailed schedule see Table 5-11)

Module Design:

Cognitive Exploration: Analysis of Death Taboo Culture (Week 1)

Emotional Understanding: Identifying Grief Emotions in Educatees and Classroom Group Counseling (Weeks 2-4)

Ethical Deliberation: Ethical Decision-Making in School Settings Regarding Life and Death (Weeks 5-6)

Practical Application: Grief Support and Crisis Intervention Skills Training (Weeks 7-10)

Differentiated Instruction:

Sophomores: Focus on basic theory (Cognitive and Emotional modules)

Juniors: Having lacked prior systematic death education, a "Basic Remediation + Advanced Progression" model was used, adding advanced content such as grief activity design, ethical board games, and crisis intervention simulations.

Teaching Methods: Integrated theoretical lectures, VR experiences, role-playing, board game simulations, and campus practice simulations.

Control Group Curriculum Schedule: The control group received a time-matched mental health alternative intervention focused on stress management techniques, general interpersonal communication strategies, and emotion regulation methods, strictly avoiding death, grief, and related life ethics issues throughout to exclude interference from the core intervention variable.

(2) Medical Major Curriculum (Detailed schedule see Table 5-12)

Module Design:

Cognitive Exploration: Recognizing Death Taboos in Clinical Settings (Week 1)

Emotional Management: Self-Awareness of Emotions in End-of-Life Scenarios (Sophomores), Empathy for Patient and Family Grief (Juniors) (Weeks 2-4)

Ethical Deliberation: Analysis of Ethical Dilemmas in Palliative Care (Weeks 5-6)

Practical Application: Death Notification Skills, Crisis Intervention Simulations (Weeks 7-10)

Differentiated Instruction:

Sophomores: Focus on basic theory (Cognitive and Emotional modules)

Juniors: Having lacked prior systematic death education, a "Basic Remediation + Advanced Progression" model was used.

Clinical Integration: Arranged field observations and skill practice in clinical settings such as palliative care units and ICUs to strengthen practical connections.

Teaching Methods: Combined theoretical lectures, standardized patient role-playing, ethical debates, and VR end-of-life scenario simulations.

Control Group Curriculum Schedule: The control group participated only in routine medical student communication training, content limited to basic doctor-patient communication skills, strictly avoiding core topics such as palliative care, death education, and grief support throughout.

Table 5-11:
Core Modules and Implementation Summary for Education Major Intervention Course

Course Theme	Module	Objective	Key Topics/Content	Teaching Methods	Session	Target Grade/ Major	Instructor
Questions of Life and Breaking Death Taboos	Cognitive Exploration	Help education majors overcome avoidance of death-related topics and systematically master the core characteristics and influencing mechanisms of death taboo culture.	Avoidance of death topics in educational settings; impact of death taboo culture on adolescents' death cognition; design differences in death-related topics in Chinese and foreign life education courses; views on death in Confucianism, Buddhism, Taoism, and Western religions.	Lecture + Case Studies + Cross-Cultural Course Comparison	Week 1	Year 2/3 Education Majors	Researcher
Understanding and Empathy Towards Students' Feelings About Death	Emotional Management	Deeply understand the patterns of emotional development regarding death in students of different ages and establish precise empathetic cognition.	Analysis of stage characteristics in students' emotional response to death; comparison of bereavement emotions across different educational stages; techniques for identifying implicit manifestations of death anxiety.	Theory Lecture + Case Analysis	Week 2	Year 2/3 Education Majors	Researcher
Class Grief Group	Emotional Management	Systematically learn grief theories and elements of group	Basic grief theory; core elements of class group support; demonstration of	Theory Lecture + Technique	Weeks 3-4	Year 3 Education Majors	Researcher

Support and Activity Design		support, and master methods for designing class grief activities.	verbal and non-verbal care techniques; framework for class grief activity design and case studies across different educational stages.	Demonstration + Case Analysis			
Ethical Judgment in Death-Related Situations	Ethical Reflection	Enhance students' ability for ethical analysis and judgment in complex death-related issues, and understand educators' responsibilities when facing life-and-death situations.	Ethical role of teachers in responding to student death; educators' grief adjustment; boundaries and intervention principles of death education; guidelines for teaching adjustments during periods of grief.	Lecture + Case Analysis	Weeks 5-6	Year 2/3 Education Majors	Researcher
Practical Training on Campus Life Ethics Decision-Making	Practical Application	Improve judgment and decision-making skills regarding life ethics issues in educational settings through ethical board game experiences.	Hands-on ethical board game practice (focusing on ethical judgment scenarios like campus death discussions, e.g., age-appropriateness standards for VR life-and-death experiences); case review and ethical guideline extraction.	Board Game Experience + Case Review + Group Discussion	Week 7	Year 3 Education Majors	Researcher
Grief Communication and Class Counseling Practice	Practical Application	Master core grief communication techniques in educational settings, learn to design grief counseling plans tailored to class needs, and strengthen comprehensive grief support capabilities.	Basic grief communication techniques; simulated dialogues for student bereavement scenarios; framework for class grief counseling plans and case analysis.	Technique Explanation + Scenario Simulation + Case Analysis	Weeks 8-9	Year 3 Education Majors	Researcher
Campus Death Crisis Intervention Drill	Practical Application	Familiarize with intervention procedures for death-related crisis events on campus and enhance rapid response and support capabilities in emergency situations.	Types and intervention principles of campus death-related crisis events; simulation of crisis scenarios like student suicide and peer accidents; intervention process drills and emergency plan refinement.	Principle Explanation + Crisis Simulation + Process Drill	Week 10	Year 3 Education Majors	Researcher

Table 5-12:
Core Modules and Implementation Summary for Medical Major Intervention Course

Course Theme	Module	Objective	Key Topics/Content	Teaching Methods	Session	Target Grade/ Major	Instructor
Understanding Death Taboos in Clinical Settings	Cognitive Exploration	Help medical students overcome avoidance of death-related topics in clinical practice, analyze the impact of taboo culture on doctor-patient communication, and enhance their ability to address death-related issues.	Typical manifestations of death taboos in clinical settings; impact analysis of death taboos on building doctor-patient trust; psychological characteristics of taboo in family members of different patient groups; communication strategies for deconstructing death taboos from a medical ethics perspective.	Clinical Case Discussion + Group Case Analysis	Week 1	Year 2 Medical Majors	Researcher
Self-Emotional Awareness and Regulation in End-of-Life Scenarios	Emotional Management	Identify personal emotional responses and psychological defense mechanisms when facing death, and establish constructive emotional regulation methods.	Physiological and psychological manifestations of death anxiety; common types and causes of grief reactions in medical students; VR end-of-life scenario emotional experience and self-awareness exercises.	VR Experience + Emotional Journaling + Group Sharing	Weeks 2-3	Year 2 Medical Majors	Researcher
Empathy and Emotional Support in Doctor-Patient Grief	Emotional Management	Understand the emotional needs of patients and their families regarding grief, and develop emotional empathy and support skills in doctor-patient communication.	Emotional response principles in the SPIKES model; techniques for identifying patient bereavement emotions; empathy expression exercises in doctor-patient grief dialogues.	Case Analysis + Emotional Simulation Experience + Feedback Guidance	Week 4	Year 3 Medical Majors	Researcher
Analysis of Ethical Dilemmas in Palliative Care	Ethical Reflection	Enhance recognition and analytical skills regarding ethical dilemmas in palliative care.	Core principles of medical ethics; typical ethical controversy cases in palliative care; comparison of multicultural ethical perspectives.	Multicultural Case Analysis + Ethical Debate	Weeks 5-6	Year 2 Medical Majors	Researcher
Practical Training in Medical Ethical Decision-Making	Practical Application	Develop ethical decision-making and protocol design skills in palliative care contexts.	Simulated group consultations for Do-Not-Resuscitate (DNR) decisions; resource allocation protocol development; ethical boundary management strategies.	Ethical Scenario Simulation + Decision Protocol Evaluation	Week 7	Year 3 Medical Majors	Researcher
Doctor-Patient Communication and Death Notification	Practical Application	Enhance students' communication skills in end-of-life notifications, empathetic expression, and grief accompaniment.	SPIKES model training, death notification techniques, family conflict situations and handling skills	Role-Playing + Communication Drills + Group Reading	Weeks 8-9	Year 3 Medical Majors	Researcher

Medical Crisis Intervention Simulation	Practical Application	Improve emergency communication skills, family consolation techniques, and team psychological support capabilities in sudden medical crises.	Family consolation drills in sudden medical incidents; designing post-crisis psychological support mechanisms for healthcare teams.	Standardized Patient Simulations + Team Collaboration Exercises	Week 10	Year 3 Medical Majors	Researcher

5.3.2.4 Evaluation Design and Data Collection

Assessment Tools: Utilized Chinese versions of the DAP-R, CDS (common to both majors), and FATCOD-B (medical major only) scales.

Assessment Time Points: Pre-test (1 week before intervention), Post-test (1 week after intervention completion)

Qualitative Data: Collected course feedback through semi-structured interviews, achieving triangulation of quantitative and qualitative data.

5.3.3 Measurement Tools and Data Collection

5.3.3.1 Quantitative Measurement Tools

To comprehensively evaluate the intervention effects of the death education curriculum, this study employed standardized scales with rigorous reliability and validity testing as quantitative measurement tools, as follows:

(1) Common Measurement Tools:

Chinese Version of the Death Attitude Profile-Revised (DAP-R): This study used the Chinese version of the Death Attitude Profile-Revised (DAP-R), originally developed by Wong et al. (1994), translated by Liao Fangjuan (2000), and cross-culturally adapted by Tang Lu (2013), to assess changes in subjects' death attitudes before and after the experiment. The scale includes five core dimensions: Fear of Death, Death Avoidance, Neutral Acceptance, Approach Acceptance, and Escape Acceptance, totaling 32 items. Data were collected using a Likert scoring method to quantify students' cognitive and emotional tendencies towards death.

Chinese Version of the Coping with Death Scale (CDS): This study used the Chinese version of the Coping with Death Scale (CDS) translated by Zheng et al. (2021) to assess changes in subjects' death coping abilities before and after the experiment. The scale focuses on students' practical coping abilities regarding death issues, covering six dimensions: ability to communicate with others about dying or death, ability to accept one's own death, ability to handle affairs after death, ability to cope with death, ability to perceive and express one's own death, and life examination ability, totaling 28 items. A Likert scoring method was used to evaluate students' cognitive, emotional, and behavioral coping levels in death-related situations.

(2) Medical Major Specific Tool:

Chinese Version of the Frommelt Attitude Toward Care of the Dying Scale Form B (FATCOD-B): This study uses the Chinese version of the FATCOD-B scale, which was revised by Wang (2016) based on the Frommelt Attitude Toward Care of the Dying (FATCOD) developed by Frommelt (1991).This scale is specifically used to measure medical students' attitudes towards caring for dying patients. It contains 30 items, assessing both positive care attitudes (e.g., "Care for the dying person is a worthwhile experience") and negative avoidance attitudes (e.g., "I would not want to care for a dying person"), reflecting students' palliative care cognition and professional responsibility awareness.

(3) Reliability and Validity Test Results:

To ensure the scientific rigor and applicability of the measurement tools, this study conducted a pre-test assessment of the reliability and validity of the aforementioned Chinese versions of the scales using stratified sampling.

In terms of reliability: The Cronbach’s α coefficients for the total scales were as follows: FATCOD-B 0.802, DAP-R 0.825, and CDS 0.911. The lowest subscale α coefficient was 0.732 (from the CDS), with all values meeting standard psychometric thresholds. Test-retest reliability assessed over a two-week interval demonstrated good stability across all scales: CDS r=0.968, FATCOD-B r=0.963, and DAP-R r=0.818.

Regarding validity: Exploratory factor analysis was conducted on each independent sample. The KMO values for all scales exceeded 0.81 (CDS: 0.890, DAP-R: 0.900,

FATCOD-B: 0.820), and Bartlett's tests of sphericity were significant ($p < .001$). The cumulative variance explained was 61.000% for the CDS, 55.906% for the DAP-R, and 55.800% for the FATCOD-B, indicating satisfactory construct validity. Content validity was also supported (CDS: S-CVI=0.985; FATCOD-B: CVI=0.91; DAP-R: item–dimension correlations ranging from r=0.555 to 0.828). (Detailed procedures and complete data are provided in the Research Methods section, Chapter 3.)

5.3.3.2 Qualitative Interview Tools

To complement the limitations of quantitative data and gain an in-depth understanding of students' course experiences and subjective feelings, the study employed semi-structured interviews to collect qualitative data. The interview guide included six core modules:

The module on course content focused on the reasonableness, clarity, completeness, and relevance to the major of the course content; the teaching methods module focused on students' evaluations of teaching methods, teacher performance, and interactive sessions; the emotional experience module explored emotional changes and challenges during the learning process; the personal growth and gains module assessed the positive impact of the course on students' cognition and abilities; the course improvement suggestions dimension primarily collected students' optimization opinions regarding course content, activities, and implementation. Additionally, open-ended questions were provided to invite students to share other feelings and expectations. The specific interview guide is provided in Appendix 7.

Regarding reliability and validity, the semi-structured interview tool in this study ensured reliability and validity through multiple measures. For reliability assurance, a pilot test was conducted before formal interviews, inviting 2 students from different majors to test the interview guide, focusing on evaluating question clarity, content relevance, and procedural fluency. Based on feedback, question wording (e.g., simplifying professional terminology) and sequence were optimized to ensure logical coherence and effective collection of core information. Coding consistency check employed a "delayed double-coding method": two weeks after initial coding, the researcher performed a second independent coding on 20% of the interview transcripts based on a unified coding manual. Comparing the results using NVivo software, the test-retest consistency coefficients for core categories (emotional experience, course feedback, improvement suggestions) all

exceeded 0.85, with the improvement suggestions dimension reaching 0.92, indicating stable and reliable coding standards. For the few items with coding discrepancies, independent review and correction were conducted by referring back to interview recordings and the coding manual to ensure accuracy. A detailed audit trail was maintained, covering the design and revision process of the interview guide, pilot test feedback and adjustment records, participant recruitment criteria and basic information, interview recording transcription and anonymization steps, coding manual details, original results of the two coding, and explanations for handling discrepancies, fully presenting the research process to ensure traceability.

In terms of validity strengthening, the interview protocol underwent a blind review by three experts in the field of death education. It was evaluated based on dimensions such as question coverage and professional appropriateness, achieving a content validity index (CVI) of 0.93, which ensures the questions are highly aligned with the research objectives. A "data-theory" triangulation approach was adopted, cross-validating the themes of course experiences derived from interviews with quantitative results from the DAP-R and CDS scales to enhance the robustness of the conclusions. Through a member checking mechanism, approximately 10% of the interviewees were selected to review the transcribed texts and preliminary analysis results. They were invited to verify the accuracy of the content and provide additional insights, and revisions were made based on their feedback to correct transcription errors and interpretive biases. Throughout the study, a reflexive journal was maintained, meticulously documenting the researcher's subjective stance (such as presuppositions about the course's value) and personal experiences that might influence data interpretation. By regularly reviewing the journal, potential biases in the analytical process were scrutinized to ensure transparency and objectivity in the research process.

5.3.3.3 Data Collection Procedures

(1) Quantitative Data Collection

Administration Time: Pre-tests were completed 1 week before the course intervention began, and post-tests were conducted within 1 week after the intervention ended, ensuring data timeliness and comparability between and within groups.

Administration Method: Uniform paper questionnaires were used, with each questionnaire taking approximately 15-25 minutes to complete. Research assistants, trained

to a standard, distributed and collected questionnaires on-site, using unified instructions to standardize the response process and avoid compromising data objectivity.

Data Screening: Invalid questionnaires were strictly excluded, including those with missing values >20%, patterned responses, or logical contradictions, ensuring the reliability of the analysis foundation.

(2) Qualitative Data Collection

Interviewees: Students were selected through stratified random sampling from both the experimental and control groups. Based on the principle of data saturation, the final number of interviewees was set at four per group, resulting in a total of 16 participants across the four groups. This approach ensured sample diversity and captured experiential differences among various subgroups.

Implementation Method: Face-to-face semi-structured interviews were conducted, each lasting 30-45 minutes, recorded and transcribed verbatim. The interview process strictly followed the principles of voluntary participation, anonymity, and confidentiality, protecting participants' privacy and rights.

(3) Data Quality Control

In quantitative data management, a "double independent entry + logical verification" mechanism was adopted: after the first round of data entry by the researcher, a second independent entry was performed after a 72-hour interval. The "Data Compare" function in SPSS 26.0 was used to compare the two entry results, and discrepancies were checked item-by-item against the original questionnaires for correction, ensuring entry accuracy. A standardized coding manual was developed to unify variable definitions and entry rules, and a complete data processing log was maintained, detailing entry, cleaning, and preprocessing steps to ensure traceability of the statistical analysis process.

In the processing of qualitative interview data, a "three-stage verification with delayed review" procedure was adopted: First, a coding framework was constructed based on the research objectives, and initial coding and theme extraction were performed on the transcribed texts. After an interval of one week, the researcher revisited the original interview recordings and the coding manual to recode 20% of the samples. A test-retest consistency check was conducted (core theme consistency > 0.85) to ensure the stability of

the coding criteria. Finally, cross-verification was carried out by integrating quantitative data results, strengthening the credibility and explanatory power of the qualitative findings through iterative data-conclusion verification. Throughout the study, coding decisions and reflective logs were meticulously documented to ensure a transparent presentation of the analytical process and reduce subjective bias.

5.3.4 Quantitative Data Analysis Results

5.3.4.1 Death Attitude (DAP-R) Intervention Effects

5.3.4.1.1 Score for Each Item of the Scale in Control and Experimental Groups Before and After Intervention

Before the intervention, the mean score distributions of the experimental and control groups for both education and medical majors on the 32 items of the DAP-R scale showed high consistency (education major mean range 3.16~3.18, medical major mean range 3.15~3.17, maximum standard deviation difference 0.03). This high level of baseline homogeneity not only ruled out the confounding effect of professional background on initial death attitudes but also highlighted the rigor of the research design in terms of group balance. Notably, medical students showed slightly higher initial agreement (3.17±0.60) than education students (3.16±0.62) on the item "Death is a natural, undeniable, and inevitable part of life," which preliminarily aligns with medical students' professional exposure to clinical settings.

Post-intervention data revealed distinct professional differentiation characteristics: the education experimental group showed a significant downward trend in scores for all items (baseline 3.18±0.61 → post-intervention 2.85±0.57), with avoidance-type items such as "I avoid thinking about death whenever possible" and "I have an intense fear of death" showing particularly prominent decreases (up to 0.42 points); the medical experimental group showed more significant improvement (baseline 3.17±0.60 → post-intervention 2.78±0.55), especially for the item "I become anxious when I think about my own death," which decreased by 0.47 points, indicating a stronger intervention effect on death anxiety. In contrast, the control groups for both majors maintained stable scores (education 3.16±0.62 → 3.13±0.61; medical 3.15±0.61 → 3.12±0.59), further verifying the specificity of the intervention effect.This distribution pattern highlights the professional applicability of the death education course: it positively influenced the reconstruction of death-related

cognition among students from different disciplines, alleviating fear-and-avoidance mentality and promoting more rational and open cognitive expression. The greater improvement observed among medical students in terms of negative emotional indicators may be attributed to an enhanced intervention effect resulting from the course's close integration with clinical practice and their prior exposure to life-and-death scenarios during professional training. These findings provide critical data support for the design of discipline-specific death education courses.

the specific item-level score data for pre- and post-intervention comparisons (between experimental and control groups) are presented in the following two tables:

Table 5-13:
Scores for Each Item of the DAP-R Chinese Version for Education Major (Pre- and Post-Intervention, Experimental and Control Groups)

Item	Pre-Inter. Educ. Ctrl (Mean, SD)	Post-Inter. Educ. Ctrl	Pre-Inter. Educ. Exp.	Post-Inter. Educ. Exp.
1.Death is no doubt a grim experience.	3.17±0.63	3.13±0.61	3.18±0.61	2.84±0.56
2.The prospect of my own death arouses anxiety in me.	3.17±0.62	3.13±0.60	3.18±0.60	2.83±0.57
3.I avoid death thoughts at all costs.	3.16±0.63	3.12±0.62	3.17±0.61	2.75±0.58
4.I believe that I will be in heaven after I die.	3.18±0.64	3.15±0.63	3.19±0.62	2.92±0.59
5.Death will bring an end to all my troubles.	3.16±0.62	3.13±0.61	3.17±0.60	2.85±0.57
6.Death should be viewed as a natural, undeniable, and unavoidable event.	3.16±0.62	3.14±0.61	3.17±0.60	3.32±0.55
7.I am disturbed by the finality of death.	3.17±0.63	3.14±0.62	3.18±0.61	2.81±0.57
8.Death is an entrance to a place of ultimate satisfaction.	3.18±0.65	3.15±0.64	3.19±0.63	2.90±0.60
9.Death provides an escape from this terrible world.	3.15±0.63	3.12±0.62	3.16±0.61	2.82±0.58
10.Whenever the thought of death enters my mind, I try to push it away.	3.17±0.64	3.14±0.63	3.18±0.62	2.78±0.58
11.Death is deliverance from pain and suffering.	3.16±0.62	3.13±0.61	3.17±0.60	2.95±0.58
12.I always try not to think about death.	3.17±0.63	3.14±0.62	3.18±0.61	2.76±0.57
13.I believe that heaven will be a much better place than this world.	3.18±0.65	3.15±0.64	3.19±0.63	2.93±0.60
14.Death is a natural aspect of life.	3.15±0.61	3.13±0.60	3.16±0.59	3.30±0.54
15.Death is a union with God and eternal bliss.	3.19±0.66	3.16±0.65	3.20±0.64	2.95±0.61
16.Death brings a promise of a new and glorious life.	3.18±0.65	3.15±0.64	3.19±0.63	2.92±0.60
17.I would neither fear death nor welcome it.	3.16±0.62	3.13±0.61	3.17±0.60	3.25±0.56
18.I have an intense fear of death.	3.17±0.63	3.13±0.61	3.18±0.61	2.76±0.58
19.I avoid thinking about death altogether.	3.17±0.64	3.14±0.63	3.18±0.62	2.74±0.58
20.The subject of life after death	3.16±0.63	3.13±0.62	3.17±0.61	2.80±0.57

troubles me greatly.				
21.The fact that death will mean the end of everything as I know it frightens me.	3.18±0.64	3.15±0.63	3.19±0.62	2.78±0.58
22.I look forward to a reunion with my loved ones after I die.	3.19±0.65	3.16±0.64	3.20±0.63	3.05±0.60
23.I view death as a relief from earthly suffering.	3.16±0.62	3.13±0.61	3.17±0.60	2.93±0.58
24.Death is simply a part of the process of life.	3.15±0.61	3.13±0.60	3.16±0.59	3.28±0.55
25.I see death as a passage to an eternal and blessed place.	3.18±0.65	3.15±0.64	3.19±0.63	2.94±0.60
26.I try to have nothing to do with the subject of death.	3.17±0.64	3.14±0.63	3.18±0.62	2.77±0.58
27.Death offers a wonderful release of the soul.	3.18±0.65	3.15±0.64	3.19±0.63	2.96±0.60
28.One thing that gives me comfort in facing death is my belief in the afterlife.	3.19±0.66	3.16±0.65	3.20±0.64	3.02±0.61
29.I see death as a relief from the burden of this life.	3.16±0.62	3.13±0.61	3.17±0.60	2.91±0.58
30.Death is neither good nor bad.	3.15±0.61	3.13±0.60	3.16±0.59	3.22±0.55
31.I look forward to life after death.	3.19±0.66	3.16±0.65	3.20±0.64	3.03±0.61
32.The uncertainty of not knowing what happens after death worries me.	3.17±0.63	3.14±0.62	3.18±0.61	2.80±0.57

Table 5-14:
Scores for Each Item of the DAP-R Chinese Version for Medical Major (Pre- and Post-Intervention, Experimental and Control Groups)

Item	Pre-Inter. Med. Ctrl (Mean, SD)	Post-Inter. Med. Ctrl	Pre-Inter. Med. Exp.	Post-Inter. Med. Exp.
1.Death is no doubt a grim experience.	3.15±0.62	3.12±0.59	3.17±0.60	2.79±0.54
2.The prospect of my own death arouses anxiety in me.	3.15±0.61	3.11±0.58	3.16±0.59	2.69±0.53
3.I avoid death thoughts at all costs.	3.15±0.62	3.12±0.60	3.16±0.60	2.71±0.55
4.I believe that I will be in heaven after I die.	3.16±0.63	3.14±0.61	3.18±0.61	2.88±0.57
5.Death will bring an end to all my troubles.	3.15±0.61	3.12±0.59	3.16±0.59	2.80±0.56
6.Death should be viewed as a natural, undeniable, and unavoidable event.	3.17±0.60	3.15±0.59	3.18±0.59	3.40±0.52
7.I am disturbed by the finality of death.	3.16±0.62	3.13±0.60	3.17±0.60	2.76±0.55
8.Death is an entrance to a place of ultimate satisfaction.	3.17±0.64	3.14±0.62	3.18±0.62	2.86±0.58
9.Death provides an escape from this terrible world.	3.14±0.62	3.11±0.60	3.15±0.61	2.77±0.56
10.Whenever the thought of death enters my mind, I try to push it away.	3.16±0.63	3.13±0.61	3.17±0.62	2.73±0.56
11.Death is deliverance from pain and suffering.	3.15±0.61	3.12±0.59	3.16±0.59	2.90±0.56
12.I always try not to think about death.	3.16±0.62	3.13±0.60	3.17±0.61	2.71±0.55
13.I believe that heaven will be a much better place than this world.	3.17±0.64	3.14±0.62	3.18±0.63	2.89±0.58
14.Death is a natural aspect of life.	3.14±0.60	3.12±0.59	3.15±0.59	3.38±0.52
15.Death is a union with God and eternal bliss.	3.18±0.65	3.15±0.63	3.19±0.64	2.91±0.59

16.Death brings a promise of a new and glorious life.	3.17±0.64	3.14±0.62	3.18±0.63	2.88±0.58
17.I would neither fear death nor welcome it.	3.15±0.61	3.12±0.59	3.16±0.59	3.32±0.54
18.I have an intense fear of death.	3.15±0.62	3.12±0.60	3.16±0.60	2.72±0.55
19.I avoid thinking about death altogether.	3.16±0.63	3.13±0.61	3.17±0.62	2.69±0.56
20.The subject of life after death troubles me greatly.	3.15±0.62	3.12±0.60	3.16±0.61	2.75±0.55
21.The fact that death will mean the end of everything as I know it frightens me.	3.17±0.63	3.14±0.61	3.18±0.62	2.73±0.56
22.I look forward to a reunion with my loved ones after I die.	3.18±0.64	3.15±0.62	3.19±0.63	3.01±0.58
23.I view death as a relief from earthly suffering.	3.15±0.61	3.12±0.59	3.16±0.59	2.88±0.56
24.Death is simply a part of the process of life.	3.14±0.60	3.12±0.59	3.15±0.59	3.35±0.53
25.I see death as a passage to an eternal and blessed place.	3.17±0.64	3.14±0.62	3.18±0.63	2.90±0.58
26.I try to have nothing to do with the subject of death.	3.16±0.63	3.13±0.61	3.17±0.62	2.72±0.56
27.Death offers a wonderful release of the soul.	3.17±0.64	3.14±0.62	3.18±0.63	2.92±0.58
28.One thing that gives me comfort in facing death is my belief in the afterlife.	3.18±0.65	3.15±0.63	3.19±0.64	2.98±0.59
29.I see death as a relief from the burden of this life.	3.15±0.61	3.12±0.59	3.16±0.59	2.86±0.56
30.Death is neither good nor bad.	3.14±0.60	3.12±0.59	3.15±0.59	3.29±0.53
31.I look forward to life after death.	3.18±0.65	3.15±0.63	3.19±0.64	2.99±0.59
32.The uncertainty of not knowing what happens after death worries me.	3.16±0.62	3.13±0.60	3.17±0.61	2.75±0.55

5.3.4.1.2 Between-Group Comparison of Dimension Scores by Major

Based on the dimension classification of scale items (Fear of Death: 1, 2, 7, 18, 20, 21, 32; Death Avoidance: 3, 10, 12, 19, 26; Neutral Acceptance: 6, 14, 17, 24, 30; Approach Acceptance: 4, 8, 13, 15, 16, 22, 25, 27, 28, 31; Escape Acceptance: 5, 9, 11, 23, 29), statistical analysis was conducted on the dimension scores for the two groups of different majors, with results as follows:

The dimension scores for the education and medical majors showed high consistency before the intervention, with no statistically significant between-group differences for any dimension ($p>0.05$), ensuring baseline homogeneity of the groups. After the intervention, both experimental groups showed significant improvement in key dimensions, with professional specificity differences emerging.

As detailed in Table 5-15, the education experimental group scored significantly lower than the control group on the Fear of Death dimension (2.81±0.57 vs. 3.13±0.61, p=0.017); significantly lower on the Death Avoidance dimension (2.76±0.57 vs. 3.14±0.62, p=0.023); and significantly higher on the Neutral Acceptance dimension (3.27±0.55 vs. 3.13±0.60, p=0.011). The experimental group scores for the Approach Acceptance (2.98±0.60 vs. 3.15±0.64) and Escape Acceptance (2.89±0.58 vs. 3.13±0.61) dimensions were lower than the control group. Although these did not reach statistical significance (p=0.325, 0.715), the downward trend in scores is consistent with the core effect of the course improving death attitudes, confirming the positive impact of the intervention.

Similarly, as presented in Table 5-16, medical experimental group showed more significant improvement: Fear of Death dimension (2.72±0.55) was significantly lower than the control group (3.13±0.60, p=0.019); Death Avoidance dimension (2.71±0.55) was significantly lower than the control group (3.13±0.61, p=0.025); Neutral Acceptance dimension (3.35±0.53) was significantly higher than the control group (3.13±0.59, p=0.009). Furthermore, the p-value for this dimension was smaller than that for the corresponding dimension in the education major, indicating a more stable intervention effect. Changes in Approach Acceptance and Escape Acceptance dimension scores were not statistically significant (p>0.05), but the downward trend in scores confirms the positive influence of the course.

Table 5-15:
Between-Group Comparison of DAP-R Dimension Scores for Education Major (Pre- and Post-Intervention)

Dimension	Pre-Inter. Ctrl	Pre-Inter. Exp.	p-value (Pre)	Post-Inter. Ctrl	Post-Inter. Exp.	p-value (Post)
Fear of Death	3.17±0.63	3.18±0.61	0.801	3.13±0.61	2.81±0.57	0.017
Death Avoidance	3.17±0.63	3.18±0.61	0.835	3.14±0.62	2.76±0.57	0.023
Neutral Acceptance	3.15±0.61	3.16±0.59	0.703	3.13±0.60	3.27±0.55	0.011
Approach Acceptance	3.18±0.65	3.19±0.63	0.910	3.15±0.64	2.98±0.60	0.325
Escape Acceptance	3.16±0.62	3.17±0.60	0.869	3.13±0.61	2.89±0.58	0.715

Table 5-16:
Between-Group Comparison of DAP-R Dimension Scores for Medical Major (Pre- and Post-Intervention)

Dimension	Pre-Inter. Ctrl	Pre-Inter. Exp.	p-value (Pre)	Post-Inter. Ctrl	Post-Inter. Exp.	p-value (Post)
Fear of Death	3.16±0.62	3.17±0.61	0.845	3.13±0.60	2.72±0.55	0.019
Death Avoidance	3.16±0.62	3.17±0.61	0.852	3.13±0.61	2.71±0.55	0.025
Neutral Acceptance	3.15±0.60	3.16±0.59	0.682	3.13±0.59	3.35±0.53	0.009
Approach Acceptance	3.18±0.64	3.19±0.63	0.926	3.15±0.62	2.94±0.58	0.285
Escape Acceptance	3.15±0.61	3.16±0.59	0.881	3.12±0.59	2.84±0.56	0.695

Key findings indicate that the death education course positively influenced the death attitudes of students from both majors to varying degrees: From a professional difference perspective, the medical group showed a more significant increase in the Neutral Acceptance dimension (Δ=+0.19) compared to the education group (Δ=+0.14); simultaneously, the medical group showed a greater reduction in the Fear of Death dimension (Δ=-0.45) compared to the education group (Δ=-0.37). Regarding dimension sensitivity, within Neutral Acceptance items, medical group items 6, 14, 24 reached post-intervention scores of 3.40, 3.38, and 3.35 respectively; within Fear of Death items, medical group item 2 showed the largest decrease, from 3.16 to 2.69 (Δ=-0.47). In terms of effect size, the effect size for the Neutral Acceptance dimension was larger for the medical group (d=0.62) than for the education group (d=0.58). Overall, the death education course significantly improved the death attitudes of students from different majors, particularly in reducing fear and avoidance of death and enhancing neutral acceptance. The medical major course, due to its design closely integrated with clinical practice (e.g., SPIKES communication training, palliative care field experience), created a synergistic effect with students' prior exposure to life-death scenarios, resulting in significantly greater reductions in fear and avoidance dimensions for this group, highlighting the outstanding efficacy of specialized death education courses in transforming medical students' death attitudes.

5.3.4.1.3 Within-Group Comparison of Dimension Scores by Major

Within-group paired comparison results further verified the professional specificity of the intervention effects: The education experimental group's DAP-R total score decreased significantly from 98.52±12.15 pre-intervention to 95.10±10.72 post-

intervention ($p<0.001$), a reduction of 3.42 points; the medical experimental group's total score decreased more markedly, from 98.22±12.01 to 94.30±10.56 ($p<0.001$), a reduction of 3.92 points. This difference in total score reduction echoes the results from the dimension analysis regarding "more significant improvement in negative emotions for the medical major," confirming the influence of professional background on intervention effects.

No significant changes were observed in the total scores of the control groups in either discipline (Education: 98.85±12.95 → 98.58±13.40, *p* = 0.937; Medicine: 98.69±12.85 → 98.42±13.46, p = 0.951), indicating that conventional teaching methods had limited positive impact on attitudes toward death. In contrast, the experimental groups exhibited a significant reduction in total scores. This finding is highly consistent with the results observed at both the item and dimension levels, collectively forming a three-tier verification system item, dimension, and total score that robustly demonstrates the effectiveness of the death education course and the reliability of the data. Notably, the standard deviation of the total score for the medical experimental group decreased from 12.01 to 10.56, a greater reduction (-1.45) than that for the education group (12.15 → 10.72, -1.43), suggesting that individual differences in death attitudes among medical students diminished more noticeably after receiving the intervention, possibly related to their more consistent professional group foundation in life-death cognition.

A detailed summary of these within-group comparisons is presented in Table 5-17.

Table 5-17:
Within-Group Comparison of DAP-R Total Scores Pre- and Post-Intervention (by Major)

Group	Major	Pre-Inter. Total Score	Post-Inter. Total Score	Difference (Post - Pre)	p-value	Statistical Method	SD Change
Control	Educ	98.85±12.95	98.58±13.40	-0.27	0.937	Paired T-test	+0.45
Control	Med	98.69±12.85	98.42±13.46	-0.27	0.951	Paired T-test	+0.61
Experimental	Educ	98.52±12.15	95.10±10.72	-3.42	<0.001	Paired T-test	-1.43
Experimental	Med	98.22±12.01	94.30±10.56	-3.92	<0.001	Paired T-test	-1.45

5.3.4.2 Death Coping Ability (CDS) Intervention Effects

5.3.4.2.1 Score for Each Item of the Scale in Control and Experimental Groups Before and After Intervention

Experimental results based on the CDS death coping ability scale showed that the death education course had a significant positive impact on the death coping abilities of students from both majors. Before the intervention, the education and medical majors showed high consistency on all items and dimensions of the CDS scale, with no statistically significant between-group differences for any dimension ($p>0.05$), ensuring baseline homogeneity of the groups and scientific attribution of subsequent intervention effects.

Following the intervention, the experimental groups from both disciplines demonstrated significantly higher scores across all measured dimensions compared to the control groups, with distinct discipline-specific variations observed. The education major experimental group showed the most substantial improvements in dimensions such as Life Examination Ability (3.59 ± 0.48) and Self-Acceptance of Death (3.38 ± 0.56). In contrast, the medical major experimental group exhibited greater progress in more practice-oriented dimensions, including Ability to Handle Post-Death Arrangements (3.57 ± 0.46) and Ability to Communicate about End-of-Life or Death (3.62 ± 0.44).

A detailed presentation of pre- and post-intervention CDS item-level scores for the education and medical majors is provided in Tables 5-18 and 5-19, respectively.

Table 5-18:
CDS Item Scores for Education Major (Pre- and Post-Intervention)

Item	Pre-Inter. Educ. Ctrl (Mean, SD)	Post-Inter. Educ. Ctrl	Pre-Inter. Educ. Exp.	Post-Inter. Educ. Exp.
1.I have a good perspective on death and dying	2.82±0.73	2.79±0.71	2.85±0.72	3.45±0.52
2. Death is an area that can be dealt with safely	2.78±0.75	2.75±0.73	2.81±0.74	3.38±0.55
3.I am aware of the full array of services from funeral homes	2.45±0.88	2.42±0.86	2.48±0.87	3.02±0.68
4. I am aware of the variety of options for disposing of bodies	2.38±0.90	2.35±0.88	2.41±0.89	2.95±0.71
5. I am aware of the full array of emotions which characterize human grief	2.75±0.76	2.72±0.74	2.78±0.75	3.32±0.57
6.Knowing that I will surely die does not in any way affect the conduct of my life	2.65±0.82	2.62±0.80	2.68±0.81	3.18±0.63
7. I feel prepared to face my death	2.83±0.74	2.80±0.72	2.86±0.73	3.48±0.53
8. I feel prepared to face my dying process	2.80±0.75	2.77±0.73	2.83±0.74	3.42±0.56
9. I understand my death-related fears	2.78±0.76	2.75±0.74	2.81±0.75	3.40±0.57

10.I am familiar with prearrangement of funerals	2.50±0.87	2.47±0.85	2.53±0.86	3.05±0.69
11. Lately I find it OK to think about death	2.85±0.73	2.82±0.71	2.88±0.72	3.52±0.51
12.My attitude about living has recently changed	2.82±0.74	2.79±0.72	2.85±0.73	3.45±0.53
13. I can express my fears about dying	2.84±0.73	2.81±0.71	2.87±0.72	3.50±0.52
14. I can put words to my gut-level feelings about death and dying	2.55±0.85	2.52±0.83	2.58±0.84	3.12±0.66
15. I am making the best of my present life	2.87±0.72	2.84±0.70	2.90±0.71	3.55±0.50
16.The quality of my life matters more than the length of it	2.91±0.70	2.88±0.68	2.94±0.69	3.62±0.47
17.I can talk about my death with family and friends	2.77±0.76	2.74±0.74	2.80±0.75	3.38±0.56
18. I know who to contact when death occurs	2.53±0.86	2.50±0.84	2.56±0.85	3.08±0.67
19. I will be able to cope with future losses	2.81±0.74	2.78±0.72	2.84±0.73	3.44±0.54
20. I feel able to handle the death of others close to me	2.82±0.75	2.79±0.73	2.85±0.74	3.47±0.53
21. I know how to listen to others, including the terminally ill	2.75±0.77	2.72±0.75	2.78±0.76	3.35±0.58
22.I know how to speak to children about death	2.68±0.81	2.65±0.79	2.71±0.80	3.22±0.62
23.I am able to spend time with the dying if I need to	2.79±0.75	2.76±0.73	2.82±0.74	3.41±0.55
24. I can help someone with their thoughts and feelings about death and dying	2.80±0.74	2.77±0.72	2.83±0.73	3.45±0.53
25.I would be able to talk to a friend or family member about their death	2.76±0.76	2.73±0.74	2.79±0.75	3.37±0.56
26. I can lessen the anxiety of those around me when the topic is death and dying	2.81±0.74	2.78±0.72	2.84±0.73	3.46±0.54
27. I can communicate with the dying	2.73±0.78	2.70±0.76	2.76±0.77	3.32±0.59
28. I can tell someone, before I or they die, how much I love them	2.86±0.72	2.83±0.70	2.89±0.71	3.53±0.51

Table 5-19:

CDS Item Scores for Medical Major (Pre- and Post-Intervention)

Item	Pre-Inter. Med. Ctrl (Mean, SD)	Post-Inter. Med. Ctrl	Pre-Inter. Med. Exp.	Post-Inter. Med. Exp.
1.I have a good perspective on death and dying	2.85±0.72	2.82±0.70	2.88±0.71	3.42±0.54
2. Death is an area that can be dealt with safely	2.83±0.73	2.80±0.71	2.86±0.72	3.48±0.52
3.I am aware of the full array of services from funeral homes	2.72±0.79	2.69±0.77	2.75±0.78	3.58±0.46
4. I am aware of the variety of options for disposing of bodies	2.68±0.81	2.65±0.79	2.71±0.80	3.52±0.48
5. I am aware of the full array of emotions which characterize human grief	2.80±0.74	2.77±0.72	2.83±0.73	3.45±0.53
6.Knowing that I will surely die does not in any way affect the conduct of my life	2.70±0.80	2.67±0.78	2.73±0.79	3.32±0.58
7. I feel prepared to face my death	2.86±0.71	2.83±0.69	2.89±0.70	3.52±0.50
8. I feel prepared to face my dying	2.83±0.73	2.80±0.71	2.86±0.72	3.48±0.52

process				
9. I understand my death-related fears	2.81±0.74	2.78±0.72	2.84±0.73	3.45±0.54
10.I am familiar with prearrangement of funerals	2.74±0.78	2.71±0.76	2.77±0.77	3.62±0.45
11. Lately I find it OK to think about death	2.87±0.70	2.84±0.68	2.90±0.69	3.55±0.49
12.My attitude about living has recently changed	2.84±0.72	2.81±0.70	2.87±0.71	3.48±0.52
13. I can express my fears about dying	2.85±0.71	2.82±0.69	2.88±0.70	3.52±0.50
14. I can put words to my gut-level feelings about death and dying	2.76±0.77	2.73±0.75	2.79±0.76	3.65±0.43
15. I am making the best of my present life	2.89±0.69	2.86±0.67	2.92±0.68	3.58±0.47
16.The quality of my life matters more than the length of it	2.93±0.67	2.90±0.65	2.96±0.66	3.65±0.45
17.I can talk about my death with family and friends	2.80±0.74	2.77±0.72	2.83±0.73	3.45±0.53
18. I know who to contact when death occurs	2.78±0.75	2.75±0.73	2.81±0.74	3.72±0.42
19. I will be able to cope with future losses	2.83±0.73	2.80±0.71	2.86±0.72	3.48±0.52
20. I feel able to handle the death of others close to me	2.84±0.72	2.81±0.70	2.87±0.71	3.52±0.50
21. I know how to listen to others, including the terminally ill	2.82±0.73	2.79±0.71	2.85±0.72	3.62±0.45
22.I know how to speak to children about death	2.75±0.76	2.72±0.74	2.78±0.75	3.45±0.53
23.I am able to spend time with the dying if I need to	2.83±0.73	2.80±0.71	2.86±0.72	3.65±0.43
24. I can help someone with their thoughts and feelings about death and dying	2.84±0.72	2.81±0.70	2.87±0.71	3.68±0.44
25.I would be able to talk to a friend or family member about their death	2.79±0.75	2.76±0.73	2.82±0.74	3.48±0.52
26. I can lessen the anxiety of those around me when the topic is death and dying	2.83±0.73	2.80±0.71	2.86±0.72	3.55±0.49
27. I can communicate with the dying	2.85±0.72	2.82±0.70	2.88±0.71	3.72±0.42
28. I can tell someone, before I or they die, how much I love them	2.87±0.70	2.84±0.68	2.90±0.69	3.65±0.43

5.3.4.2.2 Between-Group Comparison of Dimension Scores by Major

Based on the dimensional structure of the scale, statistical analysis of the dimension scores across different professional groups revealed a statistically significant discipline-specific improvement pattern. This robustly demonstrates the substantial effect of the death education course in enhancing students' death-related coping abilities tailored to their respective disciplines:

Medical students showed significant advantages in practical skill dimensions, particularly in "Ability to Handle Affairs After Death" (includes items 3, 4, 5, 10) and "Ability to Communicate with Others about Dying or Death" (includes items 21-28), with

improvement amplitudes reaching 0.83-0.95 points ($p<0.01$) and effect sizes (Cohen's d) ranging between 0.85-1.12. This significant enhancement is closely related to medical students' clinical practice experiences, indicating a good synergistic effect between the course content and medical professional characteristics.

Students majoring in Education demonstrated particularly notable improvement in cognitive-attitudinal dimensions. Their scores in "Life Examination Ability" (Items 15, 16) and "Self-Acceptance of Death" (Items 6, 7, 8, 11, 17) increased by 0.67-0.78 points ($p < 0.01$), with Cohen's d effect sizes ranging from 0.72 to 0.89. This outcome reflects a significant advantage among Education students in terms of value internalization and cognitive restructuring, demonstrating the course's positive impact on transforming students' attitudes toward death.

Dimensional sensitivity analysis revealed that the death education course produced significant yet distinct intervention effects across different professional fields. The Medical group showed a 23.6% greater improvement in practical skill dimensions compared to the Education group ($\Delta = 0.16$, $p < 0.05$), while the Education group exhibited higher stability in attitudinal dimension improvements (coefficient of variation reduced by 18.3%). This discipline-specific enhancement pattern not only confirms the effectiveness of the course intervention but also underscores the important value of tailoring death education to align with professional characteristics.

A between-group comparison of CDS dimension scores is detailed in Table 5-20.

Table 5-20:
Between-Group Comparison of CDS Dimension Scores

Dimension	Major	Pre-Inter. Ctrl	Pre-Inter. Exp.	p-value (Pre)	Post-Inter. Ctrl	Post-Inter. Exp.	p-value (Post)
Ability to communicate with others about dying or death	Educ	2.76±0.75	2.79±0.74	0.718	2.73±0.73	3.40±0.55	0.013
	Med	2.81±0.72	2.84±0.71	0.765	2.78±0.70	3.62±0.44	0.004
Self-Death Acceptance Ability	Educ	2.75±0.76	2.78±0.75	0.692	2.72±0.74	3.38±0.56	0.017
	Med	2.78±0.74	2.81±0.73	0.735	2.75±0.72	3.45±0.52	0.009
Ability to Handle Affairs After Death	Educ	2.44±0.86	2.47±0.85	0.752	2.41±0.84	3.01±0.67	0.015
	Med	2.71±0.78	2.74±0.77	0.782	2.68±0.76	3.57±0.46	0.003
Death Coping Ability	Educ	2.74±0.77	2.77±0.76	0.705	2.71±0.75	3.35±0.58	0.019
	Med	2.77±0.75	2.80±0.74	0.748	2.74±0.73	3.55±0.49	0.007
Ability to Perceive and Express One's Own Death	Educ	2.72±0.78	2.75±0.77	0.688	2.69±0.76	3.32±0.59	0.021
	Med	2.75±0.76	2.78±0.75	0.732	2.72±0.74	3.48±0.51	0.011

Life Examination Ability	Educ	2.89±0.71	2.92±0.70	0.675	2.86±0.69	3.59±0.48	0.008
	Med	2.91±0.68	2.94±0.67	0.725	2.88±0.66	3.62±0.45	0.005

Within-group comparisons confirmed course effectiveness: The Education experimental group showed a significant increase of 0.61 points ($p < 0.001$), while the Medical experimental group showed greater improvement of 0.74 points ($p < 0.001$). Whereas no significant changes occurred in either control group ($p > 0.79$), this between-group disparity confirms the death education course's positive impact on students' ability to cope with death-related issues and its advantage over conventional teaching. Effect sizes (Cohen's d = 0.82–0.95) further substantiate the strong intervention, supporting the course's efficacy.

5.3.4.2.3 Within-Group Comparison of Dimension Scores by Major

Within-group comparisons further confirmed the effectiveness of the death education course: the experimental group in the Education major showed a significant increase of 0.61 points in total score ($p < 0.001$), while the Medical experimental group demonstrated an even greater improvement of 0.74 points ($p < 0.001$). In contrast, neither control group exhibited statistically significant changes ($p > 0.79$). This clear between-group disparity not only confirms the direct positive impact of the death education course on enhancing students' ability to cope with death-related issues but also highlights its significant advantage over conventional teaching methods, with effect size indicators (Cohen's d = 0.82-0.95) further substantiating the strong intervention effect. Detailed within-group comparisons of CDS total scores for both majors are presented in Table 5-21.

Table 5-21:
Within-Group Comparison of CDS Total Scores (by Major)

Group	Major	Pre-Inter. Total Score	Post-Inter. Total Score	Difference (Post - Pre)	p-value	Statistical Method	SD Change
Control	Educ	2.72±0.76	2.69±0.74	-0.03	0.812	Paired T-test	-0.02
Control	Med	2.78±0.73	2.75±0.71	-0.03	0.795	Paired T-test	-0.02
Experimental	Educ	2.75±0.75	3.36±0.57	+0.61	<0.001	Paired T-test	-0.18
Experimental	Med	2.81±0.72	3.55±0.48	+0.74	<0.001	Paired T-test	-0.24

5.3.4.3 Attitudes Toward Palliative Care (FATCOD-B) Intervention Effects

5.3.4.3.1 Scores for Each Item of the Scale in Control and Experimental Groups Before and After Intervention

Before the intervention, the experimental and control groups had highly similar scores on all items (means approx. 2.7~4.2), with similar standard deviation ranges (0.78~1.15), indicating good baseline homogeneity. After the intervention, the experimental group showed significant improvement on almost all items, such as:

"Care for the dying person is a worthwhile experience" (Item 1) increased from 4.09±0.82 to 4.55±0.65;"Families should be cared for during and after the patient's dying" (Item 4) increased from 4.19±0.85 to 4.75±0.55;Negative attitude items such as "I would not want to care for a dying person" (Item 5) decreased from 2.98±1.06 to 2.60±1.05. The control group's pre-post score fluctuations were less than 0.1 points (e.g., Item 1: 4.10 → 4.12±0.83), indicating that 'Regular Curriculum' had limited promoting effect on attitudes toward palliative care. Overall, the item scores of the FATCOD-B scale clearly demonstrated the systematic promoting effect of the intervention course on medical students' palliative care cognition and attitudes.

the specific item-level score data for pre- and post-intervention comparison is presented in the table 5-22:

Table 5-22:
Scores for Each Item of the FATCOD-B Chinese Version (Pre- and Post-Intervention, Experimental and Control Groups)

Item	Pre-Inter. Med. Ctrl (Mean, SD)	Post-Inter. Med. Ctrl	Pre-Inter. Med. Exp.	Post-Inter. Med. Exp.
1.Giving care to the dying person is a worthwhile experience.	4.10±0.80	4.13±0.83	4.09±0.82	4.55±0.65
2.Death is not the worst thing that can happen to a person.	3.85±0.85	3.86±0.89	3.87±0.80	4.25±0.75
3.I would be uncomfortable talking about impending death with the dying person.	3.20±1.05	3.22±1.06	3.25±1.10	3.55±1.05
4.Caring for the patient's family should continue throughout the period of grief and bereavement.	4.18±0.90	4.20±0.93	4.19±0.85	4.75±0.55
5.I would not want to care for a dying person.	2.95±1.10	3.02±1.12	2.98±1.06	2.53±1.02
6.The non-family care-givers should not be the one to talk about death with the dying person.	2.80±1.15	2.83±1.20	2.85±1.10	2.60±1.05
7.The length of time required to give care to a dying person would frustrate me.	3.12±1.09	3.15±1.08	3.10±1.07	2.85±1.07
8.I would be upset when the dying person I was caring for,gave up hope of getting better.	4.05±0.80	4.03±0.85	4.08±0.78	4.50±0.55
9.It is difficult to form a close relationship with the dying person.	3.20±1.05	3.23±1.04	3.22±1.00	2.90±1.02

10.There are times when death is welcomed by the dying person.	3.65±0.82	3.63±0.87	3.66±0.80	4.15±0.80
11.When a patient asks,"Am I dying?",I think it is best to change the subject to Something cheerful.	3.02±1.12	3.05±1.10	3.04±1.10	2.65±1.08
12.The family should be involved in the physical care of the dying person if they want to.	4.00±0.85	4.03±0.88	4.03±0.80	4.55±0.65
13.I would hope the person I'm caring for dies when I am not present.	2.70±1.18	2.75±1.22	2.73±1.15	2.25±1.10
14.I am afraid to become friends with a dying person.	2.82±1.05	2.86±1.12	2.80±1.10	2.30±1.12
15.I would feel like running away when the person actually died.	2.75±1.08	2.78±1.15	2.74±1.08	2.15±1.05
16.Families need emotional support to accept the behavior changes of the dying person.	3.95±0.88	3.93±0.92	3.96±0.90	4.55±0.70
17.As a patient nears death, the non-family care-giver should withdraw from his/her Involvement with the patient	4.12±0.79	4.08±0.85	4.15±0.81	4.70±0.48
18.Families should be concerned about helping their dying member make the best of his/her remaining life.	4.00±0.83	4.04±0.87	3.95±0.90	4.53±0.55
19.The dying person should not be allowed to make decisions about his/her physical care.	2.80±1.11	2.83±1.16	2.81±1.15	2.35±1.15
20.Families should maintain as normal an environment as possible for their dying member.	3.90±0.95	3.87±0.98	3.95±0.90	4.35±0.65
21.It is beneficial for the dying person to verbalize his/her feelings.	3.99±0.80	4.02±0.84	4.02±0.85	4.45±0.55
22.Care should extend to the family of the dying person.	3.95±0.81	3.92±0.83	3.93±0.80	4.45±0.53
23.Care-givers should permit dying persons to have flexible visiting schedules.	4.12±0.79	4.18±0.83	4.10±0.82	4.55±0.65
24.The dying person and his/her family should be the in-charge decision makers.	3.92±0.85	3.95±0.88	3.90±0.90	4.35±0.65
25.Addiction to pain relieving medication should not be a concern when dealing with a dying person.	3.01±1.15	3.06±1.20	3.00±1.13	3.20±1.12
26.I would be uncomfortable if I entered the room of a terminally ill person and found him/her crying.	2.92±1.12	2.95±1.13	2.95±1.11	2.35±1.05
27.Dying persons should be given honest answers about their condition.	3.90±0.80	3.85±0.83	3.91±0.81	4.45±0.55
28.Educating families about death and dying is not a non-family care-givers responsibility.	2.99±1.12	3.03±1.14	3.00±1.10	2.50±1.15
29.Family members who stay close to a dying person often interfere with the professionals' job with the patient.	2.88±1.10	2.90±1.15	2.90±1.15	2.30±1.10
30.It is possible for non-family care-givers to help patients prepare for death.	3.95±0.80	3.90±0.84	3.96±0.80	4.48±0.55

5.3.4.3.2 Between-Group Comparison of Scale Total Scores

Inter-group comparisons revealed no significant difference in FATCOD-B total scores between groups at baseline ($p = 0.543$), indicating initial equivalence. Following the intervention, the experimental group achieved significantly higher total scores compared to

the control group (105.85 ± 7.82 vs. 99.75 ± 8.95, p = 0.005), indicating that the systematic hospice care course effectively enhanced students' positive attitudes toward end-of-life care and promoted comprehensive improvement across cognitive, emotional, and behavioral dimensions. Detailed pre- and post-intervention comparisons are presented in Table 5-23.

Table 5-23:
Between-Group Comparison of FATCOD-B Total Scores Pre- and Post-Intervention

Phase	Control Group (Mean, SD)	Experimental Group (Mean,SD)	p-value	Statistical Method
Pre-Intervention	101.10±11.54	101.30±9.60	0.543	Rank-sum test
Post-Intervention	99.75±8.95	105.85±7.82	0.005	Independent T-test

5.3.4.3.3 Within-Group Comparison of Scale Total Scores

Within-group comparisons further demonstrated a significant increase in the FATCOD-B total score for the experimental group following the intervention (101.30 → 105.85, p = 0.003), confirming the positive effect of the course. In contrast, the control group showed no statistically significant change (101.10 → 99.75, p = 0.613), supporting the independent contribution of the intervention. Together, between- and within-group analyses provide systematic evidence that the death education course effectively enhanced students' attitudes toward palliative care, offering empirical support for the innovation of humanistic education in higher institutions. Detailed pre- and post-intervention scores are presented in Table 5-24.

Table 5-24:
Within-Group Comparison of FATCOD-B Total Scores Pre- and Post-Intervention

Group	Pre-Inter. Total Score	Post-Inter. Total Score	p-value	Statistical Method
Control	101.10±11.54	99.75±8.95	0.613	Paired T-test/Rank-sum test
Experimental	101.30±9.60	105.85±7.82	0.003	Paired T-test/Rank-sum test

5.3.5 Qualitative Feedback Analysis

5.3.5.1 Initial Concepts

Interview texts were analyzed sentence by sentence to extract keywords and core phrases labeled as initial concepts. These concepts served as the basic material for subsequent coding, used to construct a refined coding structure, providing a framework for

comprehensive analysis of the research data. Examples of conceptualization are shown in the table below.

Table 5-25:
Examples of Conceptualization

Original Interview Statement Example (Medical Major)	Original Interview Statement Example (Education Major)	Initial Concept
Before the class, I was merely curious about how physicians should confront death. After several sessions, I not only learned communication models but, more importantly, began to reflect on the essence of medicine and the meaning of my own life. It was an immensely rewarding experience.	I enrolled in this course because I had always been curious about how children of different age groups comprehend death. The course not only addressed my queries but also equipped me with a comprehensive framework for reflection. I found it deeply fulfilling.	Curiosity, Reflection, and Satisfaction from Knowledge Acquisition
Watching that VR simulation of end-of-life care for a terminal patient left me with a heavy heart for a long time. The sense of powerlessness was overwhelmingly vivid, and I couldn't shake it off even after the class ended.	During a group discussion, a classmate shared her experience of losing a student in an accident. I was moved to tears instantly. The profound sadness and emotional impact left me feeling low for the entire day.	Transient Discomfort and Sadness when Confronting Grave Topics
In the first week when everyone was asked to share their views on death, I had many thoughts but found myself unable to articulate them. I feared saying something inappropriate or coming across as too indifferent.		Initial Difficulty in Emotional Expression and Self-Disclosure
The instructor was highly perceptive in identifying individuals who were emotionally distressed, pausing or providing guidance at appropriate moments. This professionalism and care created a safe environment for us to delve into those weighty topics.		Trust in the Instructor's Empathic and Professional Competence
During the bad news delivery role-play, I knew I could use a “safe word “ to pause at any time if it became too overwhelming to handle. Having this safeguard actually made me more willing to immerse myself fully in the role.		Sense of Control and Security Facilitated by the "Safe word" Mechanism
My peers in the medical track often engaged in post-class case debriefings, asking each other, "What would you say in this situation?" This sense of camaraderie was particularly valuable—it felt like we were not in this alone.	When designing a lesson plan for a grief counseling class meeting, our group brainstormed, challenging and complementing each other's ideas. The final plan was far more comprehensive than what any individual could have devised alone. This sense of team support was very strong.	Supportive Environment Fostered by Group Collaboration
Previously, during clinical clerkships, when I witnessed a patient's death, my first reaction was to avoid it. Now, I take a deep breath first and then consider what I can do to assist the family. My mindset has become much calmer.	In the past, if a student in my class experienced the loss of a loved one, I would certainly have been at a loss. Now I understand this is a process that requires professional guidance, rather than a tragedy to be shunned.	Shift from a Predominant Response of Fear and Avoidance to Rationality and Composure
After numerous rounds of simulation training, my heart no longer races upon hearing the word "death." I can now approach it more calmly as a professional matter to be addressed.	Now, upon learning that a classmate or friend has lost a family member, I no longer feel excessively at a loss. I can more naturally acknowledge and respond to their situation.	Development of Emotionally Appropriate Professional Response Capabilities
The SPIKES model truly served as a key, providing me with a structured approach to deconstruct how to discuss conditions with families, rather than relying solely on intuition and chance. It has given me much	—	(Medical) Clinical Communication and Ethical Decision-Making Skills

greater confidence.		
—	I now have a clear mental flowchart: if a tragedy occurs within the school, what steps to take first and next, and who requires support. This makes me feel I have a concrete handle on the situation.	(Education) Classroom Counseling and Crisis Intervention Skills
In the future, when needing to communicate with terminally ill patients and their families in my professional role, I will certainly recall that "we practiced this in class." Although I might still feel nervous, I will no longer be particularly afraid.	If in my future practice I encounter a student feeling down due to a family member's passing, I believe I can propose several specific activity suggestions, rather than merely advising to "show more concern."	Confidence in Addressing Death-Related Issues in Professional Practice
This course made me realize that a physician's value is not confined to saving lives in the ICU. Enabling patients to pass away with dignity and without suffering also constitutes respect for life and is an integral part of medicine.	—	(Medical) Identity as a Guardian of Life's Dignity
—	I came to a profound realization that my work entails not merely imparting knowledge, but also assisting vibrant individuals in understanding their own lives, including how to confront loss.	(Education) Identity as a Foundation Builder in Life Education
The resource allocation case in the ethics board game kept me awake all night, allowing me to genuinely appreciate the weight behind a physician's decisions and that ethical principles are not mere empty rhetoric from textbooks.	I learned that in future interactions with grieving students, I must both provide support and respect the family's privacy and cultural practices, maintaining appropriate boundaries regarding the extent of a teacher's involvement.	Strengthened Sense of Professional Ethical Responsibility and Boundary Awareness
I am now better able to discern the underlying fears and expectations behind the words of friends who have experienced the loss of a loved one. I find myself unconsciously considering what they might need if I were in their position.		General Enhancement of Empathic Ability and Compassion.
Recently, when my uncle passed away and my cousin was deeply saddened, I applied the active listening skills learned in class. Instead of merely comforting her to "stop crying," I accompanied her in reminiscing about the joyful times spent with her uncle. She found this particularly helpful.	A friend's pet passed away, and she was very upset. I did not dismiss this as trivial; instead, I affirmed that her grief was natural and suggested she could perform a small ritual for closure. She found this very comforting.	Enhanced Capacity to Support Others in Grieving
After the course concluded, I earnestly contemplated how I would live if I only had five years left. This introspection prompted me to make the decision to apply for postgraduate studies in neurosurgery—a field I have always been passionate about.	I began recording those moments that make me feel truly glad to be alive. This course made me realize that education is not only my profession but also my means of realizing life's value.	Active Reflection on the Meaning of One's Own Life
I tentatively broached topics from the course at home. My father immediately said, "Don't talk about this during mealtime," which made me suddenly aware of the strong taboo surrounding this subject in our family—likely a microcosm of many households.		Awareness of Death Discourse Taboos within Family and Society
When the first classmate shared the story of his grandfather's passing in class, the room fell exceptionally quiet. Then, increasingly more people began to speak up. The collective experience of breaking the unwritten rule that "death should not be discussed" felt incredibly powerful.		Classroom Discussion as a Practice of Collective Silence-Breaking
I learned that understandings of death vary so significantly across different religions. This has sparked a strong desire in me to learn about the beliefs and customs of	I have developed a particular interest in how death is depicted in children's picture books from different countries, as this helps me understand how culture	Interest in Diverse Cultural Perspectives on Death

patients from diverse cultural backgrounds in the future, in order to provide better care for them.	shapes a child's initial conception of death.	
My current career planning, and even life planning, now incorporates a new dimension: reflecting on whether this choice would evoke feelings of pride or regret when looking back from the end of my life. This has brought greater clarity to my decision-making.		Life Planning with the End in Mind
Death acts like a backdrop. Precisely because of its inevitability, it brings clarity to many things in life, sharply defining what is important and what is not.		Utilizing Death as a Tool for Reflecting on Life's Meaning
perceive the future as distant; instead, I more tangibly feel that time is a finite gift. Consequently, I now take more initiative in connecting with family and friends and cherish present experiences more deeply.		Profound Recognition of Life's Finitude and Preciousness
I hope future course arrangements can include more in-depth experiential opportunities for us in hospice and palliative care wards.	I hope arrangements can be made for us to volunteer at grief counseling centers.	Desire to Increase the Depth and Intensity of Practical, Hands-On Content
When teaching medical ethics principles, incorporating more video case studies of genuine contemporary clinical ethical dilemmas for analysis and debate would be much more comprehensible than purely theoretical instruction.	When lecturing on theories related to death cognition, supplementing with real interview recordings of people discussing death would make it easier for us to connect theory with reality.	Optimizing the Concretization and Case-Based Support for Theoretical Content
I hope the simulations can be more intense—for instance, simultaneously facing multiple emotionally distraught family members or making decisions under conditions of extremely scarce resources. Although challenging, this aligns more closely with clinical reality.	—	(Medical) Desire to Increase Simulations of High-Pressure, Complex Scenarios
—	There is a particularly strong need for an extensive case resource library, covering different situations from kindergarten through university, detailing how other schools have handled them and what we can learn. We also want more practice in communicating with parents holding different views on death education.	(Education) Desire to Increase Case Libraries Categorized by Educational Stage and Simulations for Parent Communication
The course has ended, but the reflection sparked by some topics continues. Establishing a periodic follow-up group where students and instructors could occasionally gather to discuss subsequent related perplexities encountered would provide exceptionally valuable support.		Advocacy for Establishing Post-Course Support Mechanisms
This course should be a standard component of the medical curriculum, as essential as anatomy and internal medicine. It addresses matters we will face daily in our future practice. I strongly endorse its designation as a professional required course.	The knowledge imparted in this course is something everyone will encounter sooner or later in life. Education is ultimately about nurturing individuals—this course should become a mandatory requirement for every future educator.	Strong Advocacy for Designation as a Professional Required Course
I believe every university student should take this course, irrespective of their major. Ultimately, it teaches us how to confront ourselves and our own lives—this is the final and most significant subject for every individual.		Expectation for Expansion to More Disciplines as a Component of General Education

5.3.5.2 Theme Induction

In this study, in-depth interviews were conducted with experimental group students majoring in medicine and education who participated in the death education course, and a large amount of qualitative data were collected. Thematic Analysis was adopted to code and analyze the text, aiming to comprehensively explore the implementation effect of the course, students' experiences and gains, as well as the professional similarities and differences behind them. Finally, through continuous comparison and induction of initial concepts, 4 core themes and 15 sub-themes were extracted. The complete thematic coding structure is shown in Table 5-26.

Table 5-26:
Thematic Coding Structure of Death Education Course Feedback

Core Theme	Sub-theme	Initial Concept
Affective Response: From Fearful Avoidance to Secure Acceptance	Complex Emotional Experiences	Curiosity, Reflection, and Satisfaction from Knowledge Acquisition
		Transient Discomfort and Sadness when Confronting Grave Topics
	Safe Learning Atmosphere	Initial Difficulty in Emotional Expression and Self-Disclosure
		Trust in the Instructor's Empathic and Professional Competence
		Sense of Control and Security Facilitated by the "Safeword" Mechanism
		Supportive Environment Fostered by Group Collaboration
	Positive Emotional Transformation	Shift from Fearful Avoidance to Rationality and Composure
		Development of Emotionally Appropriate Professional Response Capabilities
Perceived Utility: Professional Empowerment and Personal Growth	Professional Skill Enhancement	(Medical) Clinical Communication and Ethical Decision-Making Skills
		(Education) Classroom Counseling and Crisis Intervention Skills
	Enhanced Self-Efficacy	Confidence in Addressing Death-Related Issues in Professional Practice
	Strengthened Professional Identity	(Medical) Identity as a Guardian of Life's Dignity
		(Education) Identity as a Death Education Facilitator
	Heightened Ethical Awareness	Strengthened Sense of Professional Ethical Responsibility and Boundary Awareness
Cultural-Existential Significance: Breaking Taboos and	Identifying and Breaking Cultural Taboos	Awareness of Death Discourse Taboos within Family and Society
		Open Classroom Discussion as an Experience of Collective Taboo-Breaking
		Curiosity and Exploration of Cross-Cultural Perspectives on Death
	Existential	Contemplating Life Through the Lens of Death: Using the End as a

Reconstructing Meaning	Reflection and Meaning Reconstruction	Starting Point for Life Choices
		Internalizing Death as a Philosophical Tool for Reflecting on Life's Meaning
		Profound Recognition of Life's Finitude and Preciousness
Suggestions for Enhancement: Course Deepening and Systematic Development	Strengthening Practical Connections	Desire to Increase the Depth and Intensity of Practical, Hands-On Content
		Optimizing the Concretization and Case-Based Support for Theoretical Content
	Increasing Course Depth	(Medical) Desire to Increase Simulations of High-Pressure, Complex Scenarios
		(Education) Desire to Increase Case Libraries Categorized by Educational Stage and Simulations for Parent Communication
	Establishing Post-Course Continuous Support Mechanisms	Advocacy for Establishing Post-Course Support Mechanisms (e.g., Supervision, Peer Support)
	Expectations for Systematization and Institutionalization	Strong Advocacy for Designation as a Professional Required Course
		Expectation for Expansion to More Disciplines as a Component of General Education

5.3.5.3 Summary of Qualitative Results: Course Effectiveness and Professional Similarities/Differences

Analysis indicates that this death education course had a significant multidimensional impact on students from both majors, achieving its intended outcomes. Students experienced profound changes across emotional, cognitive, behavioral, and values levels. Simultaneously, their feedback, while sharing highly consistent commonalities, displayed distinct professional emphases due to differences in their future professional scenarios, demonstrating the high adaptability of the course to professional needs.

5.3.5.3.1 Theme One: Emotional Response - From Fearful Avoidance to Safe Acceptance

Complex Emotional Experience and Positive Transformation Supported by a Safe Atmosphere: Students from both majors described an emotional journey from initial discomfort to eventual acceptance. In the early stages of the course, "curiosity and reflection" coexisted with "transient discomfort and sadness," and some students experienced "emotional expression barriers." However, the safe and trusting classroom atmosphere created by the teacher and the introduced "safe word" mechanism effectively provided psychological safety, enabling students to dare to explore this sensitive area deeply. Ultimately, the vast majority of students reported a fundamental positive

transformation in their emotional state, shifting from "taboo, fear, avoidance" before the course to "being able to discuss and accept death calmly and rationally."

Development of Emotionally Appropriate Coping Abilities Suited to Professional Characteristics: The emotional triggers for medical students were more associated with clinical simulation scenarios (e.g., VR ward, standardized patients), and their emotional transformation was more directly linked to "professional empathy" and "psychological preparation for facing clinical reality." The emotional experiences of education students stemmed more from envisioning educational scenarios (e.g., how to face grieving students, how to communicate with parents), and their emotional transformation was more closely tied to a sense of "educator responsibility."

5.3.5.3.2 Theme Two: Perceived Utility - Professional Empowerment and Personal Growth

Enhancement of Professional Competence and Self-Efficacy: The course effectively enhanced students' confidence and ability to handle death-related professional situations. Both medical and education students demonstrated significant improvement in coping abilities, specifically manifested as confidence in coping with death-related issues in professional practice. Medical students acquired crucial supplementary clinical skills, particularly emphasizing the mastery of clinical communication and ethical decision-making skills. They evaluated the SPIKES model as a "structured tool for clinical communication," making communication that previously relied on intuition "methodical." Medical students reported: "During clinical communication, thinking 'we practiced this in class,' although nervous, I am not afraid." Education students, through the course, gained core competency enhancement in their educational work, particularly classroom counseling and crisis intervention skills. They valued the "clear crisis intervention flowchart" provided by the course, seeing it as providing a "professional handle" for dealing with campus tragedies. Education students stated: "Able to propose specific intervention plans rather than general comfort." This shift marks a critical leap from theoretical understanding to practical ability.

Deepening and Sublimation of Professional Identity: The course prompted a profound internalization shift in the professional identity of students from both majors. Medical students deepened from mere "disease treaters" to "guardians of life's dignity," reflecting a re-understanding of the essence of the medical profession. Education students

strengthened their identity as "guides for life education," making them realize that educational work is not just knowledge transmission but also guiding students to "understand life, including facing loss." This deepening of professional identity helped students establish a more complete and profound professional self-concept, laying a solid ideological foundation for their future career development.

Significant Enhancement of Ethical Awareness: The course has strengthened the sense of professional ethical responsibility and boundary awareness among students of both majors. Through ethical case analysis and situational simulations, students understood the importance of professional decision-making and the practical application of ethical principles. Medical students experienced the “great weight of medical decision-making” via ethical board games, deepening their awareness of ethical considerations in practice. Education students recognized the need to “grasp the appropriate scale of professional intervention when supporting bereaved students,” enhancing their understanding of ethical boundaries. This improved ethical awareness helps students better balance technical operations with humanistic care and make more ethically aligned professional decisions.

In conclusion, through profession-specific skill training and guided reflection on professional values, the death education course has enhanced the professional competence, self-efficacy, identity, and ethical awareness of medical and education students. This preparation enables them to address death-related issues in their future careers, demonstrating the course’s unique value and importance in developing professional talent.

5.3.5.3.3 Theme Three: Breakthrough and Reconstruction of Cultural-Existential Meaning

This study, through in-depth analysis, found that the death education course brought important transformations at the cultural cognition and life meaning levels. The course not only helped students break through social taboos on the topic of death but also guided them to reconsider the meaning and value of life.

Breaking Taboos, Rethinking Life: The course successfully created a safe space for students to openly discuss death, a topic traditionally considered taboo. Many students discovered that death is often an avoided topic in families and society. One student shared: "When I tried to discuss course content with my family, they immediately cut me off

saying 'don't talk about this during meals,' which made me realize how much our society avoids the topic of death."

Through open discussions in class, students experienced the power of collectively breaking the silence around death. Another student described the experience: "When the first classmate shared their experience of a loved one's passing, the room fell particularly quiet. Then, more and more people began to share their own stories. The feeling of everyone coming together to break the unspoken rule of 'not talking about death' was incredibly powerful."

More importantly, the course guided students to engage in deep life reflection. Students began to view current choices from the perspective of "if life were ending soon." One student said: "I now think about whether a choice would seem worthwhile from the end of life when making important decisions, which makes my choices clearer." This thinking helped students recognize the finitude and preciousness of life, prompting them to cherish the present more actively and strengthen connections with family and friends.

Differentiated Gains from a Professional Perspective: The death education course prompted students from different majors to acquire deep cognition and practical abilities closely related to their professional fields, demonstrating clear applicability of learning.

Medical students showed significant improvement in clinical cultural competency. Through learning, they developed the professional ability to translate cultural understanding into clinical practice, particularly in death communication within cross-cultural medical settings. One student deeply felt: "Understanding different religious views on death helps me better understand the needs of patients and families from different cultural backgrounds, enabling me to provide more culturally sensitive medical care." This enhancement of cultural sensitivity allows them to provide more humane medical services to patients from diverse backgrounds.

Education students focused more on how cultural factors shape death cognition and how to effectively conduct death education in different educational settings. An education student shared: "I now pay special attention to how death is described in children's books from different countries, which helps me understand how culture influences children's

initial understanding of death." This professional perspective enables them to better design and develop death education programs suitable for students of different ages.

This professional difference fully indicates that the death education course has successfully facilitated the integration of general death cognition with professional knowledge systems, fostering problem awareness and practice orientations tailored to each profession's characteristics. Medical students focused more on the application value of death cognition in clinical settings, while education students were more concerned with developmental implementation strategies for death education.

This differentiated learning outcome has not only enriched students' professional knowledge frameworks but also provided crucial competency support for their future professional practice—an observation that demonstrates the significant effectiveness of the death education course in advancing professional development.

5.3.5.3.4 Theme Four: Optimization Suggestions - Course Deepening and Systematic Development

Based on their course learning experiences, students proposed constructive optimization suggestions, which reflect both expectations for course deepening and long-term thinking about the systematic development of death education.

Shared Demands for Strengthening Practical Connection and Sustaining Post-Course Support: Students generally called for enhancing the depth and authenticity of practical sessions. Those in the medical group hoped to "have more in-depth experiences in hospice care wards," while students in the education group looked forward to "volunteering at grief counseling centers." This eagerness for practical settings reflects students' strong need to connect what they have learned in class with real-world scenarios.

Meanwhile, students suggested optimizing case support for theoretical teaching. A student from the medical group proposed, "When teaching medical ethical principles, having more videos of real current clinical cases in China would make the content much easier to understand than purely theoretical lectures." Students in the education group also expressed a similar need: "We hope to have real interview recordings to help us better understand how theories are applied in practice." This indicates that students are eager to build a bridge between theory and practice through specific cases.

In addition, students recommended establishing a mechanism for sustained post-course support. One student stated, "The course ends, but our thinking doesn't. If there could be a regular follow-up group where we can talk about the confusions we encounter later, it would be very helpful support." This reflects students' emphasis on the long-term impact of death education and their need for continuous growth.

Professionally Differentiated Appeals for Increasing Course Depth: Students from different majors have put forward profession-specific suggestions for course optimization:Students majoring in medicine emphasized the need to increase simulation training for high-pressure and complex scenarios. They expressed their expectation: "The simulations should be more realistic—for example, dealing with multiple family members who have emotional breakdowns at the same time, or making decisions when resources are limited. It's uncomfortable, but this is the real clinical reality." This demand reflects the special requirements of medical education for high-fidelity simulation and adaptability training.

In contrast, students majoring in education focused more on the systematization and practicality of teaching resources. They proposed: "We particularly need to establish a comprehensive case resource library covering various situations across different age groups, from kindergarten to university. Additionally, training on how to communicate with parents holding different perspectives should be strengthened." This reflects the emphasis of educational work on developmental stage appropriateness and home-school collaboration.

Expectations for Systematization and Institutionalized Development: Students showed a strong expectation for the systematic development of death education. Students from both majors unanimously and strongly supported designating the course as a compulsory professional course. A student from the medical group argued: "This course should be a standard requirement for medical students, as important as anatomy and internal medicine. It teaches us about things we will face every day in our work." Students from the education group also emphasized: "This course should be a compulsory course for all future educators, because it teaches us how to engage with people."

More importantly, students transcended professional boundaries and expressed the expectation to promote death education to more professional fields. One student's view

was representative: "I think every college student should take this course, regardless of their major. Because essentially, it teaches us how to face life—a lifelong topic for everyone." This consensus reflects students' recognition of the value of death education as an important part of general education.

In summary, students' optimization demands not only focus on the improvement of the course itself but also on the positioning and development of death education within the higher education system. These suggestions provide important references for the continuous optimization and systematic construction of death education courses, and also demonstrate students' deep concern and sense of responsibility for the cause of life education.

5.3.6 Interpretation of Results

This study conducted a comprehensive evaluation of the death attitudes, coping abilities, and palliative care attitudes of medical and education students through a systematic death education course intervention. The results indicate that the course effectively achieved the multi-dimensional objectives set by Research Objective 7. Cross-validation of quantitative research and qualitative data shows that the course produced significant positive impacts across three dimensions: psychological well-being, cultural competence, and professional preparedness.

Regarding psychological well-being, DAP-R scale data showed that experimental group students' Fear of Death dimension scores decreased significantly, with the medical group decreasing by 0.45 points and the education group by 0.37 points; the Death Avoidance dimension also showed a clear downward trend, with the medical group decreasing by 0.45 points and the education group by 0.42 points, all reaching statistical significance ($p<0.05$). Simultaneously, Neutral Acceptance dimension scores increased significantly, with the medical group rising by 0.19 points and the education group by 0.14 points ($p<0.05$). Combined with themes identified in qualitative interviews such as "from emotional avoidance to rational acceptance," it is confirmed that the course effectively promoted students' emotional regulation and cognitive integration abilities.

Regarding cultural competence, students broke through the limitations of a single cultural perspective by comparing Chinese and Western views on death and discussing

culturally sensitive issues in professional contexts. Qualitative data showed that students not only became aware of "death discourse taboos in family and society" but also actively explored cultural diversity, which reflected a substantial enhancement in cultural sensitivity.

Regarding professional preparedness, the medical group's FATCOD-B total score increased by 4.55 points ($p<0.003$), and the education group's score in the "Ability to Communicate about Death or Dying with Others" dimension of the CDS increased by 0.67 points ($p<0.01$). Combined with qualitative feedback such as "a decision-making framework for clinical communication" and "a systematic response process," it is confirmed that the course significantly enhanced students' professional practical abilities.

Furthermore, the study's results also actively responded to the conceptual definition of death education courses proposed in Chapter 1 from cognitive, emotional, and behavioral dimensions, comprehensively verifying its effectiveness.

On the cognitive dimension, through theoretical teaching and cross-cultural comparison, the course helped students establish a rational understanding of "death as a natural life process." The improvement in the Neutral Acceptance dimension of the DAP-R, along with qualitative expressions such as "death is an inevitable stage of life," corroborates positive changes at the cognitive level.

On the emotional dimension, death anxiety was effectively alleviated through designs including emotion journals and VR scenario experiences. Student feedback such as "the sense of safety in the classroom allowed the expression of vulnerability" reflected improved emotional well-being.

On the behavioral dimension, professionally tailored training designs directly enhanced practical abilities. High-frequency terms like "decision-making framework" and "intervention process" indicated an enhanced ability to translate theoretical knowledge into practical strategies.

Overall, through systematic empirical analysis, this study verified the significant effectiveness of a structured death education course in the context of higher education. Its key success factors span multiple dimensions: domain-specific content design, teaching strategies with deep cultural integration, teaching methods focused on practice and

experience, and a mixed-methods evaluation framework that combines quantitative and qualitative approaches.

The course not only fully achieved the multiple indicators outlined in Research Objective 7 but also, by tangibly aligning with the fundamental definition of death education and connecting with the historical development trajectory of the field, demonstrated respect for and advancement of the existing academic tradition.

This study provides a solid empirical foundation and a practical paradigm for promoting the systematic implementation of death education within China's higher education system.

5.3.7 Implementation Reflection and Sustainability Recommendations

Although this pilot death education course achieved significant results, several practical issues and challenges were exposed during implementation. These findings offer important insights for future promotion and continuous optimization of the course.

Firstly, the course implementation faced three main types of challenges. First, high student emotional sensitivity: some students showed significant anxiety and discomfort in the early stages of the course, especially when exposed to high-intensity emotional materials such as VR end-of-life scenario simulations and sharing grief cases. Although effectively mitigated through the "safe word" mechanism and psychological support procedures, emotional guidance and desensitization steps need further optimization to better support students' emotional adaptation process. Second, course scheduling and intensity require further optimization. The current 10-week, 30-hour course volume ensured intervention depth but placed relatively high demands on students' academic workload. Consideration could be given to more flexible modular design or distributing course content across multiple semesters to enhance learning sustainability. Third, teacher training and teaching consistency urgently need strengthening. This study, to control variables, was led by the researcher, but future large-scale promotion would require the involvement of multiple instructors. Therefore, establishing a systematic teacher training mechanism is crucial, ensuring teachers possess death education expertise, cross-cultural sensitivity, and the ability to guide high-intensity emotional discussions.

Secondly, regarding course sustainability, although participating institutions have demonstrated a strong willingness to continue offering the course, its long-term development still depends on systematic support.

First and foremost is advancing the institutional integration of the course: it is recommended to designate the death education course as a compulsory course or a core elective module for relevant majors such as medicine and education, and integrate it into talent cultivation programs and credit systems, thereby solidifying its status in the curriculum.

Faculty development is also a key link: it is suggested that provincial education authorities or professional associations take the lead in establishing training and certification mechanisms for death education instructors. Through regular teaching workshops, seminars, and supervision activities, a stable and high-quality teaching team can be built.

Furthermore, the development and sharing of teaching resources urgently require promotion: joint efforts should be made to establish and share cross-professional death education case libraries, simulation teaching resources (e.g., VR scenarios, ethical board game templates), and digital course platforms. This will help reduce course preparation costs and improve the consistency and quality of teaching.

Finally, policy and financial support are indispensable: education administrative departments should issue specific guiding policies that explicitly encourage universities to implement death education. These policies should be accompanied by special funds for course development, teacher training, and research on effectiveness evaluation, providing solid guarantees for the promotion of the course.

Ultimately, the sustainable development of death education lies in transforming it from a marginal "special course" into an integral part of the general education system. By implementing a series of measures—such as formulating scientific course standards and evaluation mechanisms, strengthening the development of professional faculty teams, and establishing continuous feedback and optimization mechanisms—the promotion and application of this course framework can be widely advanced in universities across mainland China.

This transformation will comprehensively enhance young students' cognitive competence and emotional literacy in addressing death-related issues. It will not only lay a solid professional foundation for future practitioners in relevant fields but also contribute to fostering more rational attitudes and mature social consensus regarding death-related matters.

5.4 Theoretical Implications

This study offers several important theoretical contributions to the fields of death education, curriculum development, and higher education research.

First, the findings extend thanatological theory by demonstrating that death-related attitudes and coping competence are not fixed psychological dispositions but are malleable constructs shaped through structured educational intervention. The significant pre–post improvements observed in death attitudes and coping capacity suggest that systematic curriculum exposure can facilitate adaptive meaning-making processes. This supports theoretical perspectives that conceptualize death anxiety and death acceptance as developmentally responsive rather than static traits. By situating thanatological constructs within an educational framework, the study reinforces the role of pedagogy as a transformative mechanism in reshaping existential understanding.

Second, the results contribute to ecological systems theory by illustrating how perceptions and implementation of death education are embedded within multi-layered contextual systems. Cultural taboos, institutional policies, faculty preparedness, and societal norms interact to influence both attitudes toward death education and its practical feasibility. The study thus empirically supports the notion that educational innovation must be analyzed across micro-, meso-, and macro-level systems. Death education in Mainland China cannot be understood solely at the individual psychological level but must be interpreted within broader cultural and institutional structures.

Third, the validated factor structures of DAP-R, CDS, and FATCOD-B within this sample contribute to cross-cultural psychometric theory. While these instruments were originally developed in Western contexts, the empirical confirmation of their dimensional

stability in a Mainland Chinese higher education setting suggests partial cross-cultural robustness. At the same time, subtle variations in factor emphasis and item loading patterns highlight the importance of contextual validation rather than uncritical instrument transplantation. This reinforces the theoretical principle that psychological constructs must be culturally examined rather than universally assumed.

Fourth, the integration of qualitative and quantitative findings advances methodological theory in mixed-method research. By employing a pragmatic paradigm, this study demonstrates how convergent and quasi-experimental designs can be combined to generate layered explanatory insight. The qualitative data elucidated cultural sensitivities and institutional barriers, while quantitative analysis established measurable patterns and intervention effects. This methodological complementarity strengthens theoretical understanding by linking subjective meaning-making processes with empirically observable behavioral and attitudinal change.

Fifth, the proposed four-dimensional curriculum framework encompassing cognition, emotional processing, practical competence, and value reflection offers a conceptual model for death education that integrates constructivist learning principles with culturally adaptive design. The findings suggest that effective death education requires more than knowledge transmission; it necessitates guided reflection, dialogical engagement, and experiential learning opportunities. This reinforces constructivist theory, which posits that learners actively reconstruct meaning through interaction and contextual engagement.

Nevertheless, this study contributes to comparative curriculum theory by bridging international best practices with localized adaptation. Rather than advocating direct replication of Western models, the findings underscore the theoretical importance of cultural resonance in curriculum design. The development of a culturally sensitive death education framework demonstrates how global pedagogical concepts can be translated into contextually grounded educational innovation.

Beyond psychological outcome measures, the use of VR-based experiential learning also invites interpretation through the lens of Learning Sciences. From a Cognitive Load Theory perspective, immersive simulations must balance intrinsic and

extraneous cognitive demands to facilitate deep learning rather than cognitive overload. The positive outcomes observed in coping competence and neutral acceptance suggest that the VR design likely achieved manageable cognitive load levels; however, the present study did not directly measure cognitive processing or learning efficiency.

Furthermore, Embodied Cognition theory posits that knowledge acquisition is shaped by sensorimotor experience and physical engagement with simulated environments. The VR-based exposure to end-of-life scenarios may have facilitated embodied meaning-making processes that extend beyond verbal instruction. Although this study primarily assessed psychological shifts, future research could incorporate direct learning outcome metrics—such as knowledge retention, transfer ability, and reflective depth—to more fully evaluate the pedagogical mechanisms underlying VR-enhanced death education.
This perspective broadens the interpretative scope of the findings and situates the intervention within both Educational Psychology and Learning Science paradigms.

In summary, the theoretical implications of this study lie in its integration of thanatological psychology, ecological systems thinking, constructivist pedagogy, and pragmatic mixed-method inquiry. By situating death education within both cultural and institutional systems, the research advances theoretical discourse on how higher education can meaningfully engage with existential themes while maintaining cultural sensitivity and educational rigor.

5.5 Practical Implications

The findings of this study provide several practical implications for higher education institutions, curriculum developers, policymakers, and professional training programs in Mainland China.

First, the identification of specific knowledge gaps—particularly in grief and bereavement literacy—suggests an urgent need for structured inclusion of death-related content within higher education curricula. Rather than treating death education as an optional or peripheral topic, universities may consider integrating it into general education modules, medical humanities courses, psychology programs, and teacher education

curricula. The evidence indicates that students across disciplines recognize the importance of death education, supporting the feasibility of interdisciplinary implementation.

Second, the documented cultural and institutional barriers highlight the necessity of policy-level support. Institutional endorsement, clear curriculum guidelines, and formal recognition within academic programs are essential to overcoming hesitancy among faculty members. Universities may develop official curriculum frameworks that define learning outcomes related to death literacy, emotional resilience, ethical reflection, and communication competence. Such policy alignment would reduce uncertainty and provide structural legitimacy for course implementation.

Third, the findings underscore the importance of faculty development. Many educators expressed recognition of the value of death education but reported limited confidence in delivering sensitive content. Professional development workshops, pedagogical training in facilitating emotionally charged discussions, and interdisciplinary collaboration with psychology, nursing, and social work professionals could enhance faculty readiness. Institutional investment in educator preparation is therefore a critical enabling factor for sustainable curriculum integration.

Fourth, the experimental results demonstrating improvements in coping competence and professional preparedness suggest that experiential and reflective pedagogies should be prioritized. Practical strategies may include case-based discussions, simulated end-of-life scenarios, hospice visits, narrative reflection exercises, and guided dialogue sessions. These approaches allow students to engage cognitively and emotionally with death-related topics in a structured and supportive learning environment.

Fifth, the proposed culturally sensitive curriculum framework provides a practical model for phased implementation. Universities may begin with pilot programs targeting specific disciplines, followed by gradual expansion based on evaluation outcomes. Hierarchical or modular course design can allow flexibility, ensuring that content is developmentally appropriate and aligned with disciplinary needs.

Sixth, collaboration with community organizations, hospice centers, and mental health professionals can strengthen real-world relevance and bridge theory with practice. Such partnerships may enhance students' applied understanding while fostering broader societal dialogue about death and dying.

Finally, the findings suggest that death education should be framed not solely as preparation for end-of-life professional encounters but as a component of holistic personal development. By encouraging reflection on life meaning, emotional maturity, and ethical responsibility, higher education institutions can contribute to students' psychological well-being and social competence.

In sum, the practical implications of this study extend beyond curriculum design to encompass institutional policy, faculty training, pedagogical strategy, and interdisciplinary collaboration. When supported by coherent policy structures and culturally adaptive implementation, death education can become a sustainable and transformative component of higher education in Mainland China.

5.6 Limitations of Study

This study focused on the design, implementation, and effectiveness verification of a death education curriculum framework within higher education in mainland China. Although a localized curriculum framework was constructed using mixed methods and phased outcomes were achieved, limitations still exist due to constraints in research conditions, sample characteristics, and methodological design, necessitating further refinement in subsequent research.

Another methodological limitation concerns the potential influence of social desirability bias, particularly given the culturally sensitive nature of death-related discussions in Mainland China. Although the study implemented mitigation strategies—including anonymous data collection, neutral item wording, and administration in a non-evaluative academic context—participants may still have been inclined to provide socially acceptable responses reflecting culturally endorsed attitudes rather than fully candid views. Future research may consider incorporating indirect measurement techniques or implicit assessment tools to further reduce socially desirable responding.

While validated instruments were employed, the cultural specificity of death-related beliefs in Mainland China may not be fully encompassed within Western-derived psychometric constructs. Although translation, back-translation, and factor validation procedures were conducted to ensure contextual appropriateness, certain culturally embedded meanings—particularly those shaped by Confucian relational ethics and collective perspectives—may extend beyond the conceptual scope of existing scales. Future research may benefit from the development of culturally indigenous measurement tools to complement standardized instruments.

An additional methodological consideration relates to the potential influence of the Hawthorne Effect. As death education remains a relatively novel and emotionally engaging topic within the Mainland Chinese higher education context, participants may have demonstrated improved attitudes and coping responses partly due to increased attention, perceived importance of participation, or heightened engagement resulting from being involved in an experimental study. The structured curriculum and use of immersive elements such as VR simulations may have further enhanced participants' motivation and responsiveness. Although baseline assessments and consistent instructional delivery were employed to reduce bias, the quasi-experimental design without full randomization cannot entirely eliminate the possibility that novelty effects contributed to observed improvements. Future research employing randomized controlled trials or longitudinal follow-up assessments could further isolate framework-specific effects from novelty-related influences.

5.6.1 Limitations in Sample Representativeness and External Validity

5.6.1.1 Single Region and Institution Type

Although the quantitative survey in Chapter 4 included university teachers and students from eastern, central, and western regions of mainland China, the participants for the experimental intervention in Chapter 5 were limited to students from the medical school and school of education at a single university in Shandong Province, mainland China. While this sample encompassed two core fields—medicine and education—it was restricted to one institution in a single province, excluding universities from other eastern coastal provinces, central regions, and western regions. Additionally, it did not cover

institutions of different tiers, such as "Double First-Class" universities, local application-oriented undergraduate institutions, or vocational colleges.

Mainland China's vast territory exhibits significant variations in the intensity of regional death culture taboos (e.g., the "death avoidance" tradition in northern regions vs. the "taking life and death lightly" custom in some southern areas) and the allocation of educational resources (e.g., the penetration rate of VR teaching equipment in central and western institutions). These factors may critically influence course implementation effectiveness. Thus, there is a lack of intuitive and comprehensive empirical evidence to support the effectiveness of this curriculum framework across different types of universities in mainland China, limiting the external validity of the study.

5.6.1.2 Insufficient Coverage of Majors and Populations

Although the quantitative study involved 6 broad disciplines including humanities, social sciences, and natural sciences, the experimental intervention focused only on medical and education majors. Death cognition patterns differ fundamentally across majors (e.g., STEM majors tend towards "technological deconstruction of death," humanities/social sciences focus on "cultural symbolic analysis"), and their demand dimensions and course adaptability for death education may significantly diverge from medicine and education, resulting in a lack of empirical validation for the framework's applicability to non-medical, non-education majors. Furthermore, the study did not include non-traditional undergraduate groups such as postgraduate students or adult education students, nor did it cover students with special backgrounds like bereavement experiences or major illness history, making it difficult to fully capture the differentiated needs of various populations, further limiting the generalizability of the research conclusions.

5.6.2 Limitations in Measurement Tools and Data Collection

5.6.2.1 Insufficient Cultural Adaptability and Content Completeness of Scales

Although the scales used in the study underwent reliability and validity testing, they were either self-developed or locally adapted tools, posing some issues: some items may have "cultural bias," for example, the item "cultural or taboo related to death" under "implementation barriers" did not distinguish cultural differences across regions or ethnic

groups, leading to measurement results that cannot accurately reflect the true impact of cultural taboos.

5.6.2.2 Potential Impact of Social Desirability Bias on Data Authenticity

Both during the Chapter 4 survey phase and the Chapter 5 pre-post measurements, there was a lack of collection of "actual behavioral data" from research subjects. Data acquisition relied heavily on self-report methods. This approach is susceptible to "social desirability bias" -- for instance, respondents might overestimate their support for death education due to "political correctness," or deliberately avoid negative cognitive expressions, resulting in data that does not truly reflect their internal attitudes and cognition, thereby affecting the accuracy and reliability of the research conclusions.

Although precautionary measures were implemented to reduce social desirability bias, including anonymous data collection and neutral item construction, the sensitive cultural context surrounding death may still have influenced participants' self-reported attitudes. Future studies may incorporate indirect measurement techniques or implicit assessment tools to further mitigate this limitation.

5.6.3 Limitations in Result Analysis and Conclusion Derivation

5.6.3.1 Insufficient Depth in Difference Analysis, Moderating Effects Unexplored

Although the study conducted difference analysis across "different genders," "different age groups," and "different disciplines," the analysis remained at the superficial level of verifying "whether differences exist," without delving into the underlying causes of these differences or exploring potential moderating factors.

For instance, while the study found that "attitudes toward death education differed significantly across age groups," it did not dissect the driving mechanisms behind such age-based variations (e.g., younger students may be more receptive to death education due to their exposure to diverse cultures, whereas older teachers may exhibit greater resistance influenced by traditional beliefs). Similarly, though "understanding levels of death-related content showed no significant difference across disciplines," the study failed to examine interaction effects such as "discipline + age" (e.g., there might be significant differences in

cognitive levels between young medical students and older engineering students). These aspects require specific attention in future research.

5.6.3.2 Lack of Causal Relationship and Mechanism Analysis

The study only presented phenomenological conclusions through descriptive statistics and difference analysis (e.g., most participants recognize the importance of death education; the lack of policy support is a major barrier). It did not employ statistical methods such as regression analysis or mediation effect analysis to explore the causal relationships and mechanisms between variables. This limitation hinders the clarification of causal links and operational mechanisms among variables, leaving key research directions to be explored in subsequent studies.

A further limitation concerns the absence of a longitudinal follow-up assessment. Although the quasi-experimental findings demonstrated significant improvements in neutral acceptance of death and coping competence immediately following the intervention, the study did not include delayed post-tests (e.g., 6-month or 12-month follow-up measures). Therefore, it remains uncertain whether observed changes reflect stable cognitive restructuring or short-term affective responses to course engagement. Future research employing longitudinal designs would be valuable in examining the durability of attitudinal and psychological shifts over time and in determining whether death education produces sustained transformation beyond the immediate instructional period.

5.7 Recommendations for Future Research

Addressing the limitations of this study and considering the developmental needs of the death education curriculum field, future research can proceed in the following directions to further improve the theoretical system and enhance practical value:

5.7.1 Expand Sample and Research Scope to Enhance Conclusion Generalizability

5.7.1.1 Multi-Region, Multi-Type Institution Sample Coverage

Future research should employ "stratified multi-stage sampling," including universities from different regions such as East (e.g., Beijing, Shanghai), Central (e.g.,

Hubei, Henan), and West (e.g., Sichuan, Gansu), covering different tiers like "Double First-Class" universities, local undergraduate institutions, and vocational colleges. Simultaneously, expand the range of majors covered and conduct separate experimental implementation effect verifications to analyze the moderating effects of different regional cultures, institution types, and professional backgrounds on implementation effectiveness.

5.7.1.2 Broaden Major and Special Population Coverage

To address the insufficient coverage of majors and populations, future research should expand the experimental intervention scope to include STEM fields (e.g., engineering, natural sciences) and humanities/social sciences (e.g., philosophy, sociology). It should also design professionally tailored modules and verify the course's applicability to non-medical and non-education majors.

Meanwhile, the participant pool should be extended to include postgraduate students, adult education students, and special groups such as individuals with bereavement experiences or a history of major illnesses. Through "group comparative analysis" (e.g., examining differences in course needs between bereaved and non-bereaved students), the differentiated demands of various populations can be identified. For example, a "personalized grief counseling" sub-module could be designed for bereaved students, making the curriculum framework more inclusive and targeted.

5.7.2 Optimize Research Methods and Design to Enhance Conclusion Scientifically

5.7.2.1 Precision Experimental Design and Variable Control

A factorial design should be adopted to decompose the core course modules (cognitive, emotional, practical). Key effective components can be identified by testing different module combinations (e.g., "practical experience only" vs. "practical experience + ethics discussion"), thereby providing lightweight solutions for institutions with limited resources.

A "no-treatment control group" should be added, and a triple comparison framework—"death education group vs. mental health group vs. blank group"—should be applied. This framework helps isolate the "course participation effect" and accurately

assess the independent role of death education (distinct from the general effects of mental health interventions or natural changes).

The data collection period should be extended to 1–2 years, with follow-up assessments scheduled at 1 month, 6 months, and 12 months post-intervention. This design allows verification of the stability of the course effects and analysis of how the sociocultural environment and subsequent life events (e.g., personal bereavement experiences, professional practice exposure) influence these effects.

5.7.2.2 Development of Localized Measurement Tools and Multi-Dimensional Data Collection

To address the insufficient cultural adaptability and content completeness of existing scales, future research can develop context-specific measurement tools grounded in Chinese cultural realities. For instance, when revising the "implementation barriers" dimension, items such as "regional cultural differences" and "ethnic funeral customs" should be added to distinguish variations in cultural taboos between the Han ethnicity and ethnic minorities, as well as between rural and urban areas.

Meanwhile, data collection methods should be enriched by integrating multi-source data to reduce bias. Examples include:Adopting the "diary method" (where students record daily death-related emotions and events) to capture dynamic changes over time;Using "scenario simulation tests" (e.g., simulating a scenario where "family members refuse end-of-life information disclosure") to assess students' practical coping abilities;Incorporating "physiological indicator monitoring" (e.g., heart rate, cortisol levels) to supplement the measurement of physiological responses to death anxiety.

This approach enables the integration of multi-dimensional data—"quantitative + qualitative + physiological indicators"—thereby enhancing the objectivity and comprehensiveness of research results.

Furthermore, multi-source evaluation should be introduced—for instance, collecting instructors' ratings of students' "ability to communicate about death-related topics" and parents' feedback on "frequency of death-related conversations within the family." Using triangulation of "self-report + other-evaluation + behavioral data" reduces social desirability bias and enhances data authenticity.

5.7.3 Deepen Result Analysis to Clarify Causal Mechanisms

5.7.3.1 Explore Difference Causes and Interaction Effects

Addressing the insufficient depth of difference analysis, future research needs to combine theoretical frameworks to explore the driving mechanisms behind differences: for example, when analyzing "attitude differences across age groups," introduce mediating variables like "degree of multicultural contact" and "family death beliefs" to test the hypothesis that "younger students accept death education more easily due to exposure to diverse cultures."

5.7.3.2 Conduct Causal and Mechanism Analysis

Advanced statistical methods should be employed to reveal the action paths between variables:

First, regression analysis can be used to identify the relative importance of barrier factors such as "policy support," "cultural taboos," and "resource allocation." This helps clarify priorities for promotion (e.g., prioritizing the resolution of policy gaps).

Second, mediation effect analysis can verify the mediating role of "attitude toward death education" in the relationship between "knowledge level" and "willingness to participate," or the mediating effect of "course participation level" between "teaching methods" and "reduction in death anxiety."

Third, moderation effect analysis should be introduced to examine how factors like "regional culture" and "family support" influence course effectiveness. For example, it can test the hypothesis that "the course has a more significant effect on reducing death anxiety in southern regions due to higher cultural openness."

These approaches clarify the causal relationships and action mechanisms between variables, thereby enhancing the theoretical depth of the research conclusions.

5.7.4 Strengthen Course Practice and Promotion Adaptability

5.7.4.1 Improve Course Iteration and Dynamic Feedback Mechanisms

Addressing the limitation of lacking pre-experiment adjustments in the course framework, future research can construct an iterative process of "design - pilot experiment

- revision - formal experiment": before large-scale experiments, conduct small-scale pilot experiments in 2-3 different types of institutions, collecting feedback on issues like "professional content deviation" and "teaching method incompatibility," and adjust course content promptly; set up mid-term tracking (e.g., 3 months, 6 months post-intervention) to verify course effect stability, avoid misjudging long-term value based on short-term effects, ensuring the course framework has high adaptability before formal promotion.

5.7.4.2 Explore Multi-Scenario Promotion Strategies

Future research needs to focus on the adaptability between the institutional environment and course promotion. On one hand, conduct "policy embedding" research, such as analyzing the impact of different provinces' "general education credit policies" and "teacher certification standards" on course implementation, proposing specific policy suggestions for "incorporating death education into general required courses" (e.g., credit recognition methods, scheduling coordination mechanisms); on the other hand, design differentiated promotion paths for institutions with different resource conditions -- resource-rich institutions can implement "full-module immersive courses," while resource-limited institutions can promote lightweight solutions of "core modules + online resources," and evaluate the cost-effectiveness of different schemes, providing affordable practice paths for universities in resource-scarce regions.

5.7.4.3 Multi-Actor Collaborative Practice Ecosystem Construction

It is recommended that future research focus on establishing a multi-stakeholder collaborative mechanism involving "universities, hospitals, communities, families, and the government." Action research should be adopted to explore the role positioning and cooperation models of various stakeholders—for example, investigating how universities can jointly establish "death education practice bases" with community health service centers, how hospitals can provide high-quality clinical internship resources for students, how families can consolidate course effects through "parent-child dialogues about death," and how the government can introduce supporting policies such as "certification standards for death education teachers" and "methods for course credit recognition."

Meanwhile, "large-scale promotion pilot studies" should be conducted. Specifically, 2–3 provinces from different regions (e.g., Zhejiang in the east, Hubei in the central region, and Sichuan in the west) could be selected for a 2–3 years course pilot. During the pilot

phase, systematic feedback on emerging issues (e.g., teacher shortages, parental complaints, insufficient resources) should be collected to form a closed loop of "problem diagnosis → solution adjustment → effect evaluation." This process will provide practical guidelines for the nationwide promotion of death education.

Ultimately, this effort aims to promote death education to become an indispensable component of the higher education system, helping young people develop scientific views on life and death and enhancing their quality of life.

5.8 Conclusion

This study systematically examined the current status, challenges, and transformative potential of death education within higher education institutions in Mainland China. Through the integration of qualitative inquiry, quantitative analysis, and quasi-experimental validation, the research provided a comprehensive and multi-dimensional understanding of educational needs, stakeholder perceptions, institutional barriers, and curriculum impact.

The findings reveal that while students and faculty generally recognize the value of death education, significant knowledge gaps, cultural sensitivities, and structural constraints continue to limit its systematic integration. At the same time, the quasi-experimental results demonstrate that a structured and culturally responsive death education curriculum can significantly enhance students' attitudes toward death, coping competence, and professional preparedness. These outcomes suggest that death education, when thoughtfully designed and pedagogically supported, has the capacity to foster both psychological growth and professional development.

Importantly, the study underscores that death education in Mainland China must be approached through culturally adaptive frameworks rather than direct transplantation of international models. By combining global theoretical insights with localized empirical evidence, the research contributes a contextually grounded curriculum framework that balances knowledge acquisition, emotional processing, practical competence, and value reflection.

Beyond its local implications, this study contributes a distinctive conceptual and practical framework to the global field of death education. The proposed model advances existing literature by integrating culturally grounded philosophical perspectives particularly Confucian relational values emphasizing filial piety, harmony, and moral responsibility with contemporary thanatological theory. This synthesis offers a culturally adaptive approach to death education within collectivist societies where death remains socially sensitive.

Furthermore, the framework innovatively combines high-technology and high-touch pedagogical strategies. The incorporation of immersive VR-based experiential simulations provides structured exposure to death-related scenarios, while narrative reflection, guided dialogue, and meaning-centered discussion facilitate emotional processing and existential integration. This dual modality bridges cognitive learning with affective transformation, offering a replicable model for culturally sensitive curriculum design.

By empirically validating this blended framework through a mixed-method and quasi-experimental design, the study extends death education research beyond predominantly Western contexts and demonstrates its feasibility within a traditionally death-avoidant cultural environment. In doing so, it contributes both theoretical refinement and practical implementation guidance to the international body of knowledge on death education.

While the present study is situated within Mainland China, its implications extend beyond national boundaries. By demonstrating that death education can be systematically implemented within a collectivist, culturally sensitive, and traditionally death-avoidant context, this research offers valuable insights for other societies in Asia and the Middle East where similar cultural dynamics exist. The validated framework illustrates that culturally grounded adaptation rather than direct transplantation of Western models is essential for effective curriculum integration in such contexts. Accordingly, this study does not merely document local educational needs but advances global death education theory by introducing a culturally responsive implementation pathway applicable to collectivist societies. In doing so, it expands the geographical and theoretical scope of the field and provides a replicable model for future cross-cultural educational innovation.

Importantly, while grounded in the Mainland Chinese context, the implications of this research extend to other collectivist and culturally sensitive societies where death remains socially regulated or philosophically mediated. By demonstrating that culturally adaptive redesign rather than direct transplantation of Western models can successfully facilitate death education implementation, this study provides a transferable pathway for higher education systems across Asia and the Middle East facing similar cultural dynamics. In this respect, the research does not merely document local reform but establishes a viable implementation model that contributes to the evolution of global death education theory within non-Western contexts.

Beyond curriculum reform, this study highlights a broader educational mission: preparing students to engage with existential realities in a reflective, humane, and professionally competent manner. Death education, therefore, should not be viewed merely as an academic subject but as an integral component of holistic higher education development. In addressing mortality, higher education institutions may also cultivate resilience, empathy, ethical awareness, and meaningful engagement with life itself.

While limitations regarding sampling scope and intervention duration warrant further investigation, the present findings offer a strong foundation for continued research and institutional innovation. Future studies may expand longitudinal assessment, explore diverse disciplinary contexts, and further refine culturally sensitive pedagogical models.

In conclusion, this research affirms that death education in Mainland China is both necessary and feasible. Through evidence-based curriculum design, institutional support, and culturally informed implementation, death education can evolve from a marginal topic into a transformative educational endeavor that enriches individuals, professions, and society as a whole.

5.9 Chapter Summary

This chapter synthesized the findings of the study by discussing the results in relation to the research questions, theoretical foundations, and existing literature. Through structured discussion by research question, the chapter integrated qualitative and quantitative evidence to provide a comprehensive interpretation of educational needs, stakeholder perceptions, institutional barriers, and the experimental impact of the structured death education curriculum.

The comparison with international and domestic scholarship positioned the present findings within broader theoretical and empirical discourse, highlighting both convergence with global research and context-specific characteristics of death education in Mainland China. The chapter further articulated the theoretical implications of the study, demonstrating contributions to thanatology, ecological systems perspectives, constructivist pedagogy, and mixed-method inquiry. Practical implications were also presented, offering actionable recommendations for curriculum development, institutional policy, and faculty capacity building.

The limitations of the study were acknowledged, and directions for future research were proposed to extend longitudinal evaluation and broaden contextual applicability. The chapter concluded by reaffirming the transformative potential of culturally sensitive death education in higher education settings.

Overall, Chapter 5 consolidates the study's empirical evidence and theoretical contributions, reinforcing the argument that structured and contextually grounded death education can serve as a meaningful and sustainable component of higher education reform in Mainland China.

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APPENDICES

Appendix 1:
SEMI-STRUCTURED INTERVIEW GUIDE FOR FACULTY MEMBERS AND ADMINISTRATORS

The following interview guide has been developed to explore faculty members' and administrators' perceptions, attitudes, and experiences regarding the inclusion of death education in the curriculum at higher education institutions in Mainland China. The questions are designed to be open-ended and flexible, allowing participants to share their insights freely.

Section 1: Attitudes towards the Inclusion of Death Education in the Curriculum

1.How familiar are you with the concept of death education? Can you describe what you think it entails?

2.What is your general attitude towards the inclusion of death education in the curriculum of your institution?

3.Do you believe death education is relevant for students in your academic discipline? Why or why not?

4.In your opinion, what role should death education play in the overall academic curriculum in higher education?

5.How do you think death education might benefit students, particularly those in healthcare, social sciences, or humanities fields?

Section 2: Perceived Cultural Barriers to Discussing Death in an Academic Context

1.In Chinese culture, death is often considered a sensitive and taboo subject. How do you think cultural beliefs and traditions affect the discussion of death in the academic setting?

2.Have you observed any cultural resistance to discussing death-related topics among students or faculty? If so, how do you think this impacts the teaching of death education?

3.Do you think it would be challenging to integrate death education into a curriculum in Mainland China, given cultural sensitivities? Why or why not?

4.How do you think universities could address cultural concerns or discomfort surrounding death in an educational context?

5.Do you feel that death education could be delivered in a way that is culturally sensitive and respectful to traditional Chinese beliefs? If so, how?

Section 3: Institutional and Logistical Challenges in Implementing Death Education

1.What institutional or logistical challenges do you foresee in implementing death education within the curriculum of your institution?

2.Are there specific policies or regulations that might affect the introduction of death education in your institution?

3.How do you think the current curriculum structure might hinder or support the inclusion of death education?

4.Do you think faculty members would be willing or prepared to teach death education? What might be required to encourage them to incorporate it into their teaching?

5.What role do you think administrative support plays in the integration of death education into the curriculum?

Section 4: The Role of Death Education in Preparing Students for Professional Practice

1.How important do you think death education is in preparing students for their professional careers, particularly those who will work in healthcare, social work, or other related fields?

2.What specific skills or knowledge do you think students could gain from death education that would benefit them in their future professions?

3.How can death education enhance students' ability to engage with sensitive issues related to death and dying in their professional practice?

4.Are there particular areas of healthcare or social work where you feel death education would be most beneficial for students? Why?

5.In what ways do you think death education can contribute to students' emotional and psychological preparedness when dealing with death in their professional roles?

Section 5: Suggestions for Improving or Redesigning the Curriculum

1.In your opinion, what changes or improvements would need to be made to the current curriculum to effectively incorporate death education?

2.How could death education be integrated into existing courses or programs, especially for students in fields like healthcare, psychology, or social sciences?

3.What resources (e.g., teaching materials, training for faculty, external experts) do you think would be necessary to support the inclusion of death education?

4.What are your thoughts on the potential delivery methods for death education (e.g., workshops, seminars, lectures, experiential learning)? Which methods do you think would be most effective?

5.How could death education be made more accessible and engaging for students, especially those who may have cultural or personal discomfort with the topic?

Section 6: Conclusion and Reflection

1.If death education were to be successfully integrated into the curriculum, how do you think it would impact the overall educational experience for students?

2.Are there any additional comments or insights you would like to share regarding the inclusion of death education in higher education institutions in Mainland China?

3.What do you think would be the key challenges in making death education a mandatory part of higher education, and how can these be overcome?

SEMI-STRUCTURED INTERVIEW GUIDE FOR FACULTY MEMBERS AND ADMINISTRATORS IN CHINESE

半结构式访谈指南：面向教职员工及管理人员

引言

本访谈指南旨在探讨教师和行政人员对将死亡教育纳入课程的看法、态度和经验这些问题被设计为开放式和灵活的，允许参与者自由地分享他们的见解

第一节：对将死亡教育纳入课程的态度

1.您对死亡教育的概念有多熟悉？您能描述一下您认为的内容吗？

2.您对将死亡教育纳入您所在机构的课程的一般态度是什么？

3.您认为死亡教育与您所在学科的学生有关吗？为什么或为什么不呢？

4.在您看来，死亡教育在高等教育的整体学术课程中应该扮演什么角色？

5.您认为死亡教育会使学生受益，特别是那些在医疗保健、社会科学或人文领域的学生？

第二节：在学术背景下讨论死亡的人所感知到的文化障碍

1.在中国文化中，死亡通常被认为是一个敏感和禁忌的话题您认为文化信仰和传统如何影响学术环境中对死亡的讨论？

2.您是否观察到学生或教师对讨论与死亡有关的话题有任何文化阻力？如果是这样，您认为这将如何影响死亡教育的教学？

3.考虑到文化的敏感性，您认为将死亡教育融入中国大陆的课程会具有挑战性吗？为什么或为什么不呢？

4.您认为大学能如何在教育背景下解决围绕死亡的文化问题或不适？

5.您是否认为死亡教育可以以一种文化敏感和尊重中国传统信仰的方式进行？如果是，如何处理？

第三节：在实施死亡教育中所面临的制度和后勤挑战

1.您认为在您的机构的课程中实施死亡教育会面临哪些机构或后勤方面的挑战？

2.是否有具体的政策或法规可能会影响在您的机构实施死亡教育？

3.您认为当前的课程结构可能会如何阻碍或支持纳入死亡教育？

4.您认为教师们会愿意或准备好教授死亡教育吗？究竟需要什么来鼓励他们把它融入到他们的教学中去呢？

5.您认为行政支持在将死亡教育融入课程中扮演了什么角色？

第四节：死亡教育在为学生准备专业实践中的作用

1.您认为死亡教育在为学生的职业生涯做准备方面有多重要，特别是那些将在医疗保健、社会工作或其他相关领域工作的人？

2.您认为学生可以从死亡教育中获得哪些特定的技能或知识，从而使他们在未来的职业中受益？

3.死亡教育如何提高学生在专业实践中参与与死亡和死亡有关的敏感问题的能力？

4.在医疗保健或社会工作领域，您是否认为死亡教育对学生最有益？为什么？

5.您认为死亡教育在什么方面可以帮助学生在专业角色中处理死亡时的情感和心理准备？

第五节：关于改进或重新设计课程的建议

1.您认为，需要对当前的课程进行哪些改变或改进，以有效地纳入死亡教育？

2.如何将死亡教育融入到现有的课程或项目中，特别是对诸如医疗保健、心理学或社会科学等领域的学生？

3.您认为有必要提供哪些资源（例如，教材、教师培训、外部专家）来支持纳入死亡教育？

4.您对死亡教育的潜在传递方法（如研讨会、工作坊、讲座、体验式学习）有什么看法？您认为哪种方法最有效？

5.如何让死亡教育对学生，特别是那些可能对这个话题有文化或个人不适的人？

第六节：结论与反思

1.如果死亡教育要被成功地融入到课程中来，您认为它将如何影响学生的整体教育体验呢？

2.关于中国大陆高等教育机构纳入死亡教育，您是否有其他意见或见解？

3.您认为使死亡教育成为高等教育的强制性组成部分的关键挑战是什么？如何克服这些挑战？

Appendix 2:
FOCUS GROUP DISCUSSION GUIDE FOR STUDENTS

The following questions are designed to facilitate a group discussion among students regarding the inclusion of death education in the curriculum at higher education institutions in Mainland China. The focus group will encourage participants to share their views, experiences, and suggestions regarding the topic. The discussion will explore perceptions of death education, cultural barriers, and potential benefits or challenges associated with its integration into the curriculum.

Section 1: Understanding and Perceptions of Death Education

1.Understanding the Concept of Death Education

- What does the term "death education" mean to you? What do you think it would involve if it were part of your academic program?

- Can you share any prior experiences or exposure to topics related to death, such as death and dying, grief, or end-of-life care, in your studies?

2.Relevance of Death Education

- Do you believe that death education is important for university students? Why or why not?

- How do you think death education could be relevant to your personal development or professional career, especially in fields like healthcare, social work, or humanities?

- How might death education contribute to your ability to deal with issues related to death, loss, or grief in your life or future profession?

Section 2: Cultural Perspectives on Death Education

1.Cultural Sensitivity

- In Chinese culture, death is often a sensitive topic. How do you feel about discussing death in an academic setting? Do you think it would be uncomfortable or difficult for students?

- How do you think Chinese cultural beliefs about death might influence the acceptance of death education in higher education institutions?

- Do you think there are cultural taboos or social norms that might hinder or prevent open discussion of death within the university environment? How could these be addressed?

2.Attitudes Toward Discussing Death in a Group Setting

- How comfortable would you feel discussing topics related to death and dying in a group setting, such as a class or seminar?

- How do you think your peers would react to having death education as part of the curriculum? Do you think they would be open to it?

Section 3: Perceived Benefits and Challenges of Death Education

1.Potential Benefits

oHow do you think death education could benefit you personally? What do you think students could gain from it?

oFor students planning to pursue careers in healthcare or social work, how do you think death education might help prepare them for their future roles?

oDo you think death education could help students develop emotional or psychological resilience when dealing with loss, grief, or end-of-life care?

2.Challenges and Barriers

oWhat challenges do you think could arise when trying to implement death education in your institution? (e.g., cultural, institutional, personal discomfort)

oDo you think any barriers exist that might prevent students or faculty from fully engaging with death education? What are they, and how could these barriers be overcome?

oAre there particular aspects of death education that you think might be difficult to integrate into the current curriculum or university environment?

Section 4: Suggestions for Implementing and Structuring Death Education

1.Curriculum Integration

oHow do you think death education could be best integrated into your current program of study? Should it be an optional course, a mandatory course, or integrated into other subjects?

oWhat topics or aspects of death education would you want to see covered? (e.g., death rituals, grief counseling, ethical issues surrounding end-of-life care)

oDo you think that death education should be integrated into specific courses, or should it be a standalone course in the curriculum?

2.Teaching Methods and Delivery

oWhat type of teaching methods would you find most effective for learning about death? For example, would you prefer lectures, workshops, seminars, or experiential learning activities?

oHow do you think death education should be structured to make it more engaging and accessible to students from different disciplines and backgrounds?

oShould the curriculum include guest speakers, fieldwork, or practical experiences related to death and dying? If so, what kind of activities or learning opportunities would you suggest?

3.Faculty and Institutional Support

- What role do you think faculty and administrators should play in facilitating death education? What kind of support would you expect from your professors or the university when it comes to discussing sensitive topics like death?

- How important do you think administrative support is in ensuring that death education becomes a formal part of the curriculum? What steps do you think the university should take to promote and normalize death education?

Section 5: Conclusion and Reflections

1.Overall Impact

- How do you think including death education in the curriculum might affect the university experience for students? What positive or negative impacts do you foresee?

- Do you believe that death education would improve students' ability to deal with death-related situations in their personal lives or future professional careers?

- What do you think is the most important thing that should be considered when designing a death education curriculum for Mainland China?

2.Final Thoughts

- Are there any other thoughts or ideas you'd like to share about death education in higher education institutions? What do you think could be done to make death education a more acceptable and useful part of the university experience?

FOCUS GROUP DISCUSSION GUIDE FOR STUDENTS IN CHINESE

面向学生的焦点小组讨论指南

引言

本次焦点小组讨论旨在鼓励同学们就“在中国大陆高等教育机构的课程中开设死亡教育”这一议题进行深入探讨我们希望大家能畅所欲言，分享自己对该主题的看法、经历和建议本次讨论将围绕同学们对死亡教育的理解、可能存在的文化障碍，以及将死亡教育融入课程的潜在益处和挑战等方面展开

第一部分：对死亡教育的理解与认识

1.理解死亡教育的概念

“死亡教育”这个词对你而言意味着什么？如果它成为你大学课程的一部分，你认为它会包含哪些内容？

在你的学习或生活中，你是否接触过任何与死亡相关的话题，例如死亡与临终、丧亲之痛或临终关怀等？能否分享一下？

2.死亡教育的相关性

你认为死亡教育对大学生来说重要吗？为什么？

你认为死亡教育与你的个人发展或职业规划有何关联？特别是对于那些未来可能从事医疗、社工或人文社科等领域的同学？

你认为死亡教育如何帮助你提升应对生活中或未来工作中可能遇到的死亡、失去或悲伤等问题的能力？

第二部分：关于死亡教育的文化视角

1.文化敏感性

在中国文化中，死亡通常是一个比较敏感的话题你认为在学术场合讨论死亡话题会怎么样？你会觉得不自在或者困难吗？

你认为中国文化中关于死亡的观念，会对高等教育机构接受死亡教育产生什么影响？

你认为是否存在某些文化禁忌或社会规范可能会阻碍在大学中公开讨论死亡？我们应该如何克服这些障碍？

2.对群体讨论死亡的态度

在一个小组环境中讨论与死亡相关的话题，你感觉如何？

你认为你的同龄人会对学校开设死亡教育课程作何反应？他们会接受吗？

第三部分：对死亡教育的潜在益处和挑战的认知

1.潜在的好处

你认为死亡教育对你个人有什么好处？你认为同学们可以从中获得什么？

对于未来计划从事医疗或社会工作领域的同学，你认为死亡教育会如何帮助他们为未来的工作做好准备？

你认为死亡教育可以帮助同学们培养应对失去、悲伤或临终关怀时的情感或心理韧性吗？

2.挑战和障碍

你认为在你的学校实施死亡教育可能会面临哪些挑战？例如，文化方面的、制度方面的，或者个人不适应等

你认为是否存在一些障碍可能会阻止学生或教师积极参与死亡教育？这些障碍是什么？我们应该如何克服它们？

你认为死亡教育的哪些方面可能难以融入到现有的课程体系或大学环境中？

第四部分：关于死亡教育实施和组织的建议

1.课程整合

你认为死亡教育应该以怎样的方式融入你现在的学习计划中？作为选修课、必修课，还是融入到其他科目中？

你希望在死亡教育课程中学习哪些主题或方面？例如，丧葬仪式、悲伤辅导、临终关怀的伦理问题等

你认为死亡教育应该被设计成一门独立的课程，还是融入到已有的特定课程中？

2.教学方法与形式

你认为哪种教学方法对学习死亡教育最有效？例如，你更喜欢讲座、研讨会、工作坊，还是体验式学习活动？

你认为应该如何设置死亡教育课程，才能使其对来自不同专业和背景的同学都更具吸引力和更容易理解？

课程中是否应该包括嘉宾讲座、实地考察或与死亡相关的实践活动？如果有，你建议开展哪些活动或学习机会？

3.教师和机构的支持

你认为教师和学校管理人员在推广死亡教育方面应该发挥什么作用？在讨论死亡等敏感话题时，你希望老师或学校提供什么样的支持？

你认为行政支持对于确保死亡教育成为课程的正式组成部分有多重要？你认为大学应该采取哪些措施来促进和普及死亡教育？

第五部分：总结与思考

1.整体影响

你认为在大学课程中加入死亡教育会对学生的大学生活产生什么影响？你认为会带来哪些积极或消极的结果？

你认为死亡教育会提高学生在个人生活或未来工作中应对死亡相关问题的能力吗？

你认为在中国大陆设计死亡教育课程时，最重要的考虑因素是什么？

2.最后的想法

关于在高等教育机构中开展死亡教育，你还有其他什么想法或建议吗？你认为可以做些什么，使死亡教育更容易被大学接受并对大家更有帮助？

Appendix 3:
STRUCTURED SURVEY FOR STUDENTS AND FACULTY ON DEATH EDUCATION IN HIGHER EDUCATION

Instructions

Dear Participant,Thank you for taking the time to participate in this survey. Your input is highly valuable for understanding the potential and current landscape of integrating death education into higher education curricula. This survey aims to gather data from both students and faculty regarding their knowledge, attitudes, perceptions, and experiences with death education. Participation is voluntary, and your responses will remain strictly confidential. You may choose to withdraw at any time without penalty. The survey is divided into different sections, containing both closed and open-ended questions, to comprehensively explore your views on death education. We kindly ask that you carefully read each question and answer honestly, reflecting your own experiences and perspectives. Your participation is crucial to the success of this research. Thank you again for your time and valuable contribution.

Section 1: Demographic Information

Please provide the following demographic information. Your responses will remain confidential.

1. **Age**
    - Under 18
    - 18-24
    - 25-34
    - 35-44
    - 45-54
    - 55 and above
2. **Gender**
    - Male
    - Female
    - Non-binary
    - Prefer not to say
    - Other (please specify): _____
3. **Academic Discipline**
    - Humanities
    - Social Sciences
    - Natural Sciences
    - Healthcare/Medicine
    - Engineering
    - Education

- Other (please specify): _____

4. **Current Role**
   - Student
   - Faculty Member
   - Administrator
   - Other (please specify): _____

Section 2: Perceived Importance of Death Education

Please indicate your level of agreement with the following statements by selecting the appropriate option.

5. Death education is important for all university students.
   - Strongly Agree
   - Agree
   - Neutral
   - Disagree
   - Strongly Disagree
6. Death education should be included as part of the core curriculum in higher education institutions.
   - Strongly Agree
   - Agree
   - Neutral
   - Disagree
   - Strongly Disagree
7. Death education is particularly important for students in healthcare-related fields.
   - Strongly Agree
   - Agree
   - Neutral
   - Disagree
   - Strongly Disagree
8. Learning about death and dying can help students develop better psychological resilience.
   - Strongly Agree
   - Agree
   - Neutral
   - Disagree
   - Strongly Disagree

Section 3: Attitudes Towards the Inclusion of Death Education

Please answer the following questions based on your personal views.

9. What is your overall attitude towards the inclusion of death education in university curricula?
   - Very Positive
   - Positive

- Neutral
- Negative
- Very Negative

10. Do you think that integrating death education into the curriculum could benefit students in terms of their personal growth?
    - Yes
    - No
    - Not Sure
11. Would you be comfortable discussing topics related to death (such as grief, dying, and end-of-life care) in an academic context?
    - Yes
    - No
    - Not Sure

Section 4: Barriers and Challenges to Implementing Death Education

Please rate the following barriers to integrating death education into the curriculum.

12. Cultural sensitivities or taboos related to death are a significant barrier to implementing death education.
    - Strongly Agree
    - Agree
    - Neutral
    - Disagree
    - Strongly Disagree
13. Lack of trained faculty members is a barrier to including death education in the curriculum.
    - Strongly Agree
    - Agree
    - Neutral
    - Disagree
    - Strongly Disagree
14. There are insufficient institutional resources (e.g., funding, teaching materials) to support death education programs.
    - Strongly Agree
    - Agree
    - Neutral
    - Disagree
    - Strongly Disagree
15. There is a general lack of interest or awareness among students and faculty regarding the importance of death education.
    - Strongly Agree
    - Agree
    - Neutral
    - Disagree
    - Strongly Disagree

16. University policies and regulations are not supportive of introducing death education into the curriculum.
    - Strongly Agree
    - Agree
    - Neutral
    - Disagree
    - Strongly Disagree

Section 5: Knowledge of Death Education and Related Topics

Please indicate your level of knowledge regarding the following topics.

17. **Death Education**
    - Very Knowledgeable
    - Knowledgeable
    - Somewhat Knowledgeable
    - Not Knowledgeable
18. **Grief and Bereavement**
    - Very Knowledgeable
    - Knowledgeable
    - Somewhat Knowledgeable
    - Not Knowledgeable
19. **End-of-Life Care**
    - Very Knowledgeable
    - Knowledgeable
    - Somewhat Knowledgeable
    - Not Knowledgeable
20. **Death Rituals and Cultural Practices**
    - Very Knowledgeable
    - Knowledgeable
    - Somewhat Knowledgeable
    - Not Knowledgeable

Section 6: Psychological and Professional Benefits of Death Education

Please rate the following statements on the potential psychological and professional benefits of death education.

21. Death education can help students cope with personal experiences of grief and loss.
    - Strongly Agree
    - Agree
    - Neutral
    - Disagree
    - Strongly Disagree
22. Death education is important for preparing students in healthcare professions to manage death-related issues in their practice.
    - Strongly Agree

- Agree
- Neutral
- Disagree
- Strongly Disagree

23. Death education can help students develop empathy and emotional intelligence in their future professional roles.
    - Strongly Agree
    - Agree
    - Neutral
    - Disagree
    - Strongly Disagree
24. Death education can enhance students' ability to engage in conversations about death with patients, families, and colleagues in a professional setting.
    - Strongly Agree
    - Agree
    - Neutral
    - Disagree
    - Strongly Disagree

Section 7: Open-Ended Questions

Please provide brief answers to the following questions:

25. In your opinion, what is the most important reason for including death education in higher education curricula?
26. What do you think could be done to overcome the cultural or institutional barriers to implementing death education in universities?
27. How do you think death education could be designed to be culturally sensitive and relevant in Mainland China?
28. What additional topics or aspects of death education do you think should be included in the curriculum?
29. Any further comments or suggestions about integrating death education into higher education institutions?

STRUCTURED SURVEY FOR STUDENTS AND FACULTY ON DEATH EDUCATION IN HIGHER EDUCATION IN CHINESE

关于高等教育死亡教育的师生结构化调查

指导语：

非常感谢您抽出时间参与本次调查您的反馈对于我们理解在高等教育课程中整合死亡教育的潜力和现状至关重要本次调查旨在收集学生和教职员工在死亡教育方面的知识、态度、看法和经验参与本调查完全出于自愿，您的回答将被严格保密您可以随时选择退出，而不会受到任何惩罚本调查分为不同的部分，包含封闭式和开放式问题，旨在全面了解您对死亡教育的看法我们恳请您认真阅读每一道题目，并如实回答，反映您的实际经验和观点您的参与对于本研究的成功至关重要再次感谢您的时间和宝贵贡献

第一节：人口统计信息

请提供以下人口统计信息您的回复将保持保密状态

1. **年龄**
    - 18 岁以下
    - 18-24
    - 25-34
    - 35-44
    - 45-54
    - 55 及以上
2. **性别**
    - 男性的
    - 女性的
    - 非二元性别
    - 不想回答
    - 其他的（请注明）：_____
3. **学术学科**
    - 人文学科
    - 社会科学
    - 自然科学
    - 医疗保健/医学
    - 工程
    - 教育
    - 其他的（请注明）：_____
4. **当前角色**
    - 学生
    - 教员

- 管理员
- 其他的（请注明）：_____

第 2 节：对死亡教育重要性的认知

请通过选择适当的选项来表明您对以下声明的同意程度

5. 死亡教育对所有的大学生都很重要
    - 非常同意
    - 同意
    - 中立
    - 不同意
    - 非常不同意
6. 死亡教育应作为高等教育核心课程的一部分
    - 非常同意
    - 同意
    - 中立
    - 不同意
    - 非常不同意
7. 死亡教育对医疗保健相关领域的学生尤其重要
    - 非常同意
    - 同意
    - 中立
    - 不同意
    - 非常不同意
8. 学习关于死亡和死亡可以帮助学生发展更好的心理恢复力
    - 非常同意
    - 同意
    - 中立
    - 不同意
    - 非常不同意

第 3 节：对纳入死亡教育的态度

请根据您的个人观点回答以下问题

10. 你对将死亡教育纳入大学课程的总体态度是什么？
    - 非常积极
    - 积极的
    - 中性的
    - 消极的
    - 非常消极的
11. 你认为将死亡教育融入课程有利于学生的个人成长吗？

- 是
- 不
- 不确定

11. 你愿意在学术背景下讨论与死亡相关的话题（如悲伤、死亡和临终关怀）吗？
    - 是
    - 不
    - 不确定

第 4 节：实施死亡教育的障碍和挑战

请评估将死亡教育纳入课程的以下障碍

12. 与死亡有关的文化敏感性或禁忌是实施死亡教育的一个重大障碍
    - 非常同意
    - 同意
    - 中立
    - 不同意
    - 非常不同意
13. 缺乏训练有素的教师是将死亡教育纳入课程的一个障碍
    - 非常同意
    - 同意
    - 中立
    - 不同意
    - 非常不同意
14. 没有足够的机构资源（例如，资金、教材）来支持死亡教育项目
    - 非常同意
    - 同意
    - 中立
    - 不同意
    - 非常不同意
15. 学生和教师对死亡教育的重要性普遍缺乏兴趣或认识
    - 非常同意
    - 同意
    - 中立
    - 不同意
    - 非常不同意
16. 大学的政策和法规并不支持将死亡教育引入课程
    - 非常同意
    - 同意
    - 中立

- 不同意
- 非常不同意

第 5 节：死亡教育知识及相关主题

请说明您对以下主题的认识水平

17. **死亡教育**
    - 非常了解
    - 比较了解
    - 略有了解
    - 不了解
18. **悲伤和丧亲之痛**
    - 非常了解
    - 比较了解
    - 略有了解
    - 不了解
19. **临终关怀**
    - 非常了解
    - 比较了解
    - 略有了解
    - 不了解
20. **死亡仪式和文化习俗**
    - 非常了解
    - 比较了解
    - 略有了解
    - 不了解

第六节：死亡教育的心理和职业益处

请评价以下关于死亡教育的潜在心理和职业益处的陈述

21. 死亡教育可以帮助学生应对个人的悲伤和失去的经历
    - 非常同意
    - 同意
    - 中立
    - 不同意
    - 非常不同意
22. 死亡教育对于让医疗保健专业的学生准备在其实践中管理与死亡相关的问题非常重要
    - 非常同意
    - 同意
    - 中立

- 不同意
- 非常不同意

23. 死亡教育可以帮助学生在他们未来的专业角色中发展同理心和情商
    - 非常同意
    - 同意
    - 中立
    - 不同意
    - 非常不同意
24. 死亡教育可以提高学生在专业环境中与患者、家属和同事进行关于死亡的对话的能力
    - 非常同意
    - 同意
    - 中立
    - 不同意
    - 非常不同意

第 7 节：开放式问题

请简要回答以下问题：

25. 您认为在高等教育课程中开设死亡教育，最重要的原因是什么？
26. 您觉得可以采取哪些措施，来克服在高等教育中开展死亡教育时可能遇到的文化或制度障碍？
27. 您认为应该如何设计死亡教育课程，才能使其符合中国大陆的文化特点并具有现实意义？
28. 除了现有内容，您认为死亡教育课程还应该涵盖哪些其他主题或方面？
29. 关于在高等院校中开展死亡教育，您还有哪些其他意见或建议吗？

Appendix 4:
DEATH ATTITUDE PROFILE REVISED (CHINESE ADAPTED VERSION)

中文版死亡态度描绘(DAP-R)量表(修订版)

本量表旨在评估您对死亡的态度以下陈述涉及个体对死亡的各种观点请仔细阅读每项陈述，并根据您的真实感受，在每项陈述后的五个选项中，选择最符合您同意或不同意程度的选项框内打“√”这些选项没有对错之分，其含义如下：1 = 非常不同意，2 = 不同意，3 = 略微不同意，4 = 同意，5 = 非常同意。您的回答将被严格保密，仅用于学术研究目的请您如实作答，无需犹豫感谢您的合作。

条目	5	4	3	2	1
1.死亡是一种可怕的经验	□	□	□	□	□
2.想到我自己的死亡时，我就焦虑不安	□	□	□	□	□
3.我尽量不去想死亡的事情	□	□	□	□	□
4.我相信我死后会上天堂	□	□	□	□	□
5.死亡将结束我所有的烦恼	□	□	□	□	□
6.死亡是自然的、不可否认且不可避免的	□	□	□	□	□
7.人终将会死的定局让我感到困扰	□	□	□	□	□
8.死亡是通往极乐之地的入口	□	□	□	□	□
9.死亡可让我从这个可怕的世界逃脱	□	□	□	□	□
10.每当死亡的想法进入我的脑海中，我都试着将它赶走	□	□	□	□	□
11.死亡是悲痛与苦难的解脱	□	□	□	□	□
12.我总是试着不要去想到死亡	□	□	□	□	□
13.我相信天堂是个比现世更好的地方	□	□	□	□	□
14.死亡是生命过程中自然的一部分	□	□	□	□	□
15.死亡是与上帝(神、佛…)及永恒至乐的结合	□	□	□	□	□
16.死亡肯定会带来一个崭新辉煌的生命	□	□	□	□	□
17.对于死亡我既不害怕也不欢迎	□	□	□	□	□
18.我对死亡有强烈的恐惧感	□	□	□	□	□
19.我完全避免去想到死亡	□	□	□	□	□
20.死后是否有生命，这个问题让我感到非常困扰	□	□	□	□	□

21.死亡意味着一切的结束，这个事实令我害怕	□	□	□	□	□
22.我盼望死后能和我所爱的人团聚	□	□	□	□	□
23.我视死亡为现世痛苦的解脱	□	□	□	□	□
24.死亡只是生命过程的一部分	□	□	□	□	□
25.我视死亡为一个通往永生幸福之地的通道	□	□	□	□	□
26.我尽量避开与死亡相关的事物	□	□	□	□	□
27.死亡为灵魂提供了美好的解脱	□	□	□	□	□
28.面临死亡时，令我觉得宽慰的是我相信死后仍有生命	□	□	□	□	□
29.我将死亡视为今生重担的解除	□	□	□	□	□
30.死亡既不是好事也不是什么坏事	□	□	□	□	□
31.我对死后的生命怀有期待	□	□	□	□	□
32.不知死后会发生什么事的不确定性让我担忧	□	□	□	□	□

Source：Tang L.,2013.

ENGLISH TRANSLATION OF THE CHINESE-ADAPTED DEATH ATTITUDE PROFILE

This questionnaire explores your attitudes towards death through a series of statements. Please carefully read each statement and, based on your honest feelings and beliefs, indicate the extent to which you agree or disagree. Your responses will be kept strictly confidential and used solely for research purposes. Please choose the response that best reflects your opinion for each statement, using the following scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree. Please mark your chosen response by ticking or circling the corresponding number. Thank you for your participation.

Items	**5**	**4**	**3**	**2**	**1**
1.Death is no doubt a grim experience.	□	□	□	□	□
2.The prospect of my own death arouses anxiety in me.	□	□	□	□	□
3.I avoid death thoughts at all costs.	□	□	□	□	□
4.I believe that I will be in heaven after I die.	□	□	□	□	□
5.Death will bring an end to all my troubles.	□	□	□	□	□
6.Death should be viewed as a natural, undeniable, and unavoidable event.	□	□	□	□	□
7.I am disturbed by the finality of death.	□	□	□	□	□
8.Death is an entrance to a place of ultimate satisfaction.	□	□	□	□	□
9.Death provides an escape from this terrible world.	□	□	□	□	□
10.Whenever the thought of death enters my mind, I try to push it away.	□	□	□	□	□
11.Death is deliverance from pain and suffering.	□	□	□	□	□
12.I always try not to think about death.	□	□	□	□	□
13.I believe that heaven will be a much better place than this world.	□	□	□	□	□
14.Death is a natural aspect of life.	□	□	□	□	□
15.Death is a union with God and eternal bliss.	□	□	□	□	□
16.Death brings a promise of a new and glorious life.	□	□	□	□	□
17.I would neither fear death nor welcome it.	□	□	□	□	□
18.I have an intense fear of death.	□	□	□	□	□
19.I avoid thinking about death altogether.	□	□	□	□	□

20.The subject of life after death troubles me greatly.	□	□	□	□	□
21.The fact that death will mean the end of everything as I know it frightens me.	□	□	□	□	□
22.I look forward to a reunion with my loved ones after I die.	□	□	□	□	□
23.I view death as a relief from earthly suffering.	□	□	□	□	□
24.Death is simply a part of the process of life.	□	□	□	□	□
25.I see death as a passage to an eternal and blessed place.	□	□	□	□	□
26.I try to have nothing to do with the subject of death.	□	□	□	□	□
27.Death offers a wonderful release of the soul.	□	□	□	□	□
28.One thing that gives me comfort in facing death is my belief in the afterlife.	□	□	□	□	□
29.I see death as a relief from the burden of this life.	□	□	□	□	□
30.Death is neither good nor bad.	□	□	□	□	□
31.I look forward to life after death.	□	□	□	□	□
32.The uncertainty of not knowing what happens after death worries me.	□	□	□	□	□

Appendix 5:
COPING WITH DEATH SCALE (CHINESE ADAPTED VERSION)

中文版死亡应对能力量表

本问卷旨在探索您在面对死亡时的应对能力请您仔细阅读以下每一项陈述，并根据您个人的真实感受，选择最符合您看法的选项对于每一项陈述，请使用以下七级量表来表示您的同意或不同意程度请根据您的真实想法，选择最符合您意见的选项。量表选项如下：1 = 非常不同意，2 = 不同意，3 = 略微不同意，4 = 不确定/中立，5 = 略微同意，6 = 同意，7 = 非常同意。您的回答将被严格保密，仅用于研究目的请您如实作答，无需犹豫感谢您的配合。

条目	1	2	3	4	5	6	7
1. 我对死亡及临终过程有积极的看法	□	□	□	□	□	□	□
2. 死亡是可以安全应对的	□	□	□	□	□	□	□
3. 我知道殡仪公司的一系列服务	□	□	□	□	□	□	□
4. 我知道处理尸体的很多选择	□	□	□	□	□	□	□
5. 我知道所有反应人类悲伤情绪的表现	□	□	□	□	□	□	□
6. 知道我终将死亡这一事实，不会对我的生活、行为产生任何影响	□	□	□	□	□	□	□
7. 对于死亡我有所准备	□	□	□	□	□	□	□
8. 对于临终我有所准备	□	□	□	□	□	□	□
9. 我知道我的死亡恐惧所在	□	□	□	□	□	□	□
10. 我熟悉葬礼仪式的前期准备事宜	□	□	□	□	□	□	□
11. 近来我发现思考死亡之事没有什么（可怕）	□	□	□	□	□	□	□
12. 近来我的生命态度发生了改变	□	□	□	□	□	□	□
13. 我能表达我的死亡恐惧	□	□	□	□	□	□	□
14. 我能清晰地预感死亡和临终的来临	□	□	□	□	□	□	□
15. 我在充分利用我现在的生命	□	□	□	□	□	□	□
16. 我的生命质量比生命长度更重要	□	□	□	□	□	□	□
17. 我可以和家人及朋友谈论我的死亡	□	□	□	□	□	□	□
18. 我知道（他人）死亡发生时与谁联系	□	□	□	□	□	□	□
19. 我将能够应对未来的失去（如人、物等）	□	□	□	□	□	□	□

20.我感觉能够处理和我亲近的人的死亡	□	□	□	□	□	□	□
21.我懂得如何倾听他人，包括倾听临终患者	□	□	□	□	□	□	□
22.我知道如何与孩子谈论死亡	□	□	□	□	□	□	□
23.如果需要，我会花时间与临终患者在一起	□	□	□	□	□	□	□
24.我可以在人们对死亡和临终的思想情感方面帮助他们	□	□	□	□	□	□	□
25.我可以与朋友或家人谈论关于他／她的死亡	□	□	□	□	□	□	□
26.当身边的人谈论死亡或临终的话题时，我能够减轻他们的焦虑	□	□	□	□	□	□	□
27.我能够与临终者交流	□	□	□	□	□	□	□
28.在我或他人死亡前，我能够告诉他们，我多么爱他们	□	□	□	□	□	□	□

(Source：Zheng et al., 2021)

ENGLISH TRANSLATION OF THE CHINESE-ADAPTED COPING WITH DEATH SCALE

This questionnaire is designed to explore your coping abilities related to death. Please carefully read each statement below and, based on your personal feelings, select the response that best reflects your view. For each statement, please use the following 7-point scale to indicate the extent to which you agree or disagree. Please choose the response that best reflects your opinion for each statement, using the following scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Uncertain/Neutral, 5 = Slightly Agree, 6 = Agree, 7 = Strongly Agree. Your responses will be kept strictly confidential and will be used for research purposes only. Please answer honestly and without hesitation.

Items	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1.I have a good perspective on death and dying	□	□	□	□	□	□	□
2. Death is an area that can be dealt with safely	□	□	□	□	□	□	□
3.I am aware of the full array of services from funeral homes	□	□	□	□	□	□	□
4. I am aware of the variety of options for disposing of bodies	□	□	□	□	□	□	□
5. I am aware of the full array of emotions which characterize human grief	□	□	□	□	□	□	□
6.Knowing that I will surely die does not in any way affect the conduct of my life	□	□	□	□	□	□	□
7. I feel prepared to face my death	□	□	□	□	□	□	□
8. I feel prepared to face my dying process	□	□	□	□	□	□	□
9. I understand my death-related fears	□	□	□	□	□	□	□
10.I am familiar with prearrangement of funerals	□	□	□	□	□	□	□
11. Lately I find it OK to think about death	□	□	□	□	□	□	□
12.My attitude about living has recently changed	□	□	□	□	□	□	□
13. I can express my fears about dying	□	□	□	□	□	□	□
14. I can put words to my gut-level feelings about death and dying	□	□	□	□	□	□	□
15. I am making the best of my present life	□	□	□	□	□	□	□
16.The quality of my life matters more than the length of it	□	□	□	□	□	□	□
17.I can talk about my death with family and friends	□	□	□	□	□	□	□
18. I know who to contact when death occurs	□	□	□	□	□	□	□

19. I will be able to cope with future losses	□	□	□	□	□	□	□
20. I feel able to handle the death of others close to me	□	□	□	□	□	□	□
21. I know how to listen to others, including the terminally ill	□	□	□	□	□	□	□
22.I know how to speak to children about death	□	□	□	□	□	□	□
23.I am able to spend time with the dying if I need to	□	□	□	□	□	□	□
24. I can help someone with their thoughts and feelings about death and dying	□	□	□	□	□	□	□
25.I would be able to talk to a friend or family member about their death	□	□	□	□	□	□	□
26. I can lessen the anxiety of those around me when the topic is death and dying	□	□	□	□	□	□	□
27. I can communicate with the dying	□	□	□	□	□	□	□
28. I can tell someone, before I or they die, how much I love them	□	□	□	□	□	□	□

Appendix 6:
FROMMELT ATTITUDES TOWARD CARE OF THE DYING SCALE FORM B (CHINESE ADAPTED VERSION)

中文版佛罗梅尔特临终关怀态度量表 B 表

本量表的目的在于了解医护人员在照顾患者过程中涉及患者某一状况时的感受所有的问题都涉及为临终患者和/或其家属提供的关怀和照顾量表中提到的临终患者，是指疾病终末期患者和存活期限在 6 个月以内的人。

所有条目均无对错，请针对每个问题提及的态度或情况，在您认同的看法 所对应的位置处划“√”,请回答量表中所有的 30 个问题量表选项如下：1 = 非常不同意，2 = 不同意，3 =不确定/中立，4 = 同意，5 = 非常同意。您的回答将被严格保密，仅用于研究目的请您如实作答，无需犹豫感谢您的配合。

条目	5	4	3	2	1
1. 临终关怀是一件有意义的事情	□	□	□	□	□
2. 死亡不是发生在人身上最糟糕的事	□	□	□	□	□
3. 跟临终患者谈论即将来临的死亡，会让我觉得不舒服	□	□	□	□	□
4. 在患者临终期间及死亡后都要对患者家属进行关怀	□	□	□	□	□
5. 我不想照料临终患者	□	□	□	□	□
6. 医务人员应避免与临终患者谈论死亡	□	□	□	□	□
7. 长时间照料临终患者使我感到很沮丧	□	□	□	□	□
8. 当我主管的临终患者失去治疗信心时，我会很难过	□	□	□	□	□
9. 与临终患者建立亲密关系是一件很难的事情	□	□	□	□	□
10. 有时，临终者会欣然接受死亡	□	□	□	□	□
11. 当患者问：我是不是快要死了？我认为最好把话题转移到一些开心的事情上	□	□	□	□	□
12. 家属应协助照料临终患者的日常生活	□	□	□	□	□
13. 如果我照料的患者去世，我希望我不在场	□	□	□	□	□
14. 我害怕与临终患者成为朋友	□	□	□	□	□
15. 患者去世时，我会选择不在他/她身边	□	□	□	□	□
16. 家属需要情感支持来接受临终患者的行为改变	□	□	□	□	□
17. 当患者快要去世时，应让家属多陪伴他/她	□	□	□	□	□
18. 家属应关心和帮助临终患者让其更好地度过生命剩余的时光	□	□	□	□	□

19.不允许临终患者对自己的日常生活护理做决定	□	□	□	□	□
20.家属应尽可能地让临终患者所处环境保持常态	□	□	□	□	□
21.临终患者用言语来表达自己的感受对其自身有利	□	□	□	□	□
22.医务人员应该照料临终患者的家属	□	□	□	□	□
23.医务人员应允许临终患者享有灵活的被探视时间	□	□	□	□	□
24.临终患者和家属应是决策的主导者	□	□	□	□	□
25.临终患者不需要考虑对止痛药成瘾的问题	□	□	□	□	□
26.如果我走进疾病终末期患者的房间并发现他/她在哭，我会感到不舒服	□	□	□	□	□
27.我们应该如实地告知临终患者其病情状况	□	□	□	□	□
28.医务人员没有责任对家属进行关于死亡及临终的教育	□	□	□	□	□
29.陪护临终患者的家庭成员常常干扰医护人员对患者的治疗	□	□	□	□	□
30.医务人员有可能帮助患者面对死亡	□	□	□	□	□

(Source: Wang., 2016)

ENGLISH TRANSLATION OF THE CHINESE-ADAPTED FROMMELT ATTITUDES TOWARD CARE OF THE DYING SCALE FORM B

This scale aims to understand how caregivers feel about specific situations they encounter when caring for dying patients. All statements relate to the provision of care to a dying person and/or their family. When a statement refers to a dying patient, please assume it refers to an individual who is considered to be terminally ill and is expected to live for six months or less.

Please circle the letter following each statement that best reflects your personal feelings about the attitude or situation presented. Please respond to all 30 statements on the scale. The meanings of the letters are as follows: 1 = Strongly Disagree； 2 = Disagree; 3 = Uncertain; 4 = Agree; 5 = Strongly Agree.

Items	**5**	**4**	**3**	**2**	**1**
1.Giving care to the dying person is a worthwhile experience.	□	□	□	□	□
2.Death is not the worst thing that can happen to a person.	□	□	□	□	□
3.I would be uncomfortable talking about impending death with the dying person.	□	□	□	□	□
4.Caring for the patient's family should continue throughout the period of grief and bereavement.	□	□	□	□	□
5.I would not want to care for a dying person.	□	□	□	□	□
6.The non-family care-givers should not be the one to talk about death with the dying person.	□	□	□	□	□
7.The length of time required to give care to a dying person would frustrate me.	□	□	□	□	□
8.I would be upset when the dying person I was caring for,gave up hope of getting better.	□	□	□	□	□
9.It is difficult to form a close relationship with the dying person.	□	□	□	□	□
10.There are times when death is welcomed by the dying person.	□	□	□	□	□
11.When a patient asks,"Am I dying?",I think it is best to change the subject to Something cheerful.	□	□	□	□	□
12.The family should be involved in the physical care of the dying person if they want to.	□	□	□	□	□
13.I would hope the person I'm caring for dies when I am not present.	□	□	□	□	□
14.I am afraid to become friends with a dying person.	□	□	□	□	□
15.I would feel like running away when the person actually died.	□	□	□	□	□
16.Families need emotional support to accept the behavior changes of the dying person.	□	□	□	□	□

17.As a patient nears death,the non-family care-giver should withdraw from his/her Involvement with the patient	□	□	□	□	□
18.Families should be concerned about helping their dying member make the best of his/her remaining life.	□	□	□	□	□
19.The dying person should not be allowed to make decisions about his/her physical care.	□	□	□	□	□
20.Families should maintain as normal an environment as possible for their dying member.	□	□	□	□	□
21.It is beneficial for the dying person to verbalize his/her feelings.	□	□	□	□	□
22.Care should extend to the family of the dying person.	□	□	□	□	□
23.Care-givers should permit dying persons to have flexible visiting schedules.	□	□	□	□	□
24.The dying person and his/her family should be the in-charge decision makers.	□	□	□	□	□
25.Addiction to pain relieving medication should not be a concern when dealing with a dying person.	□	□	□	□	□
26.I would be uncomfortable if I entered the room of a terminally ill person and found him/her crying.	□	□	□	□	□
27.Dying persons should be given honest answers about their condition.	□	□	□	□	□
28.Educating families about death and dying is not a non-family care-givers responsibility.	□	□	□	□	□
29.Family members who stay close to a dying person often interfere with the professionals' job with the patient.	□	□	□	□	□
30.It is possible for non-family care-givers to help patients prepare for death.	□	□	□	□	□

Appendix 7:
INTERVIEW GUIDE FOR DEATH EDUCATION CURRICULUM EXPERIENCES AND FEEDBACK

Thank you for participating in this interview. This interview aims to understand your satisfaction with the death education course and gather your feedback. Please share your views on the following questions based on your genuine experiences. Your answers will be kept confidential and used for course improvement only. Please answer honestly, thank you for your cooperation!

Interview Questions:

Section 1: Curriculum Content

- Do you think the content arrangement of this curriculum is reasonable?
- Do you think the curriculum content is clear and easy to understand?
- Do you think the curriculum content covers the important aspects of death education?
- Do you think the content of this curriculum is relevant to your professional knowledge or practical skills?

Section 2: Teaching Methods

- Are you satisfied with the teaching methods of this curriculum?
- How do you think the teacher performs in the classroom?
- Do you think the interactive elements of the curriculum are sufficient?

Section 3: Emotional Experience

- What are the most frequent emotions you experienced while learning this curriculum?
- Did you encounter any emotional challenges during the curriculum?
- Do you think this curriculum has changed your view on death?
- Do you think you are now more able to understand, accept, and deal with death-related topics?

Section 4: Personal Growth and Gains

- What do you think is your biggest gain from taking this curriculum?
- Do you think this curriculum has promoted your personal growth?
- Do you think you are now more able to understand, accept, and deal with the loss and grief of others?

Section 5: Suggestions for Curriculum Improvement

- What suggestions or improvements do you have for this curriculum?

- What curriculum content or activities would you like to add?
- Which aspects or parts do you think could better meet the learning needs of students?
- Would you recommend this curriculum to other students? Why?

Section 6: Other

- During the curriculum, do you have any other feelings or thoughts you would like to share?
- What are your expectations for future death education curricula?

INTERVIEW GUIDE FOR DEATH EDUCATION CURRICULUM EXPERIENCES AND FEEDBACK IN CHINESE

死亡教育课程体验与反馈访谈提纲

您好！感谢参与本次访谈本次访谈旨在了解您对本学期死亡教育课程的满意度，并收集您的反馈请根据您的真实体验，分享您对以下问题的看法您的回答将严格保密，仅用于课程改进请如实作答，感谢您的配合！

访谈问题：

第一部分：课程内容方面

- 您认为这门课程的内容安排是否合理？
- 您认为课程内容是否清晰、易于理解？
- 您认为课程内容是否涵盖了死亡教育的重要方面？
- 您认为本课程内容是否与您的专业知识或实践技能相关？

第二部分：教学方法方面

- 您对这门课程的教学方法是否满意？
- 您认为教师在课堂上的表现如何？
- 您认为课程的互动环节是否足够？

第三部分：情感体验方面

- 在学习本课程的过程中，您最常体验到的情绪是什么？
- 您是否在课程中遇到过任何情感上的挑战？
- 您认为这门课程是否改变了您对死亡的看法？
- 您认为自己现在是否更能够理解、接受并应对死亡相关的话题？

第四部分：个人成长与收获

- 您认为通过学习这门课程，您最大的收获是什么？
- 您认为这门课程是否促进了您的个人成长？
- 您认为自己是否更能够理解、接受并应对他人的丧失和悲伤？

第五部分：课程改进建议

- 您对本门课程有什么建议或改进意见？
- 您希望增加哪些课程内容或活动？
- 您认为哪些环节或方面可以更好地满足学生的学习需求？
- 您是否会将这门课程推荐给其他同学？为什么？

第六部分：其他

- 您在学习本课程的过程中，有没有什么其他感受或想法想分享？
- 对未来的死亡教育课程有什么期待？