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LEVEL OF BURNOUT AMONG UNIMAS UNDERGRADUATE NURSING STUDENTS

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DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Malaysia Sarawak. Except where due acknowledgements have been made, the work is that of the author alone. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

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ABSTRACT

Nursing students are susceptible to burnout, a syndrome brought on by extended stress, because of the demands placed on them by their studies, clinical rotations, and emotional needs. The purpose of this study was to assess the level of burnout among UNIMAS undergraduate nursing students and examines how its relationship/association to sociodemographic variables such age, gender, race, academic year, household, and clinical experience. Using basic random sampling, a descriptive cross-sectional study was carried out among 163 nursing students. A self-administered questionnaire based on the Burnout Assessment Tool (BAT) was used to gather data, and SPSS Version 27 was used for analysis. Study found that majority (50.3%) of the students reported high burnout while 25.2% reporting extremely high burnout. Further analysis using Chi-square and Spearman's correlation tests. No significant correlation between burnout and any sociodemographic factor (age, gender, year of study, race, living household and weeks of clinical experience). The findings of this study provided further information about the level of burnout among nursing students, regardless of their sociodemographic background. Thus, emphasizing the necessity of universal interventions like stress management classes, education on emotional resilience, and easily available mental health care by the educators or related institution should be considered to ensure good mental health among the students.

ABSTRAK

Pelajar kejururawatan sangat terdedah kepada burnout, iaitu satu sindrom yang berpunca daripada tekanan berpanjangan, disebabkan oleh tuntutan akademik, penempatan klinikal, dan keperluan emosi mereka. Tujuan kajian ini adalah untuk menilai tahap burnout dalam kalangan pelajar kejururawatan prasiswazah di UNIMAS serta meneliti hubungannya dengan pemboleh ubah sosiodemografi seperti umur, jantina, kaum, tahun pengajian, isi rumah, dan pengalaman klinikal. Kajian keratan rentas deskriptif ini dijalankan ke atas 163 pelajar kejururawatan menggunakan pensampelan rawak mudah. Data dikumpul melalui soal selidik kendiri berasaskan Burnout Assessment Tool (BAT) dan dianalisis menggunakan perisian SPSS Versi 27 dengan ujian korelasi Spearman dan ujian Chi-square. Dapatan kajian menunjukkan tiada hubungan signifikan antara burnout dan faktor sosiodemografi, namun 50.3% pelajar melaporkan burnout pada tahap tinggi dan 25.2% pada tahap sangat tinggi. Keputusan ini menunjukkan bahawa burnout memberi kesan kepada semua pelajar kejururawatan UNIMAS tanpa mengira latar belakang, dan menekankan keperluan intervensi universal seperti kelas pengurusan stres, pendidikan tentang daya tahan emosi, serta akses mudah kepada sokongan kesihatan mental semasa pengajian kejururawatan.

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LIST OF ABBREVIATIONS

MBI	Maslach Burnout Inventory
MBI-SS	Maslach Burnout Inventory Student Survey
MBI-HSS	Maslach Burnout Inventory Human Service Survey
UNIMAS	Universiti Malaysia Sarawak
ICD-11	11th Revision of the International Classification of Diseases
SPSS	Statistical Package for the Social Sciences
BAT	Burnout Assessment Tool

CHAPTER 1: INTRODUCTION

1.1 Introduction

The study background, problem statements, research questions, research objectives, significance of the study, definitions of the variables utilized in the study, and chapter summary will all be covered in this chapter.

1.2 Study background

Burnout is a problem that is believed to be caused by persistent stress at work that is not well managed (World Health Organization, 2019). It can be characterized in three ways which are a decrease in professional efficacy, sentiments of pessimism or negativity about one's work, and fatigue or low energy. Burnout not only affecting nurses but also nursing students. Ge et al. (2023) make an analysis of research on nursing burnout in 30 different countries. The objective of the research is to find the occurrence of nursing burnout syndrome worldwide and the time patterns over the previous ten years. As a result, from the analysis, 30% of nurses worldwide reported having burnout, and for the previous ten years, this percentage has been steadily rising. Meanwhile a study in Malaysia by Zakaria et al. (2022) shows that burnout affected 24.4% of nurses, or one in four. Nurses who were younger, childless, and single were more likely to experience burnout. Work shifts, particularly night shifts, are strongly associated with burnout.

The consequences of burnout among nurses are extensive and detrimental and sometimes it can also become a problem. Burnout may lead to negative effect on patient outcomes because nurses who are emotionally and physically occupied tend to have poor attention to details and unable to make sound decisions, which could result in medical errors,

lower-quality patient care, and ultimately jeopardize the effectiveness of healthcare services (Tawfik et al., 2019). Furthermore, when they are unable to deliver the level of care they hope to, nurses frequently become discouraged, experiencing frustration and discontent. A perceived lack of gratitude or support from management could worsen this emotional toll and lower job satisfaction (Marzo et al., 2022). Other than that, nurses that experienced burnout usually suffer from higher absenteeism resulting in fewer employees and affecting the effectiveness of the healthcare system as a whole (Dyrbye et al., 2019). Study by Labrague et al. (2020) shows that nurses who reported greater levels of burnout at work have higher possibility to say they intended to leave than nurses who reported lower levels of burnout.

In another study by Hwang and Kim (2022), academic burnout among nursing students was linked to stress, anxiety, and depression. Anxiety and hopelessness contributed to academic burnout in students with no prior clinical practice experience. However, for those with clinical practice experience, stress and a significant sense of enjoyment may influenced academic burnout. The study's findings emphasize the importance of developing and implementing intervention programs to mitigate academic burnout in nursing students. To enhance nursing students' satisfaction with their major and their sense of purpose in both academic and practical settings, the clinical practice environment and curriculum should be reassessed and modified. Universities should support students by fostering collaboration with clinical site institutions to reduce stress, anxiety, and depression, while improving nursing students' satisfaction with their field of study. Coping strategies or mechanism are really needed to prevent consequences of burnout from occurring. Because of their academic, clinical, and personal struggles, nursing students experience significant levels of stress and burnout, thus having healthy coping strategies is crucial to their wellbeing. Based on Latif

and Nor (2019), among all the coping mechanisms that students use, religion ranks the highest. Religious method that the students utilize are praying and meditation. Following closely behind are plans, constructive rephrasing, active coping, acceptance, emotional support, humor, denial, self-distraction, venting, self-blame, positive reframing, behavioral disengagement, and substance abuse.

1.3 Problem Statements

Burnout is a relatable situation and a common thing that are experienced by nursing students. Study by Kong et al. (2022) investigated how common burnout is among nursing students worldwide. According to the pooled estimation, burnout affected 23% of nursing students ranged worldwide. Higher prevalence of burn out in Asia with 39.7%, Europe 23% and in South America 14.3%. Some of the factors that can cause burnout among nursing students are prolonged academic activity and academic satisfaction. Other than that, the study also noted that the high prevalence of burnout among nursing students could be attributed to the challenging nature of the healthcare-focused curriculum, which encompasses coursework, clinical reports, exams, clinical practice, and interpersonal relationships.

Students that are experiencing higher level of burnout may be associated with worse psychological and academic outcomes (Dorn, 2021). The learning process and academic performance of nursing students are negatively impacted by academic burnout, which may ultimately result in lower-quality patient care in their future employment. Other than that, stress, guilt, and emotional tiredness brought on by the pressure to do well on assignments and be an excellent student are also some of the factors. These emotions may have an impact

on academic performance and learning capacity (Wang et al., 2019). Excessive stress along with poor capacity for stress management were experienced by nursing students in their final clinical rotation, which can lead to burnout and the desire to discontinue nursing school. Concern should be raised about nursing students who intended to discontinue their studies during their final clinical rotation. The student already spends several years, a lot of money, and a lot of time studying nursing before dropping out (Ma et al., 2022).

In Malaysia, there are very few article or journal mentioned about burnout among nursing students. Most of the articles are only focusing on stress among nursing students instead of level of burnout. Stress and burnout are different. Stress is a temporary reaction to pressures that may be handled with effective coping mechanisms. However, burnout is a chronic condition brought on by continuous, mismanaged stress that manifests as diminished personal accomplishment, emotional tiredness, and depersonalization (World Health Organization, 2019). Nursing students' academic and clinical performance can be negatively impacted by mismanaged stress, which can lead to burnout. Therefore, it is critical to distinguish between these two. Nursing students really need to know and understand about burnout syndromes to make sure there are not affecting their clinical performance as well as their academic achievement. Therefore, this study aimed to examine burnout among Universiti Malaysia Sarawak (UNIMAS) undergraduate nursing students.

1.4 Research Questions

1. What is the level of burnout among UNIMAS undergraduate nursing students?
2. What are the differences between level of burnout in relation to the general characteristics among UNIMAS undergraduate nursing students?

1.5 Aim of the study

The purpose of this study is to examine the relationship/association between level of burnout and general characteristics among UNIMAS undergraduate nursing students.

1.6 Specific Research Objectives

1. To assess the level of burnout among UNIMAS undergraduate nursing students.
2. To examine the relationship/association between level of burnout with the respondents' general characteristics among UNIMAS undergraduate nursing students.

1.7 Hypotheses

1. Null Hypothesis (H_0): There is no significant relationship/association between the level of burnout with the respondents' general characteristics among UNIMAS undergraduate nursing students.
2. Alternative Hypothesis (H_A): There is significant relationship/association between the level of burnout with the respondents' general characteristics among UNIMAS undergraduate nursing students.

1.8 Significance of the study

This study holds importance as it evaluates burnout levels among undergraduate nursing students while also providing personalized feedback based on their individual scores. By classifying scores into categories of low, moderate, or high risk, the research helps participants gain clearer insight into their mental and emotional state. Students identified at higher risk of burnout will be offered general guidance, including stress management

techniques, time management advice, and referrals to mental health support services. This tailored approach highlights the value of early intervention, empowering students with practical strategies to manage their stress effectively. Through increased awareness and preventive action, the study aims to enhance students' mental well-being, academic performance, and ability to cope with the challenges of their future nursing roles.

Nursing education programs can benefit greatly from the study's findings. The information can be used by administrators and educators to create interventions that target the unique stressors that nursing students encounter. For example, integrating wellness programs into the curriculum, providing mentorship opportunities, counselling, and implementing stress management training can all help reduce burnout and create a positive learning environment. During their training, these programs can enhance students' general quality of life in addition to their academic achievement.

This study is significant for the larger healthcare sector as well. The sustainability and efficacy of healthcare systems are closely linked to the well-being of nursing students, who will make up the workforce of the future. This research helps to prepare resilient and capable nursing workers who are better able to handle the mental, emotional, and physical demands of the healthcare setting by tackling burnout early in their academic path. By doing this, it advances the long-term objective of encouraging a more stable and healthy healthcare staff.

Lastly, this study adds to the expanding corpus of research on burnout, especially as it relates to nursing education. It offers useful, current information that might direct further research and treatments meant to lessen burnout and lessen its long-term impacts. In addition to helping nursing students, the study has wider ramifications for enhancing workforce

readiness, educational procedures, and the general standard of healthcare delivery by bringing attention to this important problem.

1.9 Definitions of terms

1. Burnout

- **Conceptual definition**

According to Cambridge Dictionary (2024), burnout is referring to excessive exhaustion either physically or mentally due to overscheduling or working too hard. Burnout is included in 11th Revision of the International Classification of Diseases (ICD-11) because it does not fall under any medical category (World Health Organiation, 2019). Burnout recognizes as a problem that occurs in the workplace.

- **Operational definition**

Burnout in this study is referring to a state of either mental, physical, and emotional exhaustion that UNIMAS undergraduate nursing students experienced. This study will measure the level of burnout using General Burnout Assessment Tool (BAT) questionnaire adapted from (Schaufeli et al., 2020). There will be a total of 12 items and will be measured using Likert scale. The five options of the Likert scale are "never," "rarely," "sometimes," "often," and "always". By adding up all the scores on a certain scale and dividing the sum by the total number of items on the scale, average scores on the BAT scales are determined. The average scores will vary between 1 to 5. If the average score is between 1.00 to 1.50, it is considered low. 1.51 to 2.35 is considered average, meanwhile 2.36 to 3.17 is considered high. Lastly, 3.18 to 5.00 is very high.

2. Undergraduate Nursing students

- **Conceptual definition**

  Based on Collins Dictionary, a nursing student is defined as someone who studies and trains to be a nurse (Collins English dictionary, 2020).

- **Operational definition**

  Enrolled students in Bachelor of Nursing with Honors in UNIMAS from year 1 to year 4.

3. General Characteristics

- **Operational definition**

  In this study, general characteristics are referring to student's gender, age, race, clinical experience, household, and year of study.

1.10 Summary

In summary, study background was covered in this chapter, along with general information about the occurrence of burnout among nurses. This chapter also covered problem statements, which highlight the concerns brought up on the prevalence of burnout and the necessity to recognize and address them among nursing students. In addition, research objectives and questions were established, which helps in the preparation of this investigation. In this chapter, the importance of the study was also covered to examine its potential future benefits. In conclusion, this chapter explains the conceptual and operational definitions of terms used in the study. The definitions were sourced from an online dictionary.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter will go into greater detail on the literature review to highlight the study's primary finding. Level of burnout will be explained in Section 2.1. The differences of burnout according to general characteristics is discussed in Section 2.2. The sources used for this literature review were sourced from a number of online resources. Using search engines like ResearchGate, Google Scholar, and PubMed. To obtain the most recent and up-to-date literature, the reviewed publications were filtered by the year of publication, which was between 2019 and 2024. The keywords used to locate pertinent information are “level”, “burnout”, “nursing students”, “general characteristics” and “sociodemographic”. Finally, section 2.3 will represent the summary for this chapter.

2.2 Level of Burnout

It is important to comprehend the level of burnout given the negative effects burnout has on people, organizations, and general well-being. The initial step toward restoring balance and well-being for individuals and groups involves assessing their level of burnout. This can be done by using tools like the Maslach Burnout Inventory or through self-reflection. Several studies have been conducted to look at the public, medical professionals, and undergraduate students’ level of burnout.

De Vasconcelos et al. (2020) conducted a quantitative and cross – sectional study at public university in Sao Paolo, Brazil. Aim of this research is to identify prevalence of burnout syndrome among nursing students. Maslach Burnout Inventory Student Survey (MBI-SS) had been utilized to evaluate the extent of burnout experienced by nursing students

and this tool was divided into 3 subscales which is emotional exhaustion, disbelief, and professional effectiveness. There was a total of 100 students participated in this study. According to instrument that the author use, 75% of individuals encountered a significant level of emotional exhaustion, 29% went through high level of disbelief, 33% dealt with low level of professional effectiveness and the prevalence of burnout was high which is 20% out of the total participant presented with burnout syndrome.

In contrast with a study by Lopes and Nihei (2020) which conducted in Brazil, 6.0% nursing student presented with high burnout. This study utilized Maslach Burnout Inventory (MBI) with 3 dimensions which is emotional exhaustion, depersonalization, and personal accomplishment. 36.3% of the nursing students presented with high emotional exhaustion, 37.7% presented high depersonalization and 28.2% presented with low level of personal accomplishment. The results are quite different with the previous study due to the amount of participant. In the prior study by De Vasconcelos et al. (2020), 100 nursing students were involved meanwhile for this research, there are a total of 284 students participated. Although both studies were conducted in Brazil, but this study was conducted in 5 public universities. Among the nursing students participated in this study, high burnout was found to be low. However, the high levels of depersonalization and emotional exhaustion may make burnout more likely to occur.

Another cross – sectional study was conducted in China to evaluate the extent of burnout in nursing students by Ma et al. (2022). This study utilized Maslach Burnout Inventory Human Service Survey (MBI-HSS) with 3 subscales which is emotional exhaustion, depersonalization, and personal accomplishment. Based on the findings, 91.4%of the participant have low levels of personal achievement, 48.2% have high levels of depersonalization, and 36.1% have high levels of emotional. These percentages are

significantly more than those found in a prior study by Brazilian nursing students (Lopes and Nihei, 2020).

A cross – sectional study was carried out in Aga Khan University in Pakistan by Mufarrih et al. (2024). This study also utilizes Maslach Burnout Inventory (MBI) to assess the prevalence of burnout profile. There was a total of 441 nursing students participated in the study. Based on the finding, 26.8% of nursing students underwent high emotional exhaustion, 8.2% went through high level of depersonalization and 43.3% participators encountered low level of personal efficacy.

All 4 studies have different findings since Mufarrih et al. (2024) states that The Maslach Burnout Inventory (MBI) is misused in many studies, which oversimplifies the concept of burnout. Critical subtleties in burnout aspects may be missed if MBI data are used as continuous variables. Furthermore, Schaufeli et al. (2020) mentioned that the components of burnout that were now in use were out of date and did not account for newer symptoms such as cognitive deficits linked to burnout development.

Another study by Tran & Nguyen (2024) was carried out in Hanoi, Vietnam to evaluates student's awareness and prevalence of depression, anxiety, stress, and academic burnout. Instead of using Maslach Burnout Inventory, the researcher utilizes Burnout Assessment Tools (BAT). A substantial number of students, 46.7% or 135 people, showed no signs of burnout risk. However, 71 students, or 24.6% of the student body, were classified as having a "Risk of burnout," which denotes a moderate level of vulnerability to burnout. Interestingly, 28.7% of students or 83 people were classified as being at a "High risk of burnout," indicating a sizeable portion dealing with increased burnout difficulties. The result in this study was different with the other studies because this study did not use the same type

of questionnaire as the other studies. Other than that, this study also was not focusing only among nursing students. Therefore, the results are different.

2.3 Differences of Burnout According to General Characteristics

Galdino et al. (2020) conducted a quantitative study among 114 nursing students in Brazil. The study is conducted to investigate the presence of burnout syndrome within nursing students. The author utilizes Maslach Burnout Inventory Student Survey (MBI-SS) which was divided into 3 subscales which is emotional exhaustion, depersonalization, and academic effectiveness. Some of the general characteristics that were being assess in this study were sociodemographic factors including lifestyle, academic performance, age, gender, marital status as well as number of children. Based on the findings, it was discovered that 21.1% of individuals had low academic effectiveness, 31.6% had significant depersonalization, and 76.3% had severe emotional exhaustion. It was demonstrated that nursing students in the highest grades, age ranging between 17 to 40 years old and nursing students without a stable relationship are the one experiencing high level of emotional exhaustion. For depersonalization, scores increased with age, the length of the school year and the number of advanced courses. In terms of academic efficacy, students' scores in this category decrease as the school year progresses, their weight of tasks increases, and they spend fewer hours studying outside of class each day.

In the study conducted by Friganović et al. (2023) in Croatia, the youngest group, which included students between the ages of 18 and 25, was shown to have the highest degree of emotional exhaustion. Younger students may be more susceptible to emotional exhaustion because of things such as poor coping mechanisms, inexperience with stress management,

and the difficulties of making the transition from secondary school to the rigorous setting of a nursing program.

Study by Friganović et al. (2023) showed that female nursing student experienced higher level of emotional exhaustion compared to male nursing students. A similar finding was obtained by Valero Chilleron et al. (2019). Numerous factors, including coping strategies, cultural expectations, and gender-specific stresses, may contribute to the higher emotional exhaustion experienced by female students. However, the findings from these two studies are in contrast with the finding from a study carried out by Sumarni et al. (2022) at Faculty of Nursing in Padjajaran University. The result shows that there were no significant differences in academic burnout between male and female students. The differences of result in these 3 studies could be due to amount of the male and female students participated were different.

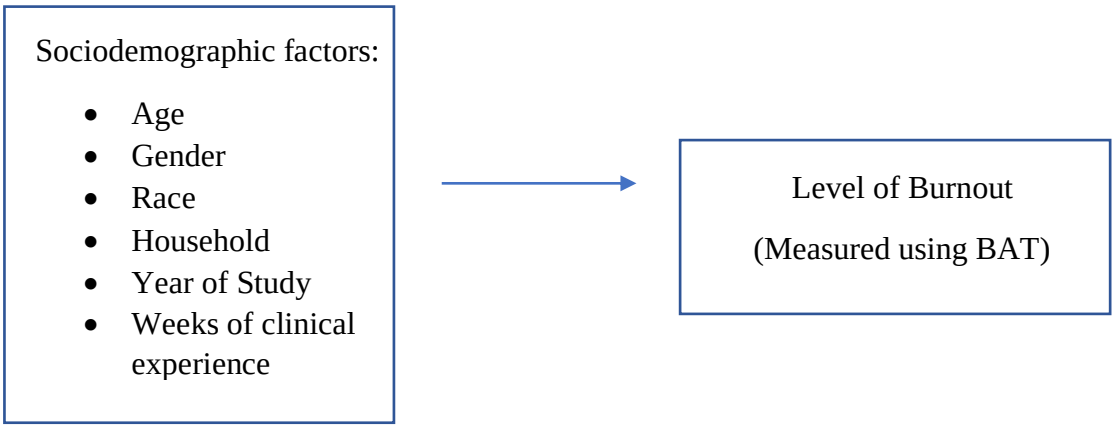
In another study conducted by Hwang and Kim (2022) in South Korea, there are a few additional variables that was not included in the prior studies above which is clinical practice experience. For clinical practice experience, students without any clinical experience have higher level of burnout than those who have clinical experience. This occurs due to unfamiliar environments and changes in daily life.

In conclusion, while research on burnout among healthcare professionals is available, little of it focusses on the level of burnout and how it relates to general characteristics among Malaysian nursing students (Shariff & Azlan, 2021). These variations in results from different nursing schools in different countries might be influenced by many factors. Some people might think burnout among students is not a big concern.

2.4 Conceptual Framework

Numerous sociodemographic factors impact burnout by influencing how people perceive and react to stress. Burnout risk is greatly impacted by age, marital status, education level, gender, and job role, according to research (Maslach & Leiter, 2016). This study investigates the relationship/association between general characteristics and level of burnout among UNIMAS undergraduate nursing students. The Burnout Assessment Tool (BAT) is used to quantify burnout. Students' feelings of burnout may be influenced by the general factors that were investigated, including age, gender, race, household, year of study, and weeks of clinical practice. Recognizing these correlations help in identifying at-risk populations and offers proof for creating assistance plans that enhance students' academic achievement and general well-being. Figure 1 shows the conceptual framework adapted from a study by (Amede et al., 2023).

Figure 1 Conceptual framework adapted from a study by (Amede et al., 2023)



2.5 Summary

In conclusion, level of burnout and differences of burnout according to general characteristics among nursing students are uncertain. Although many studies have been conducted in other countries, there are only few studies regarding this issue that have been conducted in Malaysia especially Sarawak. Therefore, there is a need to conduct a study in Faculty Medicine and Health Sciences, UNIMAS to know the current level of burnout among UNIMAS undergraduate nursing students.

CHAPTER 3: METHODOLOGY

3.1 Introduction

The approach taken to carry out this investigation will be the main topic of this chapter. Research design, research setting, inclusion and exclusion criteria, sampling method and sample size, study tool, ethical considerations, data collection strategy, data analysis strategy, and chapter summary are all included in this chapter.

3.2 Research Design

This study employed quantitative methods, which involve techniques from the natural sciences to generate factual and numerical data. By utilizing statistical, computational, and mathematical methods, quantitative research aims to establish cause-and-effect relationships between variables (Ahmad et al., 2019). Furthermore, it also allows for the creation of raw data graphs and tables, aiding researchers in analyzing the findings. Additionally, this study was using a cross-sectional study design at the UNIMAS. Cross-sectional studies were chosen because this method allow to analyze data from a population at a particular moment in time and are frequently used to assess the prevalence of health outcomes, explore health determinants, and outline demographic characteristics. Furthermore, this design was inexpensive and easy to conduct (Wang & Cheng, 2020). Therefore, a cross-sectional study was the most effective method for looking at burnout among undergraduate nursing students in UNIMAS.

3.3 Research Setting

This study was carried out at the Faculty of Medicine and Health Sciences at UNIMAS.

3.4 Research Population

This study's target group was the population of undergraduate nursing students enrolled in Year 1 to Year 4 at UNIMAS, Kota Samarahan, Sarawak. Post-registration students were excluded because they may have stronger coping mechanisms for managing stress since they have experience working in clinical settings which can lead to reduced levels of burnout. This can cause bias in the result later.

The total population of nursing students which consists of 235 students are further divided into the following groups:

- Total year 1 undergraduate nursing students: 52
- Total year 2 undergraduate nursing students: 63
- Total year 3 undergraduate nursing students: 57
- Total year 4 undergraduate nursing students: 63

3.5 Inclusion and Exclusion Criteria

a) Inclusion Criteria

Undergraduate nursing students from UNIMAS from Year 1 until Year 4 who are open to take part within the research after comprehending and approving the informed consent statement are the study's inclusion criteria.

b) Exclusion Criteria

Those undergraduate nursing students from UNIMAS who had involved in the pilot study, and post registration students will be excluded in this study.

3.6 Sampling Method and Sample Size

This study utilized simple random sampling as the sampling method to choose the participants. Since the selection procedure was solely dependent on chance, this selection approach guarantees an equal, representative, and unbiased probability of the population and gives every participant an equal chance to take part in the study (Noor et al., 2022). Therefore, simple random sampling method was employed to select the participants for this study. All the nursing students' names and their matric number was entered into Excel. Random selection process was initiated by typing the formula=RAND() in the Excel. Number of participants that was selected, were calculated using Taro Yamane formula (Yamane, 1973). Calculation shows that the sample size was 148 participants and after taking into account the 10% attrition rate, total participants was 163. A 10% increase was a precaution to assist guarantee the study's accuracy and reliability by ensuring that the sample size is sufficient to manage possible problems like errors, data loss, or non-responses (Creswell & Creswell, 2018).

Taro Yamane's formula:

$$n = \frac{N}{1 + Ne^2}$$

n = sample size

N = total population

e = margin error

The calculation for sample size shown below:

$n = 235 / (1 + (235) (0.05)^2)$

$n = 148$

Adding 10% of attrition rate

148 + 10% x number of sample size

= 148 + (0.1) (148)

= 148 + 14.8

= 162.8

= 163

3.7 Study Instrument

This study instrument consists of 2 parts *(see appendix B)* which consists of section A and section B. In section A, the participants were required to fill in their gender, age, race, clinical experience, household, and year of study. The questions in this section were a multiple-choice question.

Whereas in section B, the level of burnout was measured using General Burnout Assessment Tool (BAT) questionnaire adapted from (Schaufeli et al., 2020). There was a total of 12 items and was measured using Likert scale. The five options of the Likert scale are "never," "rarely," "sometimes," "often," and "always". By adding up all the scores on a certain scale and dividing the sum by the total number of items on the scale, average scores on the BAT scales were determined. The average scores vary between 1 to 5. If the average score is between 1.00 to 1.50, it is considered low. 1.51 to 2.35 is considered average, meanwhile 2.36 to 3.17 is considered high. Lastly, 3.18 to 5.00 is very high. Cronbach's alpha scores for the BAT's subscales range from 0.84 to 0.91, indicating great internal

consistency and high reliability (Schaufeli et al., 2020). Significant correlations with related psychological categories including stress, anxiety, and depression support its construct validity, and measurement invariance attests to its generalizability across many demographic groups. Because of these characteristics, the BAT is a reliable instrument for evaluating burnout in educational environments.

3.8 Ethical Consideration

The Research Ethics Committee of the Faculty of Medicine and Health Sciences, UNIMAS, ethical approval was obtained prior to the study's implementation *(refer Appendix A)*. Along with the questionnaire, participants were provided with an informed consent form, which they must sign prior to participating in the study. Participants may also revoke from the study at any point without incurring fees or consequence *(refer Appendix B).* The participants' anonymity and confidentiality were preserved for the duration of the study. By not asking participants for any personally identifying information, such as their name, and by linking responses with codes that conceal identities, anonymity and confidentiality was maintained. All the responses were saved in file locked with passwords and these responses will only be saved for 5 years. Permission to use and modify the survey instrument for this study was sent to the author through email *(refer Appendix C).*

3.9 Data Collection

a) Pilot Study

Pilot study began as soon as the Ethics Committee of Research Committee, Faculty of Medicine and Health Sciences, UNIMAS gives their approval. There were 13 participants

from the total population chosen randomly for this pilot study. The purpose of the pilot study was to determine any possible problems with the questionnaire's clarity, the way it is administered, and the amount of time needed to complete it. Following that, the participants of this pilot study will not be included in the final sample size. SPSS version 27.0 was utilized to enter and analyze data from the pilot study in order to verify the instrument's validity and reliability. After that, the pilot study's data was not included in the main investigation. The questionnaire's reliability and internal consistency was assessed using Cronbach alpha. The dependability coefficient must fall within the range of 0.7 and above. A reliability coefficient is deemed "acceptable" if it is.70 or greater (Brian.J, 2021). The pilot study's Cronbach alpha for this investigation was 0.936 which fall under excellent.

Table 3.9

Cronbach Alpha range of reliability

No	Coefficient of Cronbach's Alpha	Reliability Level
1.	More than 0.90	Excellent
2.	0.8-0.89	Good
3.	0.7-0.79	Acceptable
4.	0.6-0.69	Questionable
5.	0.5-0.59	Poor
6.	Less than 0.59	Unacceptable

b) Actual Study

Data collection began as soon as the Ethics Committee of Research Committee, Faculty of Medicine and Health Sciences, UNIMAS gave their approval. The real study's

data collection began at 7th of March 2024. Using the help of class representative, randomly chosen participants received the printed self-administered questionnaire. The design, description, and purpose of the study was included in the consent form to gain their assistance in answering the questionnaire. Before participating in the study, the participants were asked to sign the box in the consent form to give their consent. Once they have given their agreement to participate, they were informed that the data and information collected during the study will remain anonymous and confidential. Additionally, participants may revoke from the study at any point without incurring fees or consequence. It took ten to fifteen minutes to finish all the questions. The researcher monitored the quantity of responses received throughout data collection to ensure no missing respondent for this investigation.

3.10 Data Analysis

To investigate the relationship/association between burnout levels and different sociodemographic factors among UNIMAS undergraduate nursing students, the data analysis for this study included both non-parametric correlation and categorical association tests. Because age and weeks of clinical experience violated the normality criteria, Spearman's correlation coefficient test was utilized to evaluate the direction and degree of relationships between these continuous variables and level of burnout. Spearman's correlation offers a reliable indicator of monotonic correlations and is suitable for both ordinally and non-normally distributed data.

To ascertain whether there were statistically significant correlations between level of burnout and sociodemographic characteristics such gender, race, year of study, and household, chi-square tests of independence were performed. The Chi-square test used to determine if distributions deviate from anticipated frequencies under the null hypothesis of

independence and to investigate correlations between two categorical variables. Version 27.0 of the Statistical Package for the Social Sciences (SPSS) was used for all analyses, and $p < 0.05$ was chosen as the significance level.

3.11 Summary

In conclusion, a cross-sectional quantitative study design was used in this investigation. The sample strategy used in this investigation was simple random sampling. After using Taro Yamane formula to count the sample size, 163 of UNIMAS undergraduate nursing student was involved in the actual study and 13 students for pilot study. All chosen participants in this study received a self-administered questionnaire to gather data. Ethical consent was obtained before any data is collected. The SPSS application software was used to examine the data, and both descriptive and inferential statistics were used.

CHAPTER 4: RESULTS

4.1 Introduction

This chapter presents the data analysis results based on the study's research objective, which includes Section 4.2 participant sociodemographic and Section 4.3 burnout level among UNIMAS undergraduate nursing students. The chapter summary will be presented in Section 4.4.

4.2 Sociodemographic characteristics of UNIMAS undergraduate nursing students (n = 163)

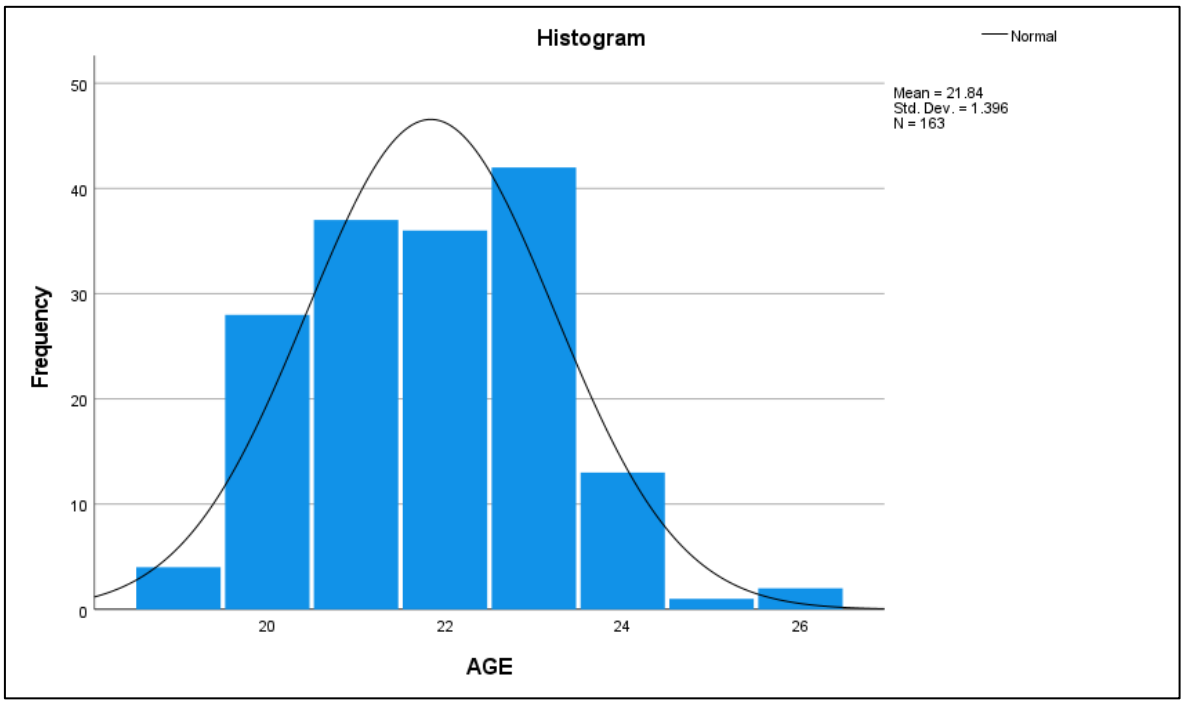
A total of 163 UNIMAS undergraduate nursing students participated in this study. A Kolmogorov-Smirnov test shows that age is not normal distributed with $D(163) = .153$, $p < .001$. After screening the data, no extreme values or outliers were found. The participants in this study aged between 19 to 26 with mean age of 21.84 $\pm$ *SD* 1.396. Out of all the participants, majority of them were female, 81.6% and 3rd year students (27.0%). Most participants of this study were Malay, at 39.9%. More than half (62%) of the participants live with their family. For week of clinical experience, most of the participants had 0 to 20 weeks of clinical experience (47.2% $n = 77$).

Table 4.1

Sociodemographic characteristics of UNIMAS undergraduate nursing students (n = 163)

Characteristics	Frequency (*n*)	Percentage (%)	Mean	SD
Age			21.84	1.396
Gender				
Male	30	18.4		
Female	133	81.6		
Year of study				
First year	36	22.1		
Second year	41	25.1		
Third year	44	27.0		
Fourth year	42	25.8		
Race				
Malay	65	39.9		
Bumiputera Sarawak	58	35.6		
Others	40	24.5		
Household				
Lives alone	9	5.5		
Live with family	101	62.0		
Live with friends	53	32.5		
Clinicial experience (weeks)				
0 to 20 weeks	77	47.3		
21 to 40 weeks	47	28.8		
41 to 60 weeks	39	23.9		

Figure 4.1: Histogram shows the frequency of age



4.3 Level of Burnout among UNIMAS undergraduate nursing students

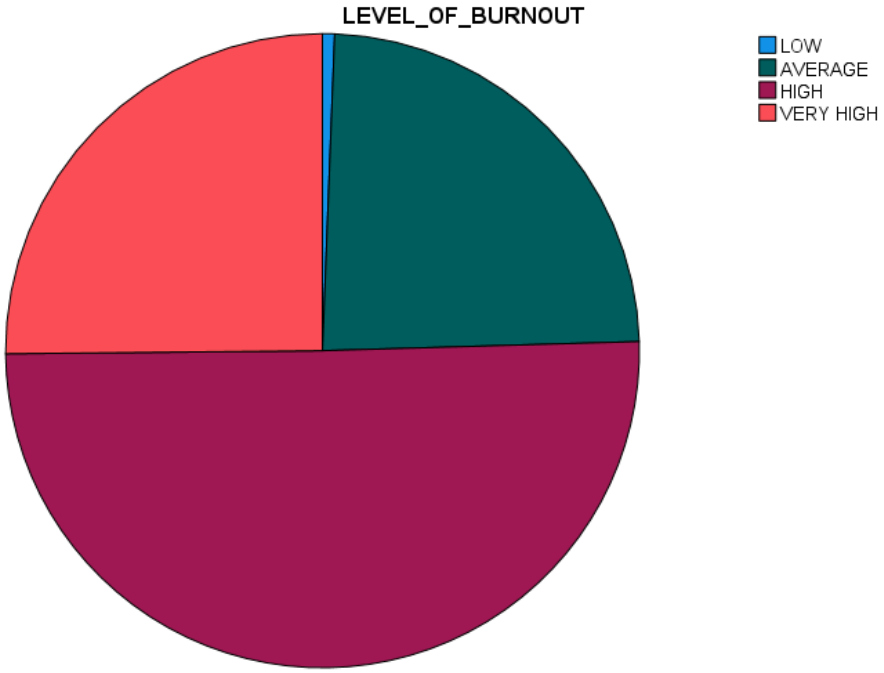
Analysis was done on the participants level of burnout. About 50% of the participants reported having a high degree of burnout (*n* = 82, 50.3%). (See table 4.3.1)

Table 4. 2

Level of burnout among UNIMAS undergraduate nursing students

Level of burnout	Frequency (*n*)	Percentage (%)
Low	1	0.6
Average	39	23.9
High	82	50.3
Very High	41	25.2

Figure 4.2: The level of burnout among UNIMAS undergraduate nursing students



4.4 Relationship between age, week of clinical experience and level of burnout among UNIMAS undergraduate nursing students

The relationship between age and level of burnout was investigated using Spearman correlation coefficient. Preliminary analyses were performed and there was a violation of the assumptions of normality for age, $D(163) = .153$, $p < .001$ and level of burnout, $D(163) = .255$, $p = <.001$. No outliers or extreme values were detected from the box plot. There is no significant relationship between the level of burnout and age, with $r_s(163) = -.047$, $p > 0.05$ (refer to Table 4.3).

Preliminary analyses were performed and there was a violation of the assumptions of normality for weeks of clinical experience, $D(163) = .300$, $p < .001$ and level of burnout, $D(163) = .255$, $p < .001$. No outliers or extreme values were detected from the box plot. The

analysis finding (refer Table 4.3) shows that there was no significant correlation between a student's level of burnout and the amount of clinical experience, with $r_s(163) = -.009$, $p > 0.05$.

Table 4.3

Spearmen Correlation Test between age, week of clinical experience and level of burnout among UNIMAS undergraduate nursing students

		Level of burnout	Age	Weeks of Clinical Experience
Level of burnout	Correlation Coefficient	1.000	-.047	-.009
	Sig (2-tailed)		.555	.906
	N	163	163	163
Age	Correlation Coefficient	-.047	1.000	
	Sig (2-tailed)	.555		
	N	163	163	163
Week of clinical experience	Correlation Coefficient	-.009		1.000
	Sig (2-tailed)	.906		
	N	163	163	163

4.5 Association between other general characteristics with level of burnout among UNIMAS undergraduate nursing students

A Chi-Square Test had been conducted to examine the association between other general characteristics (gender, year of study, race and household) and level of burnout among UNIMAS undergraduate nursing students. The Chi-Square test was applied to examine the association between two categorical variables. It can be used to ascertain whether variables measured on an ordinal or nominal scale have a meaningful association (McHugh, 2013). Table 4.4 shows the study findings in relation to the Chi square analysis. The findings indicates that there is no significant association between level of burnout with gender [$X^2(3, 163) = 2.755$, $p > 0.05$]; year of study[$X^2(9, 163) = 5.708$, $p > 0.05$];race [$X^2(6, 163) = 6.407$, $p > 0.05$] and . household [$X^2(6, 163) = 6.584$, $p > 0.05$].

Table 4.4

Chi Square between other general characteristics and level of burnout among UNIMAS undergraduate nursing students

Category	Chi-square Value	df	p-value
Gender	2.755	3	.431
Year of study	5.708	9	.769
Race	6.407	6	.379
Household	6.584	6	.361

4.6 Summary

In summary, the findings of the statistical analyses carried out to investigate the relationships between burnout levels and demographic factors among 163 respondents were reported in this chapter. The distribution of the variables led to the use of non-parametric techniques for data analysis, such as the Chi-Square test to examine relationships between categorical variables like gender, year of study, race, household and week of clinical experience with burnout level and the Kruskal-Wallis test to examine the relationships between burnout levels across age. The results of this chapter indicate that the demographic variables this study looked at had no discernible impact on the respondents' levels of burnout. These findings raise the idea that burnout may be more influenced by factors not covered in this chapter. The next chapter will go into more detail about these findings' impacts and more discussion.

CHAPTER 5: DISCUSSION

5.1 Introduction

This chapter focus on discussing the findings on level or burnout and its relationship/association with social demographic variables. Based on the objective of this study, a discussion of the findings will be reported. The results were discussed and explained using supports and comparison from earlier literature. Summary of findings, implication, limitation, and recommendation will be presented in this chapter as well.

5.2 Level of Burnout among UNIMAS undergraduate nursing students

Out of 163 participants in this study, 82 (50.3%) of undergraduate nursing students at UNIMAS were suffering from high level of burnout. According to several research, this prevalence is noticeably greater than the global average. For example, according to Rudman and Gustavsson (2012), during three years of education, Swedish nursing students' burnout rates increased gradually from 30% to 41%, with a notable increase in both exhaustion and disengagement. Similarly, Gómez-Urquiza et al. (2023) found that 41% of nursing students globally had high levels of emotional exhaustion, a key component of burnout, and the overall prevalence of burnout among nursing students was approximately 19%. Furthermore, emotional exhaustion (47.1%), depersonalization (32.2%), and decreased personal accomplishment (43.5%) were identified by Kong et al. (2023) as the main aspects of burnout experienced by nursing students, and the study shows the prevalence of burnout globally to be 23%. Clinical exposure, student support services, and curricula vary by university and nation. Higher levels of burnout may happen due to UNIMAS students were subjected to more rigorous evaluations, or longer clinical hours.

However, the findings from this study are nearly identical to study by Prakash et al. (2023). According to the study, academic burnout affected 61.7% of Indian undergraduate nursing students, with emotional exhaustion and disengagement being the most common symptoms. This is consistent with the experiences of nursing students at UNIMAS, who probably face comparable demands and expectations in their academic lives. Burnout among nursing students worldwide is known to be caused by the emotional and physical strain of juggling between education and clinical practice (Ma et al., 2022).

It was discovered that a number of particular Burnout Assessment Tool (BAT) items significantly influenced participants' total burnout levels. The greatest proportion of "often" and "always" responses were found on items pertaining to fatigue and cognitive impairment (refer Table 5.2). Notably, Item 1: "I feel mentally exhausted" had a combined score of 23.9%, and Item 3: "I feel physically exhausted" had a combined score of 27%, suggesting that both physical and emotional exhaustion were frequently experienced. Item 10: "I have trouble staying focused" (26.3%), Item 11: "I have trouble concentrating" (25.2%), and Item 12: "I make mistakes because I have my mind on other things" (25.2%) were also shown to have significant ratings for cognitive symptoms. These results underline the need for focused treatments including time management training, mental health assistance, and academic coping mechanisms by indicating that fatigue and cognitive overload are the primary causes of burnout among UNIMAS nursing students.' In order to lower the risk of burnout, the results highlight the critical need for institutional initiatives focused on early screening, stress management education, and faculty support networks. Recent research has indicated that encouraging resilience, self-efficacy, and academic engagement are successful tactics (Wang et al., 2021).

Table 5.2

Questionnaire level of burnout among UNIMAS undergraduate nursing students

Item	Never **n (%)**	Rarely **n (%)**	Sometimes **n (%)**	Often **n (%)**	Always **n (%)**
1. I feel mentally exhausted.	1 (0.6)	40 (24.5)	83 (50.9)	31 (19.0)	8 (4.9)
2. I find it hard to recover my energy.	6 (3.7)	65 (39.9)	65 (39.9)	20 (12.3)	7 (4.3)
3. I feel physically exhausted.	2 (1.2)	31 (19.0)	86 (52.8)	34 (20.9)	10 (6.1)
4. I struggle to find any enthusiasm during class.	6 (3.7)	57 (35.0)	60 (36.8)	30 (18.4)	10 (6.1)
5. I feel a strong aversion towards my assignments.	12 (7.4)	44 (27.0)	76 (46.6)	26 (16.0)	5 (3.1)
6. I am cynical about what my work means to others.	14 (8.6)	42 (25.8)	62 (38.0)	38 (23.3)	7 (4.3)
7. I feel unable to control my emotions.	16 (9.8)	75 (46.0)	56 (34.4)	13 (8.0)	3 (1.8)
8. I do not recognize myself in the way I react emotionally.	30 (18.4)	69 (42.3)	43 (26.4)	19 (11.7)	2 (1.2)
9. I may overreact unintentionally.	11 (6.7)	61 (37.4)	61 (37.4)	24 (14.7)	6 (3.7)
10. I have trouble staying focused.	5 (3.1)	51 (31.3)	64 (39.3)	33 (20.2)	10 (6.1)
11. I have trouble concentrating.	8 (4.9)	53 (32.5)	61 (37.4)	28 (17.2)	13 (8.0)
12. I make mistakes because I have my mind on other things.	7 (4.3)	35 (21.5)	80 (49.1)	34 (20.9)	7 (4.3)

5.3 Relationship/Association between social demographic variables and level of burnout among UNIMAS undergraduate nursing students

Based on the results from this study, age may not be a reliable indicator of burnout among UNIMAS nursing students, which demonstrated by a negligible and non-statistically significant relationship between age and burnout level $r_s(163) = -.047$, $p = .555$. This result is in contrast with previous research by Rudman and Gustavsson (2012), which found that burnout levels rose as students aged and advanced through nursing schools. According to a study by Friganović et al. (2023), age also has a big impact on stress levels. Younger students had higher rates of burnout than older students, which could be because they have less clinical experience. Study by Prakash et al (2023) showed that burnout experiences among nursing students have been found to be significantly influenced by age. Age is strongly correlated with academic burnout, with older students reporting higher levels of stress and exhaustion. The disparities between these studies and the current findings imply that curriculum design, institutional culture, and the availability of support resources throughout academic years may all have a significant impact on how age affects burnout. The comparatively constant format of clinical and academic exposure at UNIMAS may help explain why burnout levels are similar for all age groups.

A Chi-square test was used to look at the association between gender and burnout level, and the results showed no significant correlation ($\chi^2(3, 163) = 2.755$, $p > 0.05$). This implies that within the UNIMAS nursing cohort, burnout levels were similar for male and female students. However, given that the majority of participants were female, the gender imbalance in the sample might have had an impact on this outcome. When evaluating the findings, it is important to keep in mind that the lower number of male respondents may make it more difficult to identify actual gender disparities. This result is similar to a finding

by Friganovic et al. (2023) whereby this study also reported no significant gender difference in burnout levels among Croatian nursing students. However, this outcome is in contrast to research by Nguyen et al. (2024), which found that female students are more likely to suffer from academic stress and emotional tiredness Further indicating possible gender-based susceptibility to burnout, Lopes and Nihei (2020) discovered that female nursing students displayed higher levels of emotional weariness during clinical experience. Study by Prakash et al (2023) shows that burnout experiences among nursing students have been found to be significantly influenced gender. Gender was strongly correlated with academic burnout, with female nursing students reporting higher levels of stress and exhaustion. The lack of notable gender disparities at UNIMAS might be the result of more fair access to support networks or a more balanced division of clinical and academic duties. While ongoing evaluation of gender-specific needs is still crucial, this shows that burnout therapies can be used generally across genders without requiring special customization.

Burnout among nursing students is often thought to be significantly influenced by the year of education. As Swedish nursing students advanced through their academic years, Rudman and Gustavsson (2012) found that the rate of burnout increased significantly, from 30% to 41%, underscoring the increasing demands of both academics and clinicals in later stages. However in this study, the findings did not find a significant correlation between burnout level and year of study ($\chi^2(9, 163) = 5.708$, $p > 0.05$), suggesting that burnout levels among UNIMAS nursing students were comparatively constant over study years. This result aligns with a study by Liu et al. (2023), who found that although burnout was common among undergraduate nursing students, its relationship to the year of study was not always statistically significant. According to Liu et al. (2023), variations in coping strategies, student support networks, and curriculum design may be the cause for the variation in

burnout levels among academic years. The consistent burnout experiences observed at UNIMAS may be attributed to the program's rather uniform distribution of academic and clinical obligations, underscoring the necessity of comprehensive support interventions across all study years. Furthermore, due to greater clinical exposure and academic stress, students in the last years reported higher degrees of burnout (Galdino et al., 2020). The consistent levels of burnout at UNIMAS, irrespective of the year, could be explained by the comparatively consistent allocation of coursework and clinical hours across the academic calendar. This emphasizes how crucial it is to provide constant support across all academic years, not just during significant turning points.

Despite the fact that race was a variable in this study, the results showed no significant correlation between race and burnout level ($\chi^2(6, 163) = 6.407$, $p > 0.05$), indicating that burnout levels among UNIMAS nursing students are generally similar across racial groups. This finding is in line with recent research by Nguyen et al. (2024), who looked at medical student burnout and discovered no significant differences in level of burnout based only on race or ethnicity. But Nguyen et al. pointed out that differences in burnout were noticeable when race combined with other variables, like disability status, especially for under-represented minority students who had multiple disabilities. This suggests that although race by itself might not be a reliable indicator of burnout, it can combine with other contextual or individual factors to affect psychological. Academic and clinical demands may be the main causes of burnout at UNIMAS, beyond the possible influence of racial inequalities. Based on the result of this study, academic and clinical stressors may have a greater impact on burnout than race alone in the multicultural yet academically standardized environment of UNIMAS. To better understand the complex experiences of student burnout,

future research should examine how race intersects with other demographic and psychosocial aspects.

For nursing students, clinical practice is a well-known source of stress that greatly increases the risk of burnout. Hwang and Kim (2022) discovered a considerable correlation between burnout and greater levels of stress, anxiety, and depression among students who had clinical practice experience. This is in line with research by Shin and Hwang (2020), who found that stress from clinical practice is a major contributor to burnout, especially in students who are less resilient. But according to this research, there was no statistically significant correlation between of weeks of clinical experience and burnout among UNIMAS undergraduate nursing students $r_s(163) = -.009$, $p = .906$. This suggests that burnout levels among UNIMAS nursing students are not directly impacted by the length of clinical exposure alone. This result is in contrasts with earlier research that found a correlation between longer clinical hours and higher levels of fatigue and disengagement. This result is also in contrasts with study from De Vasconcelos et al. (2020), who found that longer clinical experience weeks likely to exacerbate burnout because of ongoing emotional stress and patient care obligations. The clinical framework at UNIMAS may buffer the emotional strains usually associated with extended placements, as evidenced by the quality of supervision, faculty assistance, and clinical hour scheduling. This could account for the discrepancy with the findings. This implies that the length of clinical experience by itself, unless it is interpreted in light of the type and standard of the clinical setting, is not a reliable indicator of burnout.

Based on the results in this study, there is no significant association between household and level of burnout among UNIMAS undergraduate nursing students ($\chi^2(6, 163) = 6.584$, $p > 0.05$). This implies that students' living arrangements had little effect on how

burned out they were. This result is in contrasts with earlier studies by Labrague et al. (2018) that highlighted the protective role of social support in reducing burnout. Strong social support, especially from peers and family, is associated with decreased levels of burnout among nursing students. Living with family or friends can also offer practical and emotional support, which can prevent burnout symptoms, according to Hwang and Kim (2022). Based on a study by Prakash et al. (2023), living arrangements alone may not be a reliable indicator of burnout, but instead highlighting the importance of social interactions and individual coping strategies. These conflicting results demonstrate the intricate and multidimensional character of burnout and the need for more investigation into the ways in which living conditions and psychosocial factors interact to affect nursing students' wellbeing. The existence of peer and institutional support at UNIMAS may be making up for differences in family dynamics, emphasizing the significance of campus-based interventions and creating encouraging academic communities.

5.4 Implications and Recommendation

According to this study, burnout is very common among UNIMAS undergraduate nursing students, highlighting the critical need for institutional awareness and mental health assistance. Age, gender, year of study, weeks of clinical experience, race, and household were among the sociodemographic variables that were examined, however none of them demonstrated a statistically significant correlation with the level of burnout. These results imply that burnout may impact students regardless of their demographic profile or background, suggesting that it is a problem that affects all nursing students and is not limited to any group. Universities and nursing faculties should adopt comprehensive, inclusive

initiatives that support the well-being of all students rather than focusing just on specific subgroups.

5.4.1 Educational Implication

Regardless of sociodemographic background, burnout is very common among nursing students, which emphasizes the necessity of incorporating mental health and stress management into nursing school programs. Educators need to consider about including subjects like self-care techniques, emotional resilience, and coping strategies in their lesson plans. To make sure students are not overburdened with clinical and theoretical expectations, which can lead to emotional tiredness, academic calendars may also need to be evaluated. Establishing a supportive learning environment requires the provision of easily accessible peer support and counselling services. Furthermore, routine burnout monitoring and mental health exams during the academic year can assist in identifying early indicators of burnout. Lecturer and clinical instructors ought to receive training on how to identify burnout signs and direct students to the right support networks. Peer mentoring, structured feedback channels, and reflection sessions following clinical posting can help students in processing their feelings, lowering stress levels, and fostering a more positive academic environment. All things considered, these interventions can support an educational environment that puts students' welfare first and prepares them to handle the emotional demands of nursing school.

5.4.2 Nursing Profession

Undergraduate burnout can persist into professional practice, thereby affecting staff retention, job satisfaction, and patient safety. The results of this study imply that burnout is

not specific to any student population, indicating that all aspiring nurses are at risk. Early interventions, mentorship programs, and cultivating a culture of well-being that extends into the workplace must be given top priority by the profession. Professional associations can also contribute by promoting healthy workplace environment and reasonable expectations for recent graduates and students. In order to help young nurses navigate the stressful early stages of their careers, nursing profession should promote structured transition programs, such as graduate residency or transition-to-practice initiatives. Preventing burnout should be incorporated into continuing professional growth, along with safe rest periods, stress management classes, and access to mental health resources. Additionally, maintaining a healthy workplace requires support for safe staffing ratios, manageable workloads, and emotionally aware leadership. The profession must acknowledge that safeguarding the mental health of aspiring nurses must begin in education and continue throughout their clinical careers, since this study demonstrates that burnout begins as early as nursing school.

5.4.3 Policy Implication

The results indicate the necessity of national and institutional strategies to give mental health in nursing education top priority. Standardized frameworks for preventing burnout should be developed by universities and nursing schools. These frameworks should include staff training on detecting at-risk students, maximum clinical workload limits, and regular well-being assessments. Broadly speaking, policymakers in the field of health education should see burnout as a systemic problem that calls for all-encompassing, policy-driven solutions that assist students during their training and transition into clinical practice. Government funds should be set aside specifically for student mental health services and burnout prevention initiatives, and national nursing education policy should incorporate mental

health literacy and coping mechanisms. To guarantee safe workloads and efficient supervision, collaboration between clinical locations and educational institutions needs to be formalized. Finally, to guarantee that initiatives continue to be effective and relevant, policy revisions should be informed by the regular collecting and analysis of data on student burnout.

5.4.4 Nursing Research

Even though this study did not find any significant correlations between burnout and sociodemographic variables, it does pave the way for future investigations into psychosocial factors that may better explain burnout patterns, such as coping mechanisms, support networks, personality traits, and academic pressures. In order to investigate the individual experiences that contribute to student burnout, future research should take into account qualitative or mixed methods approaches. Longitudinal studies that follow students into their professional lives may potentially provide insight into the ways that early burnout affects future wellbeing and job performance. To find systemic causes of burnout, future research should also look at institutional elements such academic culture, clinical placement structure, and curriculum intensity. Cross-cultural and comparative research may also reveal how institutional or regional variations affect student stress. Additionally, assessing the success of initiatives to reduce burnout, like mentoring programs or resilience seminars, can help develop evidence-based strategies to enhance student outcomes and direct policy changes in nursing education.

5.5 Limitations of the study

It is important to recognize the various limitations of this study. First of all, the study was limited to UNIMAS undergraduate nursing students, which restricts the findings' applicability to students from other schools or areas with distinct educational contexts. Other than that, the study was unable to determine any causal correlations or changes in burnout levels over time because of the cross-sectional methodology, which also implies that data were only collected once. Furthermore, all the data were gathered via self-reported questionnaires, which could be skewed by self-assessment errors or social desirability bias. Finally, the study did not examine other pertinent factors like academic workload, coping mechanisms, personality traits, or mental health history, which could have offered a more thorough understanding of burnout. Instead, it concentrated solely on sociodemographic variables like age, gender, race, household, year of study, and weeks of clinical experience.

5.6 Summary

In conclusion, most of the students suffered from high level of burnout. However, none of the sociodemographic characteristics showed statistically significant correlations with level of burnout, indicating that burnout is a common problem. These results show the necessity of universal support for students' well-being in nursing school programs. It is important that nursing curricula incorporate interventions like stress management, emotional resilience training, and easily accessible mental health services. In the end, preventing burnout at an early stage is essential to protect students' health and making sure they are emotionally ready and supported when they enter the nursing field. Despite its limitations,

which include the cross-sectional design, self-reported data, and single-site sample, this study highlights the significance of addressing burnout early in nursing education to support students' academic and emotional health.

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APPENDIX I: ETHICAL APPROVAL APPLICATION LETTER

Deputy Vice Chancellor's Office
(Research and Innovation)
Medical Research Ethics Committee
Tel: 082 581222/1223
Fax: 082 665115

UNIVERSITI MALAYSIA SARAWAK
94300 Kota Samarahan

MEMORANDUM

Reference : UNIMAS/TNC(PI)/09 – 65/01 Jld.4 (42)

To : Azylina anak Gunggu
Faculty of Medicine & Health Sciences

From : Chair
Medical Research Ethics Committee

Date : 10 February 2025

Subject : **Research Ethics Approval:**
Level of Burnout among UNIMAS Undergraduate Nursing Students
Ethics Reference Number: FME/25/26

The above matter is referred.

Medical Research Ethics Committee, Universiti Malaysia Sarawak (UNIMAS) has provided ethical **APPROVAL** for this study on 31 January 2025 by Administrative. The investigators involved in this study are:

1) Azylina anak Gunggu (Principal Researcher)
Universiti Malaysia Sarawak

2) Nur Alyaa binti Mohd Sabirin
Universiti Malaysia Sarawak

All records and data are to be kept strictly CONFIDENTIAL and can only be used for the purpose of this study. All precautions are to be taken to maintain data confidentiality. Permission from all relevant heads of departments/units where the study will be carried out must be obtained prior to the study.

Please note that the approval is valid from **February 2025** to **February 2026** only. The reference number for this letter must be stated in all correspondence related to this study to facilitate the process.

Thank you with regards and well wishes.

Yours sincerely,

Professor Dr. Mohammad Zulkarnaen bin Ahmad Narihan
Chairman
Medical Research Ethics Committee

c.c: Deputy Vice Chancellor (Research & Innovation)
Director, UNIMAS Publisher

APPENDIX II: PARTICIPANT'S INFORMATION CONSENT FORM

TITLE OF STUDY: Level of burnout among UNIMAS Undergraduate Nursing Students.

MAIN RESEARCHER: Nur Alyaa Bt Mohd Sabirin

SUPERVISOR: Madam Azylina Anak Gunggu

COURSE COORDINATOR: Miss Feryante Rintika Anak Belansai

INSTITUTION: Faculty of Medicine and Health Science, Universiti Malaysia Sarawak

NAME OF SPONSOR: No external funding

THE NATURE AND PURPOSE OF THE STUDY

The objectives of this study are to assess the level of burnout among UNIMAS undergraduate nursing students and to examine the differences between burnout in relation to general characteristics among UNIMAS undergraduate nursing students. The study will be conducted for a duration of two months (1/3/2025 till 30/4/2025). The expected number of participants is 163 individuals.

INTRODUCTION

It is important that you understand why the research is being done and what it will involve. Please take your time to read through and consider this information carefully before you decide if you are willing to participate. Ask the main researcher if anything is unclear or if you would like more information. After you are properly satisfied that you understand this study, and that you wish to participate, you must sign this informed consent form.

Your participation in this study is voluntary. You do not have to be in this study if you do not want to. You may also refuse to answer any questions you do not want to answer. If you volunteer to be in this study, you may withdraw from it at any time. If you withdraw, any data collected from you up to your withdrawal will still be used for the study. Choosing not to participate or withdrawing at any stage will not affect your academic standing, exam performance, grades, or relationships with your lecturers, including the supervisor of this study. This assurance is provided to ensure that you feel free to make an independent decision about your participation.

This study has been approved by the Medical Research Ethics Committee of the Faculty of Medicine and Health Sciences.

RESPONSIBILITIES

It is important that you answer all the questions asked by the main researcher honestly and completely which will take about 10 to 15 minutes of your time.

You will be given a questionnaire to be answered. This form contains 2 sections which will consists of socio-demographics and burnout assessment.

RISK OF STUDY

You may experience discomfort or distress when answering questions about your burnout levels and related experiences. If you feel uncomfortable at any point, you are free to skip any question or withdraw from the study without any repercussions.

POSIBBLE BENEFITS OF STUDY PARTICIPATION

You will be informed of your level of burnout which can guide you to improve your well-being. The data collected from this study can help administrators and educators to create interventions that target the unique stressors that nursing students encounter. By classifying scores into categories of low, moderate, or high risk, the research helps participants gain clearer insight into their mental and emotional state. Students identified at higher risk of burnout will be offered general guidance, including stress management techniques, time management advice, and referrals to mental health support services.

CONFIDENTIALITY

All your information obtained in this study will be kept and handled in a confidential manner, in accordance with applicable laws and/or regulations. When publishing or presenting the study results, your identity will not be revealed without your expressed consent. Individuals involved in this study, qualified monitors and auditors, and governmental or regulatory authorities may inspect the study data, where appropriate and necessary.

NAME OF SPONSOR

This study does not receive any external funding.

TO OBTAIN FURTHER INFORMATION

Any inquiry or clarification can be referred directly to me, Nur Alyaa Bt Mohd Sabirin, WhatsApp at 019-5590207 or through my email, nuralyaa693@gmail.com.

Thank you,

Nur Alyaa Bt Mohd Sabirin (78355)

Final Year Nursing Student,

Faculty of Medicine and Health

Sciences,University Malaysia

Sarawak,Malaysia.

INFORMED CONSENT FORM

Title of study: Level of burnout among UNIMAS undergraduate nursing students

By signing below, I confirm the following:

- I have been given oral and written information for the above study and have read and understood the information given.
- I have had sufficient time to consider participation in the study and have had the opportunity to ask questions and all my questions have been answered satisfactorily.
- I understand that my participation is voluntary and I can at anytime free withdraw from the study without giving a reason and this will in no way affect my future treatment. I am not taking part in any other research study at this time. I understand the risks and benefits, and I freely give my informed consent to participate under the conditions stated. I understand that I must follow the study staff's instructions related to my participation in the study.
- I understand that main researcher, qualified monitors and auditors, the sponsor or its affiliates, and governmental or regulatory authorities, have direct access to my medical record in order to make sure that the study is conducted correctly and the data are recorded correctly. All personal details will be treated as STRICTLY CONFIDENTIAL
- I will receive a copy of this subject information/informed consent form signed and dated to bring home.

Subject:

Signature: I/C number:

Name: Date:

Investigator conducting informed consent:

Signature: I/C number:

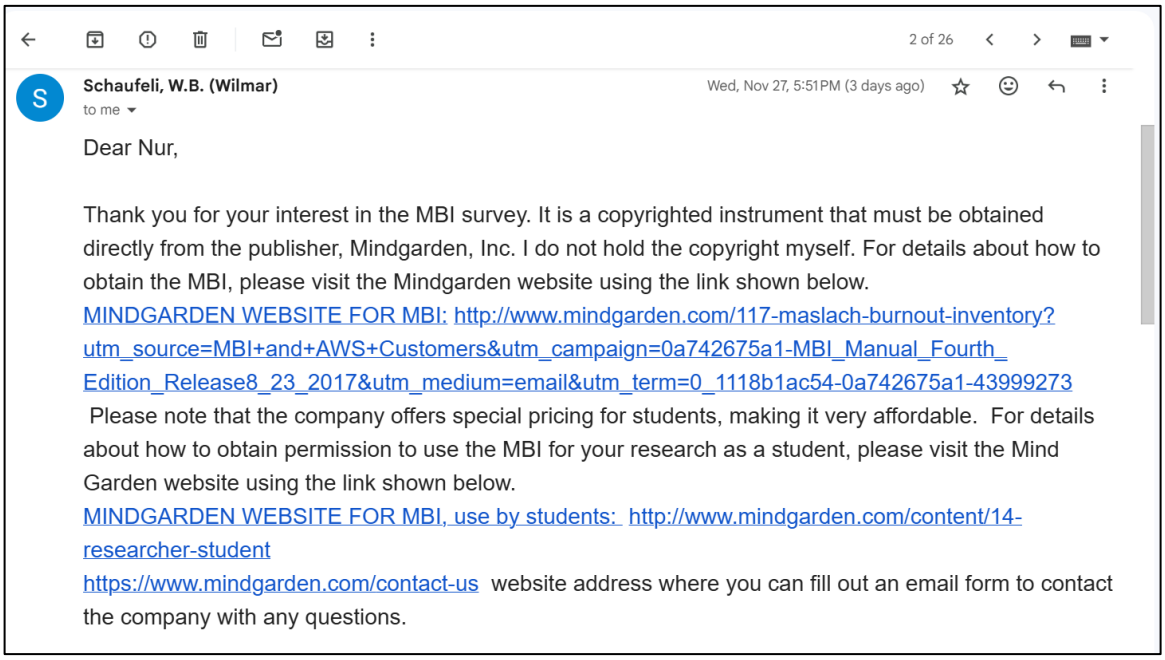
Name: Date:

Impartial witness:

Signature: I/C number:

Name: Date:

APPENDIX III: PERMISSION TO USE QUESTIONNAIRE



2 of 26

Schaufeli, W.B. (Wilmar) Wed, Nov 27, 5:51PM (3 days ago)

to me

Dear Nur,

Thank you for your interest in the MBI survey. It is a copyrighted instrument that must be obtained directly from the publisher, Mindgarden, Inc. I do not hold the copyright myself. For details about how to obtain the MBI, please visit the Mindgarden website using the link shown below.
MINDGARDEN WEBSITE FOR MBI: http://www.mindgarden.com/117-maslach-burnout-inventory?utm_source=MBI+and+AWS+Customers&utm_campaign=0a742675a1-MBI_Manual_Fourth_Edition_Release8_23_2017&utm_medium=email&utm_term=0_1118b1ac54-0a742675a1-43999273
Please note that the company offers special pricing for students, making it very affordable. For details about how to obtain permission to use the MBI for your research as a student, please visit the Mind Garden website using the link shown below.
MINDGARDEN WEBSITE FOR MBI, use by students: http://www.mindgarden.com/content/14-researcher-student
https://www.mindgarden.com/contact-us website address where you can fill out an email form to contact the company with any questions.

Recently, an alternative burnout questionnaire has been developed by me and my colleagues that is freely available without any charge. Please visit for more information: www.burnoutassessmenttool.be. Best wishes for success with your project.

With kind regards,
Wilmar Schaufeli

APPENDIX IV: DATA COLLECTION INSTRUMENT

SECTION A: Socio-demographic data

Please complete the following information. Kindly tick (/) or fill in your answer in provided area.

1. Age: _____
2. Gender:

   ( ) Male ( ) Female
3. Year of study:

   ( ) Year 1 ( ) Year 2 ( ) Year 3 ( ) Year 4
4. Race:

   ( ) Malay ( ) Chinese ( ) India ( ) Iban ( ) Bidayuh Others: _____
5. Clinical experience:

   ( ) Yes ( ) No

   If yes, how many weeks have you attend your clinical practical?

   _____
6. Household:

   ( ) Lives alone ( ) Live with family ( ) Live with friends

SECTION B: Level of burnout

Instructions: The following statements are related to how you feel. Please state how often each statement applies to you.

No.	Items	Never	Rarely	Sometimes	Often	Always
1.	I feel mentally exhausted.	1	2	3	4	5
2.	I find it hard to recover my energy.	1	2	3	4	5
3.	I feel physically exhausted.	1	2	3	4	5
4.	I struggle to find any enthusiasm during class.	1	2	3	4	5
5.	I feel a strong aversion towards my assignments.	1	2	3	4	5
6.	I am cynical about what my work means to others.	1	2	3	4	5
7.	I feel unable to control my emotions.	1	2	3	4	5
8.	I do not recognize myself in the way I react emotionally.	1	2	3	4	5
9.	I may overreact unintentionally.	1	2	3	4	5
10.	I have trouble staying focused.	1	2	3	4	5
11.	I have trouble concentrating.	1	2	3	4	5

12.	I make mistakes because I have my mind on other things.	1	2	3	4	5

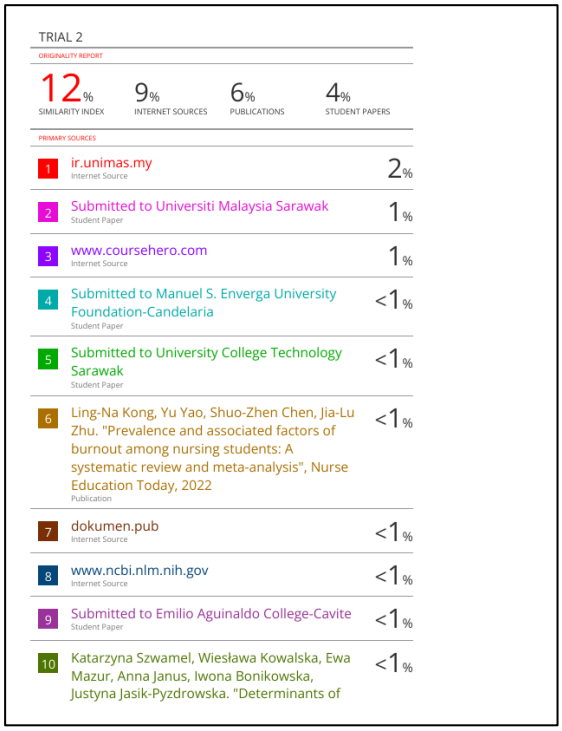
APPENDIX V: GANTT CHART

ACTIVITY	MONTHS								
	2024			2025					
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE
Determination of research title									
Literature Review									
Meeting Supervisor									
Submit oral defense slide									
Ethical Approval									
Submission first draft									
FYP 1: Submission research proposal									
Data collection									
Data Analysis									
Writing up report									
Submit final draft									
FYP 2: Submission final project									

APPENDIX VI: BUDGET PLANNING

ITEMS	BUDGET (RM)
SPSS SOFTWARE	5.00
PRINTING AND BINDING SERVICES FOR FYP REPORT	35.00
INTERNET DATA PLAN	50.00
HARDCOPY QUESTIONNAIRE	100.00
TOTAL	**190.00**

APPENDIX VII: TURNITIN



TRIAL 2

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