

Effect of a 5-Minute Mindfulness-of-Gratitude Practice on Suffering and Spiritual Well-Being in Palliative Care Inpatients: A Randomized Controlled Study

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A Part of Sage

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Abstract

Background: Suffering in advanced illness is multidimensional and often includes existential and spiritual distress. Brief interventions that can be tolerated at the bedside may be useful in palliative care, but ultra-brief gratitude-focused mindfulness has not been formally evaluated in this setting.

Objective: To determine whether a single 5-minute mindfulness-of-gratitude practice reduces suffering and improves spiritual well-being among palliative care inpatients compared with attention-matched supportive listening.

Methods: In this parallel-group, open-label randomized controlled study, adult palliative care inpatients with an Overall Suffering Score $\geq 4/10$ were randomized 1:1 to a scripted 5-minute mindfulness-of-gratitude practice or a 5-minute supportive-listening conversation, both delivered by the same trained clinician. Overall suffering, total suffering, and spiritual well-being measured using the Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being Scale (FACIT-Sp12) were assessed immediately before and after the session.

Results: Forty patients were randomized, with 20 in each arm, and all completed the protocol. Compared with supportive listening, the mindfulness-of-gratitude arm showed greater reductions in overall suffering (median change -2.5 vs -1.0 ; $P < 0.001$) and total suffering (-2.0 vs -1.0 ; $P = 0.037$), and greater improvement in FACIT-Sp12 score ($+2.0$ vs 0.0 ; $P = 0.001$). No adverse events were reported.

Conclusions: A single 5-minute mindfulness-of-gratitude practice produced immediate reductions in suffering and improvements in spiritual well-being. This brief, low-risk intervention may be a practical adjunct to routine inpatient palliative care, although durability and generalizability require further study.

Keywords

palliative care, mindfulness, gratitude, suffering, spiritual well-being, supportive listening

Introduction

Cassell's formulation of suffering as a threat to personhood rather than a sum of symptoms remains the conceptual anchor of palliative medicine.^{1,2} For patients with advanced illness, this threat takes concrete forms: the loss of functional capacity, the narrowing of social roles, the foreshortening of plans and envisioned futures, and the growing sense that one's identity is being dismantled faster than it can be reconstituted.³ Multidisciplinary care, including expert symptom management, does not uniformly resolve this experience. Cross-sectional data from hospitalized patients with advanced cancer indicate that a majority continue to report at least one moderate-to-severe unrelieved symptom, with roughly six in ten describing ongoing distress despite specialist input.⁴

Existential and spiritual concerns are often the dominant contributors to residual suffering at the end of life.^{5,6} Spirituality, understood broadly as the means by which a person makes sense of experience and maintains a sense of

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connection to self, others, and something larger, is now recognized as a core domain of whole-person care.⁷ Up to 44% of seriously ill patients report significant spiritual distress, expressed variably as loss of meaning, uncertainty about previously held beliefs, or a sense of disconnection.⁸ Unmet spiritual needs track with higher symptom burden, poorer psychological adjustment, and lower quality of life, whereas greater spiritual well-being is associated with better psychological outcomes and overall quality of life.^{8,9} There is therefore a clear case for accessible, low-burden interventions that attend directly to the spiritual dimension of suffering.

Non-pharmacological approaches that address meaning, spirituality, and psychological adjustment have an established role in this work.⁷ Among them, gratitude and mindfulness-based practices are of particular interest. Gratitude, conceptualized in positive psychology as an orientation toward noticing and valuing what is present and given rather than what is absent or lost, is associated with better psychological adjustment, resilience, and meaning-making in patients with cancer and other chronic illnesses.^{10,11} A prior randomized trial by our group found that a 7-day mindful gratitude journaling exercise reduced self-reported suffering and improved anxiety, depression, and spiritual well-being in adults with advanced cancer.¹⁰ Mindfulness-based interventions, delivered in varied formats, reduce distress and support existential well-being in oncology populations.¹²⁻¹⁹

These findings are promising but pose a practical problem. Formal mindfulness programs and meaning-centered psychotherapies were not designed with the rhythms of inpatient palliative care in mind; they typically require multiple sessions and sustained engagement over weeks, which is not always compatible with the physical state, cognitive reserve, or prognosis of the patients who might benefit most. Gratitude-based interventions published to date have likewise relied on multi-day journaling or letter-writing.^{10,11} A single, structured, ultra-brief session that combines mindful attention with deliberate orientation toward gratitude—something that could be offered at the bedside during a routine encounter—has not, to our knowledge, been evaluated in a palliative care cohort.

We therefore conducted a randomized controlled trial to test whether a 5-minute mindfulness-of-gratitude practice, compared with an attention-matched supportive-listening control, would reduce suffering and improve spiritual well-being in adult palliative care inpatients.

Methods

Study Design and Setting

This was a parallel-group, open-label, randomized controlled study conducted between January and June 2019 in the Palliative Care Unit of University Malaya Medical Centre (UMMC), a quaternary academic teaching hospital in Kuala Lumpur, Malaysia. The study was approved by the UMMC

Medical Research Ethics Committee (MREC 2017917-5573) and conducted in accordance with the Declaration of Helsinki. All participants provided written informed consent before enrollment. The study is reported in line with the CONSORT 2010 statement.

Participants

Adult inpatients (≥ 18 years) under the care of the palliative care service were screened consecutively. Patients were eligible if they reported an Overall Suffering Score of $\geq 4/10$ on the Suffering Pictogram,²⁰ and were judged by the study clinician to be able to follow brief guided instructions. Patients were excluded if they were unable to communicate verbally, had delirium as identified by the Confusion Assessment Method,²¹ were unconscious (on the Glasgow Coma Scale), or declined to participate.

Randomization and Allocation

Eligible participants were randomized 1:1 to the 5-minute mindfulness-of-gratitude practice or the 5-minute supportive-listening control using a computer-generated allocation sequence. Allocation was concealed in sequentially numbered, opaque, sealed envelopes opened at the bedside after consent. Because both interventions were conversational and delivered openly, blinding of patients and facilitators was not feasible.

Interventions

Both interventions lasted 5 minutes and were delivered by the same trained medical doctor in the patient's usual room, with visitors asked to step out. Using a common facilitator and identical duration was a deliberate choice intended to match the two arms on therapeutic attention, warmth, and time, isolating the active content of the gratitude practice.

The gratitude arm received a scripted 5-minute guided practice adapted from established brief mindfulness protocols.²² Patients were invited to bring attention, in turn, to the breath, to bodily sensations, to a person or people they felt close to, and to the immediate surrounding environment, and—at each step—to notice something about that object of attention for which they could feel gratitude. Drifting attention was redirected gently and without comment.

The supportive-listening arm engaged in a 5-minute semi-structured conversation with the same facilitator, using open-ended prompts about the patient's illness experience and personal circumstances. The facilitator offered empathic, non-directive listening without advice, reassurance, interpretation, or redirection, mirroring the posture of a standard supportive bedside encounter. The full scripts and prompt sets for both arms are provided in [Table 1](#).

Table 1. Instructions and Semi-structured Questions

Instruction for 5-Minute Mindfulness of Gratitude (Intervention)
Make yourself comfortable
Relax your body
Close your eyes gently
Take two deep breaths slowly
Then, breathe naturally
Rest your attention gently on your breath
Now, make a wish from the depth of your heart: I am going to train myself in developing gratitude to myself and others
First, feel grateful for your breathing
You are happy and contented simply because you are breathing
You are grateful to your breath which brings you fresh air
You are grateful to your body which has allowed you to do so many things in your life
And you are grateful to every part of your body – your feet, legs, thighs, abdomen, chest, shoulders, arms, hands, neck and head
Let the feeling of gratitude, joy and contentment fill every part of your body
If you are distracted by any sounds, bodily sensations or thoughts, gently bring your attention back to your feeling of gratitude
Let this feeling of gratitude and joy permeate your whole body
Then, extend your gratitude to your family
Feel grateful to your friends
Feel grateful to all those who have helped you in one way or another
Feel grateful to the whole universe
Rest your attention on boundless gratitude for the next few minutes
Semi-structured questions for 5-Minute Supportive Listening (Control)
Please tell me about your illness
Please tell me about yourself
Please tell me about your life
Please tell me about things that are important to you

Outcome Measures

Outcomes were assessed immediately before (minute 0) and immediately after (minute 5) the session by the same facilitator.

Suffering was measured using the Suffering Pictogram, a brief instrument developed and validated in palliative care populations.²⁰ Patients rate overall suffering at the center of the pictogram from 0 (no suffering) to 10 (worst imaginable suffering). Eight surrounding domains—discomfort, worry, fear, anger, sadness, hopelessness, non-acceptance, and emptiness—are each rated on a 0-4 Likert scale, giving a total suffering score between 0 and 32, with higher values indicating greater suffering.

Spiritual well-being was measured using the Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being Scale, 12-item version (FACIT-Sp12, Version 4).²³ The instrument comprises three subscales—meaning, peace, and faith—each item scored 0-4, with higher totals reflecting better spiritual quality of life.

Sample Size

The sample size was based on a previous trial of a brief mindfulness intervention in patients with advanced illness, which reported a mean overall suffering score of 4.06 (SD 2.28).²⁴ To detect a clinically meaningful between-group difference of 2 points on the 0-10 overall suffering scale,

with 80% power and a two-sided α of 0.05, 20 patients per arm (total 40) were required.

Statistical Analysis

Analyses were performed using SPSS version 23.0 (SPSS Inc., Chicago, IL). Continuous variables are presented as means (SD) or medians (interquartile range, IQR) depending on distribution; categorical variables as counts and percentages. Baseline characteristics were compared using independent-samples *t* tests or the Mann–Whitney *U* test for continuous variables, and chi-square or Fisher's exact tests for categorical variables. Within-group pre–post changes were analyzed with the Wilcoxon signed-rank test, and between-group differences in change scores with the Mann–Whitney *U* test. All tests were two-sided, with $P < 0.05$ considered statistically significant. All 40 randomized patients completed assessments and were analyzed on an intention-to-treat basis.

Results

Participant Flow

Of 56 patients screened, 2 were excluded for a baseline Overall Suffering Score below 4/10 and 14 declined to participate. Forty patients were randomized (20 per arm) and all completed the protocol (Figure 1).

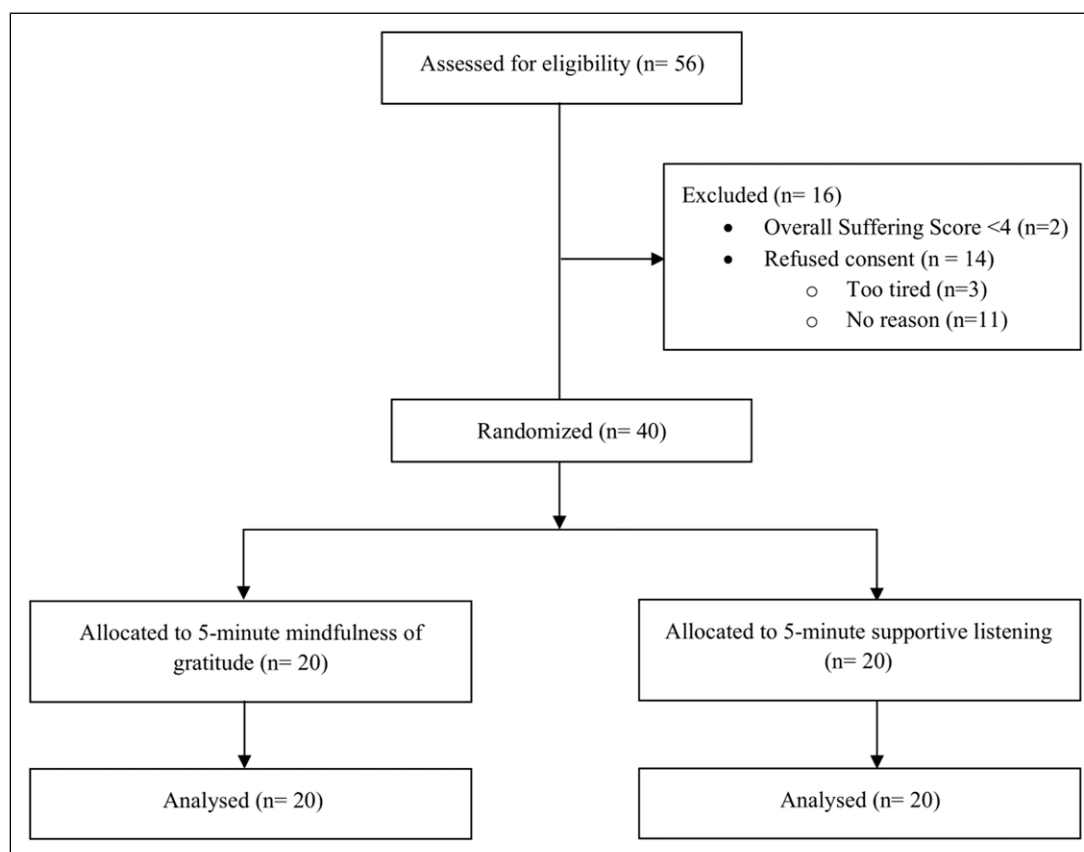


Figure 1. Flow of participants through study protocol

Baseline Characteristics

Baseline demographic and clinical characteristics are shown in Table 2. Mean age was similar between the mindfulness-of-gratitude and supportive-listening arms, at 59.2 ± 11.65 years and 58.3 ± 11.67 years. Most participants were women (92.5%) and of Chinese ethnicity (60.0%), with smaller proportions of Malay (25.0%) and Indian patients (15.0%). Breast cancer was the most common primary diagnosis (67.5%). Most patients had an Eastern Cooperative Oncology Group (ECOG) performance status of 2-3 (95.0%). Both arms were balanced on most baseline demographic and clinical characteristics; however, statistically significant between-group differences were observed for education level ($P = 0.017$), ECOG performance status ($P = 0.004$), and baseline total suffering score, which was higher in the supportive-listening arm than in the mindfulness-of-gratitude arm (median 9.5 [IQR 17] vs 4.0 [IQR 9], $P = 0.049$).

Primary and Secondary Outcomes

Baseline and post-intervention scores for all outcomes are presented in Table 3, and between-group comparisons of change scores are presented in Table 4.

Within-group analyses showed significant pre-post improvements in all outcomes in both arms. In the mindfulness-of-gratitude arm, median overall suffering

decreased from 5.0 to 3.0 ($P < 0.001$), total suffering decreased from 4.0 to 2.0 ($P < 0.001$), and FACIT-Sp12 increased from 43.0 to 45.5 ($P < 0.001$). In the supportive-listening arm, median total suffering decreased from 9.5 to 8.5 ($P = 0.005$), and FACIT-Sp12 increased from 39.0 to 39.5 ($P = 0.042$). The paired change in overall suffering was also statistically significant in the supportive-listening arm ($P < 0.001$), although the median score remained unchanged at 5.0.

Compared with supportive listening, the mindfulness-of-gratitude arm showed a significantly greater reduction in overall suffering (median change -2.5 , IQR 1.0, vs -1.0 , IQR 1.0; $U = 38.0$, $Z = -4.56$, $P < 0.001$) and total suffering (median change -2.0 , IQR 2.0, vs -1.0 , IQR 2.0; $U = 125.0$, $Z = -2.08$, $P = 0.037$). The mindfulness-of-gratitude arm also showed a significantly greater improvement in FACIT-Sp12 total score (median change $+2.0$, IQR 2.0, vs 0.0, IQR 0.8; $U = 89.0$, $Z = -3.19$, $P = 0.001$). No adverse events were reported in either arm.

Discussion

In this randomized controlled study of 40 palliative care inpatients, a single 5-minute mindfulness-of-gratitude practice produced larger and statistically significant reductions in

Table 2. Baseline Demographic and Clinical Characteristics

Characteristics	Technique		P value
	5-Minute mindfulness of gratitude (N = 20)	5-Minute supportive listening (N = 20)	
Mean age $\pm$ SD	59.2 $\pm$ 11.65	58.3 $\pm$ 11.67	0.961*
Gender, n (%)			
Male	1 (5.0)	2 (10.0)	
Female	19 (95.0)	18 (90.0)	1.000 ⁺
Ethnicity, n (%)			
Malay	6 (30.0)	4 (20.0)	
Chinese	11 (55.0)	13 (65.0)	0.753
Indian	3 (15.0)	3 (15.0)	
Religion, n (%)			
Islam	6 (30.0)	4 (20.0)	
Buddhism	7 (35.0)	12 (60.0)	0.205
Christianity	2 (10.0)	3 (15.0)	
Hinduism	5 (25.0)	1 (5.0)	
Marital status, n (%)			
Single	0	4 (20.0)	
Married	20 (100)	16 (80.0)	0.106 ⁺
Education level, n (%)			
Primary	0	6 (30.0)	
Secondary	14 (70.0)	12 (60.0)	0.017
Tertiary	6 (30.0)	2 (10.0)	
Diagnosis			
Breast cancer	12 (60.0)	15 (75.0)	
Lung cancer	2 (10.0)	0	0.111
Gastrointestinal cancer	2 (10.0)	0	
Hepatobiliary/Pancreatic cancer	3 (15.0)	0	
Urologic/Gynaecologic cancer	0	1 (5.0)	
Sarcoma	0	1 (5.0)	
Head & Neck cancer	1 (5.0)	3 (15.0)	
ECOG, n (%)			
1	0	0	
2	12 (60.0)	2 (10.0)	0.004
3	7 (35.0)	17 (85.0)	
4	1 (5.0)	1 (5.0)	
Minute 0, Median (IQR)			
Overall suffering,	5.0 (4)	5.0 (5)	0.549 [#]
Total suffering,	4.0 (9)	9.5 (17)	0.049 [#]
FACIT-Sp-12,	43.0 (9)	39.0 (9)	0.082 [#]

ECOG = Eastern Cooperative Oncology Group, IQR = Interquartile range, FACIT-Sp-12 = Functional Assessment of Chronic Illness Therapy Spiritual Well-Being; The 12 item Spiritual Well Being Scale, * from independent sample t-test, ⁺ from Fisher's exact test, [#] from Mann Whitney U test, other P-values from Chi-Square test.

Table 3. Pre- and Post-Intervention Outcome Scores by Group

Characteristics	Technique	
	5-Minute mindfulness of gratitude, median (IQR)	5-Minute supportive listening, median (IQR)
Minute 0		
Overall suffering	5.0 (4)	5.0 (5)
Total suffering	4.0 (9)	9.5 (17)
FACIT-Sp-12	43.0 (9)	39.0 (9)
Minute 5		
Overall suffering	3.0 (3)	5.0 (4)
Total suffering	2.0 (6)	8.5 (17)
FACIT-Sp-12	45.5 (8)	39.5 (8)
P-value [†]		
Overall suffering	<0.001	<0.001
Total suffering	<0.001	0.005
FACIT-Sp-12	<0.001	0.042

IQR = Interquartile range, FACIT-Sp-12 = Functional Assessment of Chronic Illness Therapy Spiritual Well-Being; The 12 item Spiritual Well Being Scale, [†] = Wilcoxon signed-rank test.

overall and total suffering and greater improvement in spiritual well-being than an attention-matched supportive-listening conversation of identical length, delivered by the same clinician. The effects were observable within minutes, which has both clinical and theoretical interest.

What the Findings Suggest

The simplest reading is that the practice briefly reorganizes attention. Patients with advanced illness often describe their inner life as dominated by what has been lost or is being lost—function, plans, the person they used to be.²⁵ Gratitude, operationalized here as the deliberate noticing of what is still present and still given—the breath, a tolerable sensation, a person they love, a window, a visitor's voice—offers a competing object of attention.²⁶ On Fredrickson's broaden-and-build account, positive affective states of this kind widen the scope of cognition and open room for reappraisal; in Cassell's framing, the same shift

may soften, for a moment, the sense that personhood is being subtracted.^{1,2} We are cautious about stronger mechanistic claims from a single pre-post measurement, but the pattern—reduced suffering coinciding with a rise in the meaning and peace components of FACIT-Sp12—is internally consistent with this interpretation. This may reflect gratitude working through emotional regulation, a renewed sense of meaning and purpose, and, for some patients, faith-based coping.

The fact that effects were observable after 5 minutes argues against a purely dose-dependent, skill-acquisition model of mindfulness benefit. It is compatible with an experiential or state-level pathway, in which the practice creates an immediate change in the patient's present-moment phenomenology rather than slowly retraining a habit. This is a familiar observation among clinicians who use brief bedside contemplative techniques, but it is worth stating plainly because most of the mindfulness evidence base in oncology has been built on multi-week programs.

Table 4. Between-Group Differences in Change Scores

	Technique				<i>U</i>	<i>Z</i>	<i>P</i> value [#]
	5-Minute mindfulness of gratitude		5-Minute supportive listening				
	Median (IQR)	Mean rank	Median (IQR)	Mean rank			
Differences							
Overall suffering	−2.5 (1.0)	12.40	−1.0 (1.0)	28.60	38.0	−4.561	<0.001
Total suffering	−2.0 (2.0)	16.75	−1.0 (2.0)	24.25	125.0	−2.083	0.037
FACIT-Sp-12	2.0 (2.0)	26.05	0.0 (0.8)	14.95	89.0	−3.194	0.001

IQR = Interquartile range, FACIT-Sp-12 = Functional Assessment of Chronic Illness Therapy Spiritual Well-Being; The 12 item Spiritual Well Being Scale, [#] from Mann-Whitney U test.

Relation to Existing Literature

The direction and pattern of our findings align with prior work on mindfulness- and gratitude-based interventions in patients with advanced illness.^{27,28} Our group previously showed that 7 days of mindful gratitude journaling reduced suffering and improved psychological and spiritual outcomes in adults with advanced cancer,¹⁰ and that a 5-minute mindfulness-of-love practice produced comparable short-term benefits in a similar inpatient population.¹³ The present trial extends that line of work in two ways. It shortens the gratitude format from a multi-day writing exercise to a single bedside session, and it directly attention-matches the active intervention against a conversational control delivered by the same clinician, which addresses the common criticism that apparent mindfulness effects may be driven by therapist presence alone.

The contrast with longer, well-established protocols is also worth naming. Managing Cancer and Living Meaningfully (CALM) therapy typically involves three to six sessions over several months,²⁹ and standard Mindfulness-Based Stress Reduction (MBSR) is an 8-week program.³⁰ These are effective, but attrition in advanced disease is high, and a nontrivial number of patients who enroll will not live or be well enough to complete them. A 5-minute bedside practice is not a substitute for these interventions; it sits in a different part of the workflow, as something that can be offered during a single encounter to a patient who is fatigued, dyspneic, or simply too ill for anything more demanding. Framed that way, the two approaches are complementary rather than competing.

Gratitude, we suspect, is a particularly tractable anchor for this kind of ultra-brief practice. Unlike open-monitoring mindfulness, which asks patients to sustain non-judgmental awareness of whatever arises—a demanding task when what arises is pain, fear, or nausea—gratitude provides a directed focus. The instruction is not to sit with whatever comes, but to turn, briefly, toward what is still worth noticing. For patients at the edge of their cognitive and physical reserve, that specificity appears to matter.

Limitations

Several limitations temper these findings. First, the trial was single-center and modestly sized. Although powered for its primary outcome, it cannot speak to subgroup effects or to durability. Second, the post-intervention assessment was performed immediately after the session by the same clinician who delivered it; some of the observed effect may reflect demand characteristics or an acute Hawthorne-type response,³¹ and we cannot know from these data how long the benefit persists. Third, blinding of patients and facilitators was not feasible, and outcome measures were self-reported, so response bias cannot be excluded. Fourth, although we used an attention-matched control, supportive listening is itself a therapeutic act in palliative care; the comparison is

therefore a conservative one against usual compassionate clinical contact rather than against no intervention. Fifth, randomization did not produce full baseline balance. The mindfulness-of-gratitude arm had higher education levels and better ECOG performance status, which may have facilitated engagement with the guided practice and potentially favoured the intervention. Conversely, the supportive-listening arm had higher baseline total suffering, which provided greater room for improvement and would not readily explain the larger reduction observed in the mindfulness-of-gratitude arm. Nevertheless, residual confounding cannot be excluded. Sixth, FACIT-Sp12 was designed to capture a relatively stable dimension of experience, and its responsiveness to a 5-minute intervention should be interpreted with appropriate caution; the shift we observed may reflect state-level affect as much as durable spiritual change. Finally, we did not assess effects on physical symptom burden, caregiver experience, or the patient-clinician relationship, each of which would be relevant to a full appraisal of the intervention's clinical value.

Clinical Implications

Taken with appropriate caution, the findings support offering a brief, structured mindfulness-of-gratitude practice as an adjunct—not an alternative—to routine palliative care. The practice takes 5 minutes, requires no equipment, and can be learned by clinicians from a written script. The short format suits palliative care patients who tire easily, struggle to concentrate, or have fluctuating symptoms, and for whom longer psychological or mindfulness interventions are often impractical. In resource-limited settings, where access to formal psycho-oncological or chaplaincy services is often constrained, this kind of micro-intervention is a plausible way to widen the range of tools available at the bedside. It is explicitly not a replacement for longitudinal psychological work with patients whose distress calls for it. Rather, it may complement supportive listening, psychology, and spiritual care as part of integrated clinical care. This brief format may also suit other settings where distress is high but time and patient capacity are short—for instance, before an anxiety-provoking procedure, for family caregivers during anticipatory grief, or as a brief pause for staff carrying cumulative clinical stress.

Future Directions

Several questions follow directly from this trial. As a first randomized evaluation of an ultra-brief gratitude practice in palliative inpatients, this study offers a starting point for further work on its mechanisms and best clinical use in serious illness. The durability of the effect beyond the immediate post-session window needs to be established, along with the optimal frequency of practice—whether repeated daily offerings compound or whether isolated sessions suffice. Multi-center studies in more diverse cultural and religious

populations would clarify whether the gratitude framing travels well across traditions; the construct is secular but was evaluated here in a Malaysian cohort with its own distribution of worldviews. Effects on physical symptoms, on caregiver burden, and on the patient–clinician therapeutic alliance warrant dedicated study. Finally, incorporating more objective or physiological markers of engagement, such as changes in heart rate variability or simple measures of present-moment attention, may help distinguish patients for whom the practice lands from those for whom it does not.

Conclusion

A single 5-minute mindfulness-of-gratitude practice reduced suffering and improved spiritual well-being in palliative care inpatients more than an attention-matched supportive-listening encounter of the same length. The intervention is brief, low-risk, and feasible at the bedside, and its effects are consistent with an immediate shift in attention rather than with prolonged skill accumulation. It does not replace existing psychological and spiritual care, but it may usefully extend what clinicians can offer to patients who have very little time and very little energy left.

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Ethical Considerations

Ethical approval was granted by the UMMC Medical Research Ethics Committee (MREC 2017917-5573).

Consent to Participate

All participants provided informed written consent before enrolment.

Authors Contributions

All authors contributed equally to the conception and design of the study, data acquisition, data analysis and interpretation, drafting of the article, and critically revising it. All authors made final approval of the version to be published. All authors agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of the work are appropriately investigated and resolved.

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Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Data Availability Statement

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

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