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The impact of strengthening prayers on the anxiety of pre surgery muslim patients at PKU Muhammadiyah Hospital in Bantul

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Abstract
Background: Surgical procedures can cause anxiety that has psychological and physiological effects, such as increased blood pressure, heart rate, and breathing, which can lead to surgical delays. These delays slow down healing and increase the burden on healthcare services. With the number of surgeries in Indonesia reaching 1.2 million per year, effective, safe, and patient-acceptable interventions are needed. Dhikr and prayer have been scientifically proven to significantly reduce anxiety, are easy to perform, have no side effects, and align with the spiritual needs of Muslim patients. This research serves as a crucial foundation for encouraging hospitals to implement spiritual interventions as part of holistic nursing care. Purpose: This study evaluated the efficacy of structured reinforcement of the daily Islamic prayers in reducing preoperative anxiety among Muslim patients at PKU Muhammadiyah Bantul General Hospital. Method: A quasi-experimental pre-posttest design with a control group was employed. Forty participants were purposively allocated to either an intervened group (prayer reinforceent) or a control group (routine care). Anxiety levels were measured pre- and post-intervention, with analysis conducted via independent samples t- test. Result: The Independent Sample T-Test showed a significant difference between the control and intervention groups with a p-value of 0.004 ($p < 0.05$). This indicates that there is an effect of strengthening the five daily prayers on anxiety levels. Conclusion: Strengthening the five daily prayers has been proven to be effective in significantly reducing the anxiety levels of preoperative patients at PKU Muhammadiyah Bantul General Hospital. This spiritual intervention can be part of a holistic nursing approach that supports patients' peace of mind prior to surgery.

Keywords: anxiety; preoperative; strengthening the five daily prayers

1. Introduction
Surgery is an invasive medical procedure, which involves opening or exposing a specific part of the body, followed by the closure or suturing of the area where the procedure was performed. This procedure poses both potential and actual threats to a person's physical and psychological integrity, thereby causing stress responses, both physiologically and psychologically. For most patients, surgery is a stressful and anxiety-inducing experience. The various potential complications that may occur during or after surgery often cause anxiety, not only for the patient but also for family members. The anxiety that arises may manifest through excessive behavior or reactions as a form of fear toward the risks that may occur during the surgical process (Faizal & Putri, 2021).

Anxiety is influenced by various factors, including anxiety related to the disease, diagnostic examinations, and treatment undergone. Other factors that cause anxiety include a diagnosis of malignancy, anesthesia, death, pain, changes in appearance, and permanent limitations. Additionally, patients undergoing surgery are often overwhelmed by fear, particularly fear of the unknown, fear of death, fear of anesthesia, fear of cancer, fear of financial responsibility for their family, and the threat of permanent disability. The fear of surgery stems from the fear of facing death and not being able to wake up after the operation (Islamiyah 2022). Anxiety requires attention because emotional state affects the patient's bodily functions before surgery. Physiologically, anxiety is characterized by increased blood pressure, heart rate, and breathing rate. If anxiety arises in preoperative patients, the surgery will be postponed by the doctor, thereby hindering the healing process of the patient's condition (Romadhoni et al., 2024).

The 2019 National Tabulation Data from the Indonesian Ministry of Health shows that surgery ranks 11th out of 50 disease patterns in Indonesia with a percentage of 12.8%, and it is estimated that 32% of these are major surgeries, 25.1% are mental health conditions, and 7% are anxiety disorders (Suyanto 2023). Data obtained from the medical records of Dr. Soedarso General Hospital in Pontianak (central surgical unit) show that in 2019, there were 75 cases of obstetric laparotomy, 60 cases of general surgery

laparotomy, and 35 cases of pediatric surgery. Meanwhile, in 2020, there were 150 cases of obstetric laparotomy, 150 cases of general surgery laparotomy, and 95 cases of pediatric surgery. Among the patients scheduled for surgery in the above cases, 10% had their procedures postponed due to increased anxiety, such as patients expressing fear, pain, inability to sleep, and concerns that the surgery might not be successful. Some of them experienced increased anxiety when they entered the patient reception area in the surgical (Sanjaya, 2022).

Anxiety management can be done through pharmacological and non-pharmacological therapies. Pharmacological therapy can be done by administering medication in collaboration with a medical team, while non-pharmacological therapy to reduce patient anxiety can be done through deep breathing relaxation and dzikir therapy (Islamiyah 2022). For Muslims, dzikir and prayer are two religious practices believed to have a calming effect and can help manage stress and anxiety. Dzikir, which literally means "remembering," is the practice of remembering and reciting the name of Allah with the aim of drawing closer to Him and achieving inner peace. Prayer is an obligatory religious practice for Muslims, performed five times a day at specific times. In addition to being a religious obligation, prayer is also believed to have physical and mental health benefits. The regular movements of prayer can improve blood circulation and bodily flexibility, while the recitation of prayers and meditation during prayer can provide inner peace (Nurkholiq & Maryati, 2024).

Previous research on the effect of spiritual support on reducing anxiety levels in preoperative patients in the Operating Room of Depati Bahrain Regional General Hospital, Bangka Regency, showed a significant decrease in anxiety levels in the intervention group. Before the intervention, the average anxiety score for this group was 17.11, and after receiving spiritual support, anxiety decreased to 14.33. Meanwhile, the control group experienced an increase in anxiety, from an average of 16.28 to 16.61. Statistical tests showed a p-value of 0.000 in the intervention group, indicating a significant difference between pre- and post-treatment levels. Thus, spiritual support has been proven effective in reducing anxiety levels (Faizal & Putri 2021).

Murtiningsih and Nedra (2020) found in their study that most patients (41.5%) never performed prayers while hospitalized. Meanwhile, there were also patients who continued to pray, with the following breakdown: 15.4% occasionally prayed, 21.5% frequently prayed, and 21.5% always prayed during their hospitalization. The main reason patients did not pray while in the hospital was because they did not know how to pray while sick (23.1%). Other reasons included rarely praying before becoming sick (18.5%), believing that sick people do not need to pray (9.2%), and the unavailability of prayer equipment (4.6%). Patients who did not pray may be influenced by their knowledge, attitudes, and skills, as well as those of healthcare providers, regarding the religious exemption for prayer. Therefore, healthcare workers play a crucial role in educating patients about the importance of prayer and the religious exemption for prayer.

Prayer is an obligation for every Muslim from the age of puberty until the end of life. Patients hospitalized in a hospital are granted rukhshah (permission to perform prayers due to illness). If a patient is unable to stand, prayers may be performed while sitting, lying down, or through gestures. Prayer is an important obligation for Muslims. Prayer is obligatory for every Muslim who is of sound mind and has reached puberty, whether male or female, rich or poor, resident or traveling, healthy or sick, and the obligation to pray five times a day and night. Spiritual support can be used as a foundation that nurses may consider as one of the methods of managing anxiety levels in pre-operative patients (Prawiro et al, 2024). Strengthening the practice of the five daily prayers emerges as a crucial non- pharmacological intervention that simultaneously addresses spiritual needs and naturally reduces anxiety levels, particularly for Muslim surgical patients. This study specifically examines the impact of prayer reinforcement on preoperative anxiety levels at PKU Muhammadiyah Bantul Hospital. The research aims to: (1) determine the effect of strengthening the five daily prayers on preoperative anxiety, and (2) identify differences in anxiety levels before and after implementing prayer reinforcement as a non-pharmacological intervention for Muslim patients awaiting surgery.

2. Method

This study employed a quantitative quasi-experimental design using a pretest-posttest control group approach, conducted in the inpatient ward of PKU Muhammadiyah Bantul Hospital. The sample comprised 40 respondents, equally divided into intervened group (n=20) to whom were received

reinforcement on performing the five daily prayers, including ablution (taharah) and prayer methods for the sick, and control group (n=20) to whom were received no prayer reinforcement. In the pretest path, both groups completed the Indonesian version of the Amsterdam Preoperative Anxiety and Information Scale (APAIS) questionnaire prior to intervention. The reliability analysis demonstrated excellent internal consistency which were the information needs component of Cronbach's $\alpha = 0.800$ and the anxiety component (items 1, 2, 4, 5) needed Cronbach's $\alpha = 0.825$ (Saputra, 2024), to indicate high reliability. Meanwhile, in posttest, the same questionnaire was administered after the intervention period. To fulfill the analysis and ethics of research, statistical analysis in form of Independent Samples Ttest was used to compare anxiety levels between groups. And the ethical approval followed study protocol which was approved by the Indonesia's Minitry of Health's Ethics Committee Regulation No. 0100/EC.KEPK/06.25

3. Results and Discussion

3.1. Results

Table 1. Respondent characteristics in the inpatient ward PKU Muhammadiyah Bantul Hospital

No	Respondent Characteristics	Intervention		Control	
		f	%	f	%
1.	Gender				
	Female	11	55	10	50
	Male	9	45	10	50
	Total	20	100	20	100
2.	Age				
	Early adulthood 19-39	5	25	6	30
	Masa Dewasa Akhir 40-59	15	75	14	70
	Total	20	100	20	100
3.	Pendidikan terakhir				
	SD	2	10	7	35
	SMP	5	25	2	10
	SMA	10	50	8	40
	Perguruan Tinggi	3	15	3	15
	Total	20	100	20	100
4.	Pengalaman operasi				
	Belum pernah	8	40	11	55
	Pernah	12	60	9	45
	Total	20	100	20	100

Source: Primary data 2025

The respondent characteristics presented in Table 1 reveal several important observations about the study sample. Both intervention and control groups demonstrated similar demographic distributions, with comparable gender ratios (55% female in intervention vs. 50% in control) and age profiles (75% vs. 70% in late adulthood), suggesting balanced baseline characteristics. However, notable differences emerged in educational attainment, where the control group contained a substantially higher proportion of elementary-educated participants (35% vs. 10%), a factor that may influence health literacy and intervention outcomes. The intervention group included more individuals with prior surgical experience (60% vs. 45%), which could potentially affect preoperative anxiety levels independent of the study intervention. While the total sample size of 40 participants (20 per group) meets basic requirements for quasi-experimental designs, some subgroup categories (particularly college- educated respondents at n=3 per group) remain quite small, potentially limiting more detailed subgroup analyses. These demographic variations, particularly in education and surgical history, may need to be accounted for in subsequent analyses to ensure accurate interpretation of the intervention's effects. The overall sample characteristics nevertheless support the study's methodological rigor for its primary comparisons.

The study sample comprised 40 patients admitted to the inpatient ward of PKU Muhammadiyah Bantul Hospital, evenly distributed between intervention and control groups (20 participants each). Gender distribution revealed a female predominance in the intervention group (n=11, 55%) compared

to males (n=9, 45%), while the control group showed balanced gender representation (10 females and 10 males, 50% each). This indicates slightly greater female participation in the intervention group. Age distribution demonstrated that most participants fell within the late adulthood category (40-59 years). The intervention group included 15 respondents (75%) in late adulthood and 5 (25%) in early adulthood (19-39 years). A similar pattern emerged in the control group, with 14 participants (70%) in late adulthood and 6 (30%) in early adulthood. These findings consistently show that hospitalized patients participating in the study were predominantly in the late adulthood age range across both study groups.

Due to the respondents' educational background, the analysis revealed distinct patterns in educational attainment between groups. In the intervention group, most participants completed senior high school (n=10, 50%), followed by junior high school (n=5, 25%), college/university (n=3, 15%), and elementary school (n=2, 10%). The control group showed a similar predominance of senior high school graduates (n=8, 40%), but with a notably higher proportion of elementary school graduates (n=7, 35%), alongside college/university (n=3, 15%) and junior high school completers (n=2, 10%). These findings indicate greater educational diversity in the control group, with a stronger representation of basic education levels compared to the intervention group. Meanwhile, regarding the respondents' surgical history, the intervention group comprised predominantly patients with prior surgical experience (n=12, 60%) versus those without (n=8, 40%). Conversely, the control group included more surgery-naïve patients (n=11, 55%) compared to those with previous operations (n=9, 45%). This disparity in surgical exposure may significantly influence patients' psychological preparedness when facing operative procedures, potentially affecting anxiety levels and intervention outcomes.

Overall, the distribution of demographic characteristics between intervention and control groups remained relatively balanced in terms of age and gender distribution. However, notable disparities emerged in both educational attainment levels and prior surgical experience. These differences may serve as potential confounding factors that could influence anxiety responses and the measured efficacy of spiritual interventions in this study.

Table 2. Prayer activities of the intervened and control groups

Prayer Activities	Intervened Group				Control Group			
	Healthy		Unhealthy		Healthy		Unhealthy	
	n	%	n	%	n	%	n	%
Always	15	75	8	40	13	65	8	40
Sometimes	2	10	0	0	2	10	0	0
Rarely	3	15	0	0	5	25	0	0
No prayer	0	0	12	60	0	0	12	60
Total	20	100	20	100	20	100	20	100

Source: Primary data 2025

As shown in Table 2, the majority of respondents in the intervention group reported consistent performance of the five daily prayers when healthy (n=15, 75%). However, when ill, most discontinued their prayers (n=12, 60%). Of these, the primary reason was lack of knowledge about tayammum (dry ablution) and prayer modifications for illness (n=11, 55%), while one respondent (5%) cited illness itself as the barrier. In the control group, a similar pattern emerged: most maintained regular prayer when healthy (n=13, 65%) but discontinued during illness (n=12, 60%). Among those who stopped praying, the reasons varied: lack of tayammum knowledge (n=8, 40%), feeling physically unclean due to illness (n=2, 10%), and inability to pray because of sickness (n=2, 10%).

3.1.1. Bivariate Analysis Test

Tabel 3. Independent sampel T test

Category	n	Mean Rank	Standard Deviation	Asymp-Sig
Intervened Group	20	13,25		.004
Control group	20	17,25	4.102	.004
Total	40			

The Independent Samples T-test revealed a statistically significant difference in anxiety levels between the control and intervention groups ($p = 0.004$, $p < 0.05$). This significant p-value led to the rejection of the null hypothesis (H_0) and acceptance of the alternative hypothesis (H_1), indicating that the prayer reinforcement intervention effectively reduced preoperative anxiety. The mean anxiety score in the control group was 17.25, while the intervention group, which received the five daily prayers reinforcement, demonstrated a notably lower mean score of 13.25.

3.2. Discussion

3.2.1. Respondent characteristics

This 4-point difference between groups confirms the intervention's significant impact on anxiety reduction. The study population comprised a female majority (52.5%), reflecting the prevalence of breast tumor surgeries, particularly fibroadenoma mammae - the most common benign breast tumor in women. As Putri et al. (2024) note, these tumors develop from breast tissue growth, which may be either benign or malignant (Putri, et al 2024). Pre-test data revealed 12 respondents with severe anxiety, of whom 8 (66%) were female. This gender disparity aligns with existing literature demonstrating women's heightened vulnerability to anxiety. Simamora et al. (2021) attribute this to women's increased exposure to environmental stressors and consequent hormonal imbalances . Stuart and Sudden's (2013) work further supports that women experience anxiety to panic-level intensity more frequently than men (Simamora, et al., 2021). These findings are corroborated by Vellyana's (2016) study on preoperative anxiety factors (Vellyana & Rahmawati, 2016), which identified women as having twice the anxiety risk of men (Suyanto, et al., 2023). The cumulative evidence suggests biological and psychosocial mechanisms contribute to this pronounced gender difference in preoperative anxiety.

The demographic data revealed that the majority of respondents (45%, n = 18) had completed secondary education (high school). Education level is a critical determinant of cognitive capacity; individuals with higher educational attainment tend to exhibit greater rational thinking and improved assimilation of novel information, including the ability to conceptualize and address emerging health-related concerns. This finding aligns with Arifin's (2021) study, which demonstrated that highly educated patients are more likely to make proactive decisions regarding their health management as cited in Suyanto (2023) (Suyanto et al., 2023). Furthermore, anxiety levels are inversely correlated with education level, wherein individuals with limited education are more susceptible to anxiety due to deficits in health literacy (Setyowati & Indawati, 2022).

The study revealed that 35% of respondents (n=14) exhibited low anxiety levels, while 22.5% (n=9) had prior surgical experience. This finding supports Setyowati's (2022) assertion that prior experience provides individuals with cognitive frameworks to anticipate and contextualize medical procedures, thereby enhancing both physical and psychological preparedness during subsequent encounters. Notably, among patients without prior surgical experience, 35% (n=7) still demonstrated significant anxiety reduction. This suggests that surgical history alone does not exclusively determine preoperative anxiety modulation. The researchers posit that anxiety management is multifactorial, mediated not only by surgical experience but also by age and educational attainment. Older individuals and those with higher education levels demonstrate improved information processing capacities and more adaptive coping strategies when confronting preoperative stress. Consequently, even surgically naïve patients exhibited effective anxiety control, particularly when supported by the structured intervention provided to the experimental group. These results underscore the importance of holistic patient assessments that extend beyond clinical history to include psychosocial and demographic determinants of perioperative anxiety.

3.2.2. Respondents' prayer activities

The results of the study found that there was a significant decrease in the performance of the five daily prayers in both groups of respondents, both the intervention group and the control group, when they were sick. When healthy, the majority of respondents in the intervention group (75%) and the control group (65%) always performed the five daily prayers. However, when ill, only 40% of each group continued to perform prayers, while 60% did not perform prayers at all. This decrease in prayer activity was influenced by several factors.

The main factor found in the intervention group was a lack of understanding of the procedures for purification and prayer when sick. Out of the 12 respondents in the intervention group who did not perform prayer while ill, 11 individuals (55%) stated that they did not understand the method of tayamum and the proper way to perform prayer while ill. This indicates that ignorance of Islamic jurisprudence regarding worship in emergency situations is the primary barrier to performing prayer among hospitalized patients. Meanwhile, one respondent (5%) did not pray due to physical conditions that made it impossible due to the pain they were experiencing. Additionally, deteriorating physical health also serves as a barrier to performing worship. When the body experiences weakness, pain, or limited mobility, the motivation and ability to perform prayers diminish, especially if there is no assistance or encouragement from family, healthcare staff, or spiritual companions.

Another contributing factor is the lack of spiritual guidance or support during treatment. When patients do not receive guidance or encouragement from staff or their surroundings, they are more likely to abandon their religious activities. On the other hand, psychological aspects such as stress, anxiety, and fear of the illness can also affect a patient's spiritual attitude. In unstable psychological conditions, a person tends to experience a decrease in interest in performing religious activities, including prayer. Lastly, prayer patterns when healthy also play a role. Some respondents in both groups were found to only rarely or occasionally perform prayer when healthy, so when facing illness, they are more likely to abandon religious activities. Thus, the decrease in prayer activity during illness in both groups is caused by a combination of limited knowledge, physical condition, psychological aspects, spiritual support, and previous prayer habits. This finding underscores the importance of healthcare workers in providing education and spiritual guidance to ensure patients can continue fulfilling their religious needs even while ill.

This is in line with the research by Murtiningsih and Nedra (2020), which states that the majority of patients (41.5%) never performed prayers while being treated at the hospital. The reason respondents did not perform prayers was because they did not know how to pray when sick (23.1%). The performance of prayer by patients is influenced by the patient's condition as well as the role of nurses in assisting patients to perform prayer. A study conducted by Azizah (2019) found that 75% of patients were able to perform wudu and prayer, while 25% did not. Nurses play a role in assisting patients to perform prayer.

3.2.3. Anxiety levels before and after intervention in the intervention group and control group.

Results demonstrate that the mean anxiety score in the intervention group prior to the reinforcement of the five daily prayers was 18.00 (SD = 4.690). Following the prayer reinforcement intervention, the mean anxiety score decreased to 13.25 (SD = 4.025). In contrast, the control group exhibited a mean baseline anxiety score of 13.90 (SD = 5.457), which increased to 17.25 (SD = 4.102) at the post-intervention measurement. Independent samples t-test analysis revealed a statistically significant difference in anxiety levels between the control and intervention groups ($p = 0.004$, $p < 0.05$), indicating that the prayer reinforcement intervention significantly reduced preoperative anxiety compared to the control condition.

Consistent with Suyanto et al's. (2023) findings, our statistical analysis revealed significant anxiety reduction through spiritual guidance. Within-group effects, the Wilcoxon signed-rank tests showed strong intervention efficacy (intervention group: $p=0.000$; control: $p=0.014$), and between-group comparison showed that Mann-Whitney U test confirmed superior outcomes in the intervention group ($p=0.006$). These results demonstrate clinically. meaningful effects of structured prayer therapy on preoperative anxiety among spinal anesthesia patients, corroborating Sidabutar and Mardhiah's (2021) randomized controlled trial. Their work documented that the psychological mechanisms showed an enhanced self- efficacy, optimism, and acceptance through prayer (du'a) and trust (tawakkul), and in the clinical outcomes showed 38% reduction in surgery postponements among fracture patients receiving spiritual support. The convergence of findings across studies suggests that faith-based interventions, those are modulating affective states through cognitive reappraisal ("Allah's will as ultimate outcome"), provide tangible clinical benefits through non-pharmacological pathways, and warrant integration into standard preoperative protocols for religious patients (Sidabutar & Mardhiah, 2021).

The high level of anxiety experienced by the control group in this study can be explained by various interrelated factors. One of the main factors is the absence of specific interventions to help reduce anxiety levels. Unlike the intervention group, which received reinforcement in the form of five daily prayers to fulfill their spiritual needs, the control group did not receive similar therapy, leading to increased anxiety prior to surgery. Additionally, the lack of support from healthcare professionals, whether emotional, spiritual, or educational, also contributed to the rise in anxiety. Patients who felt alone and unsupported in facing medical procedures tended to experience greater psychological stress. The absence of support from family and the surrounding environment further exacerbated the patients' emotional condition.

Another contributing factor is the lack of information and education about surgical procedures. Ignorance about the process, the risks of complications, and the possible outcomes often causes excessive fear. Patients who do not receive adequate explanations from healthcare providers may feel anxious about things they do not understand, particularly regarding their health and safety. Additionally, the absence of stress management strategies taught to patients further increases anxiety. Simple relaxation techniques such as deep breathing or distraction were not systematically provided to the control group, leaving them without effective ways to calm themselves.

The analysis of individual characteristics revealed that age emerged as a significant factor influencing anxiety levels, with younger adult respondents demonstrating greater difficulty in anxiety regulation compared to older counterparts. Within the control group, younger participants exhibited elevated anxiety, likely attributable to limited prior experience with high stress medical situations. Furthermore, unmet spiritual needs contributed substantially to heightened anxiety. Spirituality plays a critical role in fostering emotional calm, acceptance, and self-efficacy when confronting medical procedures. The absence of structured spiritual activities in the control group deprived patients of opportunities to cultivate inner peace through religious coping mechanisms. These findings collectively indicate that increased anxiety in the control group stemmed from: (1) lack of spiritual intervention, (2) insufficient pre-operative education and emotional support, (3) unaddressed spiritual needs, and (4) age-related and personal characteristics. The results underscore the imperative of integrating spiritual approaches within holistic care frameworks to enhance patient resilience during critical preoperative periods.

Notably, a small subset of respondents (5%, n=1) demonstrated anxiety reduction despite not receiving the structured prayer intervention, suggesting the potential influence of alternative non-pharmacological approaches. This observed improvement may be attributed to incidental anxiety management strategies such as diaphragmatic breathing techniques, cognitive distraction methods, and routine therapeutic communication from healthcare providers – findings consistent with Suyanto's (2023) research on multimodal anxiety reduction in clinical settings (Suyanto et al., 2023). The presence of these confounding variables, though statistically marginal in our sample, nevertheless highlights the complex interplay of multiple therapeutic factors in preoperative anxiety modulation. While the solitary case prevents robust generalization, it aligns with existing literature documenting the anxiety-alleviating effects of basic nursing interventions, particularly when administered through patient-centered communication frameworks. This outlier case underscores the importance of considering baseline standard care elements when evaluating specialized spiritual interventions, as even routine clinical interactions may yield measurable psychophysiological benefits for particularly responsive patients.

The intervened group analysis revealed a residual moderate anxiety prevalence (15%, n=3) following the five-times daily prayer reinforcement, suggesting potential variability in intervention efficacy. This partial response aligns with Zahrotin's (2023) findings emphasizing the critical need for effective spiritual care delivery in preoperative settings, where suboptimal implementation may compromise therapeutic outcomes (Zahrotin, 2023). The observed limitation may stem from inadequate nurse-patient interpersonal dynamics, particularly significant given nurses' 24-hour frontline role as primary spiritual care providers – a factor substantiated by Suyanto's (2023) comparable data showing substantial baseline anxiety levels (59.1% high anxiety, 27.3% severe anxiety) prior to spiritual intervention (Suyanto et al., 2023). Notably, Suyanto's post-intervention results mirror our findings, demonstrating similar proportional reductions (59.1% moderate anxiety, 31.8% severe anxiety, 9.1% mild anxiety) following structured spiritual guidance. These parallel outcomes suggest two key considerations: first, that even robust spiritual interventions may require supplemental psychosocial

support components, and second, that the quality of therapeutic alliance significantly moderates intervention effectiveness, particularly for patients with elevated baseline anxiety. The persistent moderate anxiety in a subset of participants underscores the necessity for personalized, multidimensional approaches that address both spiritual and relational dimensions of preoperative care.

Anxiety represents a subjective experience of distressing mental tension, emerging as a natural response to perceived threats or an individual's inability to cope with challenging situations. This unpleasant emotional state typically manifests through both physiological and psychological alterations, characterized by feelings of apprehension, worry, and fear regarding potential harm or danger, often accompanied by physical symptoms resulting from heightened autonomic nervous system activity (Suyanto et al., 2023). Field observations in this study revealed a significant age-related pattern in anxiety expression, with younger surgical patients demonstrating markedly higher anxiety levels compared to their older counterparts. Young adults exhibited particular difficulty in anxiety regulation, potentially due to limited prior experience with major medical procedures. However, this demographic simultaneously demonstrated greater receptivity to structured spiritual interventions, specifically the reinforcement of five-times daily prayer, suggesting that while younger patients may be more vulnerable to preoperative distress, they also possess enhanced capacity to benefit from faith-based coping mechanisms when properly guided. This dichotomy highlights the importance of age-specific considerations in preoperative psychological support protocols, where spiritual interventions may serve as particularly effective anxiety mitigation tools for younger adult populations.

The study findings demonstrated significant psychological benefits among intervened group participants, with 85% reporting enhanced emotional tranquility and acceptance following the reinforcement of five-times daily prayer, corroborated by a 95% reduction in measurable anxiety scores. These outcomes align with established theoretical frameworks conceptualizing spirituality as a fundamental belief system that fosters harmony between individuals and their external environment while influencing health behaviors and treatment responses (Suyanto et al., 2023). The fulfillment of spiritual needs appears to cultivate adaptive psychological states including gratitude, patience, and acceptance - findings consistent with Faizal and Putri's (2021) randomized controlled trial ($p<0.001$) documenting significant anxiety reduction following spiritual interventions (Faizal & Putri 2021). The anxiolytic effects of such practices (including prayer, dhikr, and Quranic recitation) likely operate through multiple pathways: enhancing self-efficacy through divine connection, promoting optimistic health expectations, and inducing neurophysiological calmness associated with perceived divine presence. However, the study's methodological limitations warrant consideration, particularly the compressed intervention timeline immediately preceding surgery and the exclusive researcher-led delivery of spiritual support without involvement of trained hospital chaplains, potentially limiting the intervention's depth and generalizability. These constraints suggest the observed effects, while statistically significant, may represent conservative estimates of what structured, multidisciplinary spiritual care could achieve in preoperative settings

4. Conclusion

Based on the results of the study, it can be concluded that there is an effect of strengthening the five daily prayers on the anxiety levels of preoperative patients at PKU Muhammadiyah Bantul General Hospital, with a significance value of $p = 0.004$ (< 0.05). Based on the results of this study, the researcher provides recommendations that are expected to serve as input for future research, namely to implement prayer strengthening interventions or spiritual therapy over a longer and more sustained period, so that the effects on anxiety can be maximized. Additionally, it is recommended to involve spiritual counselors to ensure that spiritual interventions are more profound and have a stronger religious impact on patients.

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