



RESEARCH ARTICLE

Murottal Therapy Reduce the Level of Anxiety in Patients Pre Operating Sectio Caesarea in Klaten Islamic General Hospital

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ABSTRACT

Pregnant individuals undergoing cesarean section surgery (sectio caesarea) elicit heightened anxiety levels, which can have physiological effects such as increased heart rate, blood pressure, and uterine contractions and potentially impact the mother's and fetus's well-being. To address preoperative anxiety in sectio caesarea patients, a study aimed to investigate the impact of murottal therapy at Klaten Islamic General Hospital. This research employed an experimental design with a single-group pretest-posttest approach. The study population consisted of 45 patients who underwent sectio caesarea at the Islamic Hospital of Klaten, selected using consecutive sampling. The PASS questionnaire was utilized as the assessment tool, and data analysis was performed using the Wilcoxon test. The respondents had an average age of 27.52 years, with the majority being housewives (51.1%), having a high school education (53.3%), and being primigravidas (75.6%). Before receiving murottal therapy, the preoperative sectio caesarea patients exhibited moderate anxiety (48.9%). After undergoing murottal therapy, anxiety decreased to 37.8%, with an increase in the number of individuals who did not experience anxiety, rising from 11.1% to 26.7%. In conclusion, murottal therapy had a significant effect on reducing anxiety levels in preoperative sectio caesarea patients at the Klaten Islamic General Hospital (p -value = 0.001).

INTRODUCTION

Childbirth is a profoundly significant event in a woman's life, and its significance varies for each individual. In the absence of prior experience, it can lead to heightened levels of anxiety and concern during the delivery process. This phenomenon is commonly observed in first-time mothers.

Childbirth means expelling the fully developed fetus and placenta from the womb through the birth canal or other means, either with or without assistance (self-powered). It can be accomplished through various

methods, including vaginal delivery (normal), vacuum extraction, forceps delivery, or caesarean section (Ljung et al., 1994).

A Caesarean section, a frequently performed surgical procedure worldwide, involves delivering the fetus through an incision made in both the abdominal wall (laparotomy) and the uterine wall (hysterotomy) (Ljung et al., 1994). This intervention is carried out to mitigate the risks of maternal and fetal mortality associated with complications that may arise during vaginal delivery (Dewi and Sunarsih, 2020).

According to the Basic Health Research findings in 2018, the prevalence of caesarean births in Indonesia was 9.8%, with the highest rate recorded in D.K.I. Jakarta at 19.9% and the lowest in Southeast Sulawesi at 3.3%. West Java had a caesarean section rate of 8.8%. In Central Java Province, hospital records indicated 5,222 cases of caesarean sections in 2018. In Klaten Regency, 2.91% of caesarean operations were performed due to abnormalities and 0.05% due to patient requests.

Patients undergoing caesarean sections may experience psychological issues, including fear and anxiety. This is primarily attributed to concerns about potential patient and baby outcomes.

Anxiety is an affective disorder characterized by excessive and persistent fear or worry. Nearly all psychiatric disorders entail anxiety symptoms (Andersson et al., 2003; Novilasari et al., 2022; Dehaghi et al.; 2020). Various factors influence anxiety during labour, including the mother's experience, knowledge, age, and occupation. Insufficient knowledge or expertise regarding caesarean sections increases the risk of anxiety.

Anxiety disorders pose a risk to the patient's overall health. The anxiety experienced can elevate heart rate and blood pressure, potentially exacerbating the patient's condition, particularly for those undergoing surgery. Physiological changes resulting from anxiety include increased blood pressure, an elevated pulse rate, palpitations, reduced pulse pressure, shock, and other symptoms. The respiratory system may exhibit rapid and shallow breathing, chest tightness, and a sense of suffocation (Alvi et al., 2022; Celano et al., 2016).

The adverse effects of anxiety on patients undergoing caesarean sections include uterine contractions, elevated maternal blood pressure and heart rate, and an increased fetal heart rate. If a mother experiences high anxiety levels before surgery, the potential risks to the mother and the fetus are heightened.

Efforts to reduce anxiety in patients, particularly those preparing for surgery, can be approached through pharmacological and non-pharmacological treatments. Pharmacological approaches involve administering prescribed medications, while non-pharmacological methods can be implemented in a hospital or maternity clinic during treatment. Non-

pharmacological treatments for anxiety encompass relaxation techniques, music therapy, murottal therapy (recitation of the Qur'an), and aromatherapy. Murottal therapy involves listening to reciting holy verses from the Qur'an, which have rhythmic patterns and positively impact patients. Eskandari et al. (2012) suggests that listening to accurately and beautifully recited verses of the Qur'an can bring peace of mind. The recitation of the Qur'an contains elements of the human voice, which is an extraordinary instrument of healing.

The holy book Al-Qur'an encompasses various terminologies, including *As-Syifa*, which signifies its medicinal properties in addressing physical and metaphysical ailments. Al-Qur'an can alleviate non-physical afflictions, such as emotional distress, anxiety, and melancholy. The mechanism involves the vibrational resonance of Quranic recitation penetrating the auditory region and subsequently being relayed to the emotional memory storage area, a system that influences emotions and behaviours. This specific brain region functions as a cognitive processor, assimilating and processing incoming data and information. The rhythmic patterns perceived in this region have a tranquillizing impact on the body.

Ahmad Al-Qadii, the Director of Islamic Medicine at the Institute for Education and Research in Florida, United States, is one expert who has supported the efficacy of murottal therapy in accelerating healing. Dr. Al-Qadii presented his research findings on the physiological and psychological influence of the Qur'an on humans. The outcomes of his study demonstrated a significant positive effect of listening to the sacred verses of the Qur'an on reducing nervous tension. These results were documented quantitatively and qualitatively through assessments based on mental health instruments (Zubaidilah et al., 2020).

Further support for these findings is provided by research conducted by Ismayanti et al. (2021), which revealed a significant difference in average anxiety levels before and after murottal therapy ($p < 0.000$). Similarly, research indicated a notable impact of murottal Al-Qur'an therapy on the anxiety levels of preoperative patients.

A preliminary study conducted at the Klaten Islamic General Hospital in November 2021 examined 2,194

patients who had undergone normal deliveries between November 2020 and October 2021. Among them, 949 deliveries involved cesarean sections, with 592 patients undergoing their first cesarean section and 357 patients receiving their second.

The Klaten Islamic Hospital includes an Islamic spiritual department dedicated to praying for and supporting patients. Patients undergoing pre-cesarean sections at R.S.I. Klaten is provided with religious guidelines containing prayers and advice. The aim is to offer support, alleviate anxiety, and prepare patients for the procedure. This continuous pastoral support is facilitated by the hospital's spirituality department.

Additionally, nurses at the hospital play a role in reducing anxiety by providing health education on the pre-, intra-, and post-operative phases of the cesarean section. This educational approach enhances patients' understanding of the upcoming procedure, alleviating psychological concerns such as anxiety and a lack of knowledge. Regarding murotal rhythm, the Klaten Islamic Hospital employs central loudspeakers that broadcast recitations to all hospital residents. Murotal sessions are conducted in the morning and evening. Based on interviews with 10 participants scheduled for a cesarean section, 7 mothers reported experiencing excessive anxiety accompanied by difficulties sleeping, frequent urination, and concerns about post-operative complications. Until now, the spiritual department has primarily addressed anxiety through prayers and guidance based on Islamic teachings without implementing murotal therapy. Given these circumstances, the researcher is motivated to investigate "The Effect of Murottal Therapy on Reducing Anxiety Levels in Preoperative Sectio Caesarea Patients at the Klaten Islamic General Hospital."

LITERATURE REVIEW

Anxiety is a common emotional response when pregnant people undergo cesarean section surgery (sectio caesarea). High levels of preoperative anxiety can have physiological effects, potentially impacting the mother's and fetus's well-being. This expanded literature review aims to explore the effectiveness of murottal therapy in reducing anxiety levels in patients undergoing sectio caesarean sections at Klaten Islamic

General Hospital.

Anxiety in patients undergoing sectio caesarea

Research has consistently shown that the prospect of surgery can induce anxiety in individuals, and pregnant women are particularly susceptible to heightened anxiety levels during the perioperative period. Anxiety in these patients can lead to increased heart rate, blood pressure, uterine contractions, and potential adverse effects on the mother and fetus. Therefore, interventions are needed to address preoperative anxiety in section caesarean patients.

Murottal therapy

Murottal therapy is a form of therapeutic intervention that involves listening to the recitation of the Holy Quran, typically performed by a professional reciter. This therapy is commonly used in Islamic cultures and has been found to have a calming and soothing effect on individuals. The recitation of the Quran is believed to invoke a sense of peace and tranquillity, potentially reducing anxiety levels.

Effectiveness of murottal therapy in anxiety reduction

Several studies have explored the effectiveness of murottal therapy in reducing anxiety levels in various populations. For instance, a study by Alivian et al. (2022) aimed to assess the effectiveness of murottal therapy and prayer in reducing anxiety and sleep problems in the elderly. The study involved 60 elderly participants from Pamijen Village, randomly divided into a murottal group (30 participants) and a prayer group (30 participants). A questionnaire measured anxiety levels and sleep disruptions before and after the treatment. Statistical analysis revealed significant improvements in sleep patterns for both groups ($p = 0.00$), indicating the efficacy of murottal therapy in reducing anxiety and sleep disturbances.

Similarly, a study conducted by Herdiana et al. (2021) found that recitation of the Qur'an and deep breathing exercises improve oxygen saturation and reduce anxiety levels in congestive heart failure (CHF) patients. The intervention group showed better results compared to the control group. Further research with larger sample sizes and better control over medical therapy is recommended.

Murottal therapy in preoperative settings

Although limited research has focused on murottal therapy in preoperative settings, some studies

have examined the impact of similar interventions on anxiety reduction. For example, a study by de Witte et al. (2022) explored that music therapy is increasingly used for stress reduction in medical and mental healthcare. It involves specialized interventions run by licensed music therapists. A meta-analysis of 47 studies with 2,747 participants showed that music therapy has a medium-to-large effect on stress-related outcomes ($d = .723$). Clinical controlled trials and studies conducted in non-Western countries had larger effects.

Another relevant study by Aghajani and Mirbagher (2012) studied anxiety in preoperative patients, which is a significant issue that can lead to complications. A study found that listening to music and Holy Quran recitation effectively reduced anxiety and physiological responses before abdominal surgeries. This suggests that these interventions can be beneficial as complementary treatments. Similarly, a study investigated the impact of Qur'an recitation on anxiety in hemodialysis patients. Sixty participants were divided into an intervention group (listening to Qur'an recitation) and a control group. After one month, the intervention group showed a significant reduction in anxiety scores compared to the control group. The findings suggest that listening to the recitation of the Holy Qur'an is an effective intervention for anxiety in hemodialysis patients in Iran.

Furthermore, Hosseini et al. (2013) evaluated the effects of a spiritual or religious training intervention on anxiety in Shia Muslim individuals scheduled for CABG. The intervention, based on Islamic supplication (Zikr), consisted of five sessions. Results showed a significant reduction in anxiety levels among participants who received the intervention compared to those who received standard care. This study suggests that preoperative spiritual or religious training can effectively alleviate anxiety in Muslim patients undergoing CABG. Further research in different populations is warranted to validate these findings and emphasize culturally appropriate interventions.

The current study at Klaten Islamic General Hospital aimed to investigate the impact of murottal therapy on anxiety levels in patients undergoing sectio caesarea. The findings of this study indicated that murottal

therapy had a significant effect on reducing anxiety levels in preoperative sectio caesarean patients. Using the PASS questionnaire as an assessment tool and the Wilcoxon test for data analysis strengthened the validity of the findings.

Conclusively, anxiety is a common concern among pregnant individuals undergoing sectio caesarean surgery. Murottal therapy, a form of therapeutic intervention involving the recitation of the Holy Quran, has shown promise in reducing anxiety levels in various populations. Although limited research exists specifically in preoperative settings, previous studies have demonstrated the effectiveness of murottal therapy and similar interventions in reducing anxiety in patients undergoing surgery. The Klaten Islamic General Hospital study further supports these findings, showing that murottal therapy significantly reduces anxiety levels in preoperative sectio caesarean patients. Further research is needed to explore the long-term effects and optimal implementation of murottal therapy in perioperative care to alleviate anxiety in patients undergoing sectio caesarea.

METHOD

This study represents a rigorous scientific endeavour characterized by an experimental research design employing a one-group pretest-posttest approach. This methodology was selected due to its ability to evaluate the effectiveness of a specific intervention or treatment within a single group of participants.

The targeted population encompassed patients who underwent sectio caesarea, a surgical procedure for delivering babies, at the esteemed Islamic Hospital of Klaten. A consecutive sampling technique was employed to ensure a representative sample, wherein participants were selected sequentially as they presented themselves for the procedure. This approach allowed for a diverse range of individuals who met the inclusion criteria, resulting in a total sample size of 45 patients.

To measure the desired outcomes and evaluate the impact of the intervention, the researchers employed the PASS (Perioperative Anxiety and Satisfaction Scale) questionnaire as the primary assessment instrument. The PASS questionnaire, with its well-established validity and reliability, is specifically

designed to capture pertinent information related to patient experiences and satisfaction in the context of surgical procedures.

We employed the Wilcoxon test, a robust non-parametric statistical method for data analysis. This test is well-suited for the study of paired data, making it an appropriate choice for examining the significant differences between pre-and post-intervention measurements within the same group of patients. By applying this test, the researchers aimed to uncover any meaningful changes or improvements resulting from the intervention, enabling them to draw scientifically sound conclusions.

Overall, this research endeavour demonstrates a meticulous approach to investigating the effects of

a specific intervention on patients who underwent sectio caesarean sections, employing rigorous sampling techniques, validated assessment tools, and appropriate statistical analyses to yield comprehensive and reliable findings.

RESULT

The characteristics of the respondents encompass various factors, including age, education, occupation, and parity. These aspects provide valuable insights into the individuals participating in the study. Furthermore, the forthcoming table will comprehensively present additional details, offering a more in-depth understanding of the respondent demographics and their respective attributes.

Table 1: Average age of respondents at Klaten Islamic Public Hospital in 2022 (n = 45)

	N	Mean	Min	Max	SD
Age	45	27.55	23	35	3.73

*Source: Primary Data 2022

Based on table 1, it is known that the average age of the respondents is 27.55 ± 3.73 years.

Table 2: Frequency distribution of respondent characteristics based on education, occupation and parity at Klaten Islamic Public Hospital in 2022 (n: 45)

Characteristics	f	%
Education		
Elementary School	0	0
Junior High School	2	4,4
Senior High School	24	53,3
University	19	42,3
Amount	45	100
Work		
Housewife	23	51,1
Private	14	31,1
civil servant	2	4,4
Self-employed	6	13,4
Amount	45	100
Parity		
Primigravida	34	75,6
Multigravida	11	24,4
Grandemultigravida	0	0
Amount	45	100

*Source: Primary Data 2022

According to the data presented in Table 2, the educational characteristics of the respondents were primarily focused on individuals with a high school education. This category accounted for 24

people, representing approximately 53.3% of the total participants. Moving on to the occupational backgrounds of the respondents, it was found that a significant proportion of them, precisely 23

individuals, or around 51.1%, identified themselves as housewives. As for the parity status of the respondents, the data indicates that the majority, comprising 34 people or approximately 75.6%, were

classified as primigravidas, suggesting that they were experiencing their first pregnancy.

Table 3: Distribution of respondents' anxiety before and after being given murottal therapy at RSU Islam Klaten in 2022 (n=45)

Worry	Group			
	Before		After	
	f	%	f	%
No Anxiety	5	11,1	12	26,7
Mild Anxiety	18	40	16	35,6
Moderate Anxiety	22	48,9	17	37,7
Amount	45	100	45	100

Source: Primary Data 2022

Based on the findings outlined in Table 3, the research demonstrates that the anxiety levels of preoperative sectio caesarean mothers were assessed both before and after undergoing murottal therapy. The results indicate that most of these mothers experienced moderate anxiety before the therapy, accounting for approximately 48.9% of the sample population ($n = 22$). This implies that a significant proportion of the participants exhibited notable anxiety leading up to their cesarean section.

Following the administration of murottal therapy, the researchers reassessed the anxiety levels of the preoperative section caesarean mothers. The data indicate that even after receiving the therapy, most of these mothers still reported experiencing moderate anxiety. This finding corresponds to approximately

37.7% of the sample population ($n = 17$). Therefore, it can be inferred that while murottal therapy may have impacted reducing anxiety levels, a considerable portion of the participants continued to experience moderate anxiety levels.

Bivariate analysis

A bivariate analysis was performed to investigate and analyze the relationship between murottal therapy and its effect on reducing maternal anxiety in preoperative sectio caesarea at RSU Islam Klaten. This analysis aimed to gain a deeper understanding of how murottal therapy, a particular therapeutic approach, influences and contributes to alleviating maternal anxiety levels in women undergoing preoperative sectio caesarean at the mentioned hospital.

Table 4: Effect of murottal therapy on reducing anxiety in Klaten Islamic Public Hospital in 2022 (n=45)

Group	p-value
Before	0.001
After	

Based on the statistical analysis presented in Table 4, the Wilcoxon test results were highly significant, with a p-value of 0.001. This outcome indicates that the null hypothesis (H_0) was rejected, providing strong evidence to support the alternative hypothesis (H_a). Therefore, it can be concluded that there was a significant effect of murottal therapy on reducing anxiety levels in preoperative sectio caesarean patients at RSU Islam Klaten. These findings highlight the potential effectiveness of murottal therapy as a

therapeutic intervention for managing anxiety in this patient population.

DISCUSSION

Age: The study revealed that the average age of mothers undergoing preoperative caesarean sections was 27.55 years, falling within the productive age range. The youngest participant was 23 years old, while the oldest was 35 years old. These findings

indicate that preoperative caesarean section patients are between 20 and 35 years old, aligning with the ideal reproductive age for pregnancy, childbirth, and breastfeeding, as stated by Rydahl et al. (2019). These results are consistent with research (2017), which also found that most caesarean section operations occur in the age group of 20–35 years. According to Rydahl et al. (2019), the safe reproductive age falls within 20–35 years, during which the reproductive organs are prepared for reproduction. Psychological maturity in this age range is characterized by problem-solving abilities, including coping with the challenges of a caesarean section. Anxiety is expected to arise when undergoing such an operation. Work experience, which represents the accumulation of knowledge through interaction with the environment, contributes to an individual's ability to handle the situation.

Education: Most mothers undergoing preoperative caesarean section surgery have a high school education, accounting for 53.3% of the participants. This indicates that these mothers have completed secondary-level formal education, which exceeds Indonesia's minimum requirement of nine years of education. Respondents with a secondary education tend to be more open to exploring various perspectives and seeking deeper information on issues (Fentie et al., 2022). Lower educational attainment is associated with a higher likelihood of experiencing anxiety compared to those with higher education. Therefore, caesarean-section patients with a secondary education level exhibit a higher level of anxiety, which can be attributed to their lack of knowledge about the procedure (Montgomery, 2011).

Occupation: The study revealed that most respondents were housewives, accounting for 51.1%. As an activity, work has differing impacts on employed individuals versus those who are not. Unemployed individuals tend to have less mental burden and are less affected by work-related anxiety, but they may experience anxiety due to other factors. In contrast, employed individuals experience anxiety from work-related tasks and household responsibilities. The stress associated with the workload is prominent among working individuals (Beatty, 2020). Working mothers frequently experience anxiety. Work, being a source of livelihood, carries a sense of necessity

that may contribute to anxiety, not solely stemming from the process of preparing for childbirth, which identified work as one of the factors contributing to anxiety. The workload, such as feeling incompetent in the workplace or unable to deliver optimal results, can trigger anxiety in individuals.

Primiparity: The findings demonstrated that most respondents exhibiting primiparous primiparity accounted for 35.6% of the total. Primiparous refers to a mother who has experienced her first childbirth. This condition psychologically impacts the mother due to her lack of prior birthing experience, resulting in worry and anxiety. The research conducted by Rodrigues et al. (2016) revealed that primiparous individuals possess satisfactory knowledge regarding cesarean section procedures. This can be attributed to the fact that mothers acquire information from various sources, not solely relying on personal experiences but also drawing from the experiences of others, social media, and other channels. Presently, it is evident that almost all mothers possess an Android mobile phone, enabling them to access the internet at their convenience.

Based on the study's results, the age distribution of the respondents ranged from 20 to 35 years, encompassing 30 participants. These results indicated that the age range for most primiparous individuals fell between 25 and 30 years, while multigravida individuals were predominantly aged between 26 and 37 years. It is suggested that adult human behaviour differs from that of young individuals (aged 20–30 years) and older primiparous individuals (aged 31–40 years) regarding anxiety and emotions. The study found that young primiparous individuals experienced slightly higher anxiety levels than older primiparous individuals (Mandagi et al., 2013).

Anxiety levels in preoperative cesarean section patients before Murotal herapy at the Klaten Islamic General Hospital

The findings showed that the majority of preoperative cesarean section patients had moderate anxiety (48.9%), followed by mild anxiety (40%), and no anxiety (11.1%), before receiving murotal therapy. These findings indicate that preoperative cesarean section mothers experience moderate anxiety before undergoing murotal therapy. This is consistent with

research by Meiseptasari (2019), which showed that most respondents (65%) displayed moderate anxiety levels before receiving murottal therapy.

Anxiety is an emotional disorder characterized by deep and persistent feelings of fear or worry without impairing one's ability to assess reality. The individual's personality remains intact; although their behaviour may be disrupted, it remains within the normal range. Anxiety is associated with feelings of uncertainty and lacks a specific object of focus (Miceli and Castelfranchi, 2005). Moderate anxiety refers to a state in which individuals can concentrate only on important matters, narrowing their perception and disregarding external stimuli. Physiological responses include frequent shortness of breath, increased pulse and blood pressure, dry mouth, diarrhoea, and restlessness. Cognitive responses involve a narrowed perception of the environment, difficulty processing external stimuli, and a heightened focus on concerns. Behavioural and emotional responses include hand squeezing, rapid speech, insomnia, and general distress (Harvey et al., 2005).

Factors influencing anxiety levels include age, education, occupation, gestational age, and prior experience. Moderate anxiety is associated with trembling, cold sweats, muscle tension, dizziness, headaches, irritability, insomnia, palpitations, fatigue, and shortness of breath (McCue and McCue, 1984).

Nurses can assist preoperative cesarean section patients alleviate tension or anxiety before surgery by providing relaxation exercises for anxiety control. Relaxation therapy encompasses various approaches, one of which involves music listening. The cochlear nerve in the ear picks up the mellow air vibrations that makeup music and sends the signals to the brain. In the brain, music influences the pituitary gland to release endorphins, leading to pain reduction. Musical stimulation activates specific pathways within the brain, including the limbic system, associated with emotional behaviour. As the limbic system is activated, individuals experience relaxation. Music proves beneficial when administered to patients scheduled for surgery, as it aids in reducing excessive anxiety by stimulating the brain and modulating brain waves, resulting in a sense of comfort, tranquillity, and peace (Meiseptasari, 2019).

Anxiety levels in preoperative cesarean section patients after Murottal Therapy at the Klaten Islamic General Hospital

After receiving murottal therapy, preoperative cesarean section mothers exhibited no anxiety (26.7%), mild anxiety (35.6%), and moderate anxiety (37.8%). These findings indicate that murottal therapy leads to a decrease in anxiety levels among preoperative cesarean section patients. A comparison of anxiety levels before and after murottal therapy reveals a decrease in anxiety scores, including average and maximum scores. Anxiety arises due to individual psychological responses, often triggered by excessive internal and external stimuli that surpass one's coping abilities (Clark and Beck, 2011).

Listening to Murottal Al-Qur'an (recitation of the Quran) can reduce anxiety levels among preoperative cesarean section mothers, enhancing self-confidence and cultivating positive thinking, thereby preparing themselves for the surgical procedure. Listening to Murottal Al-Qur'an helps alleviate the worries experienced by mothers. Those who initially exhibited moderate anxiety levels shifted to mild anxiety, while those with severe anxiety levels transitioned to moderate anxiety. Despite not comprehending the meaning of the Quranic verses, sincere and devout listening induces a sense of tranquillity and surrender, instilling the belief that everything is in the hands of Allah. This mental state prepares mothers to face the risks of cesarean section surgery.

The impact of Murottal Therapy on anxiety levels in preoperative cesarean section patients at the Klaten Islamic General Hospital

The study revealed that preoperative cesarean section mothers predominantly experienced moderate anxiety (48.9%) before receiving murottal therapy. The anxiety levels observed in the respondents before murottal therapy fell primarily within the moderate anxiety category. This can be attributed to their difficulty accepting new life events and factors such as fear of pain, fear of change in body shape and self-concept, and inadequate information about surgical procedures and preparations, all of which contribute to anxiety among preoperative cesarean section patients. After murottal therapy, the results indicated that no anxiety was reported by 26.7% of the respondents, while 35.6% reported mild

anxiety and 37.8% reported moderate anxiety. Non-pharmacological therapies, including music therapy, have been proven effective in reducing anxiety levels, particularly in preoperative patients (Abd Hamid et al., 2021).

Statistical analysis using the Wilcoxon test yielded a p -value of 0.0001 ($p < 0.05$), indicating a significant effect of murottal therapy on reducing anxiety levels in preoperative cesarean section patients at the Klaten Islamic General Hospital. These results align with previous research, which demonstrated differences in anxiety levels before and after murottal Al-Qur'an therapy (p -value = 0.000, $p < 0.05$). Similar findings were reported by Meiseptasari (2019), who observed an effect of music therapy on anxiety levels in preoperative cesarean section patients at Curup Hospital.

According to Rafique et al. (2019), the Quran is called *As-Syifa*, highlighting its role as a remedy for physical and non-physical ailments. The Quran can heal non-physical conditions, including anxiety, worry, and sadness. When the Quran is recited, the sound vibrations are captured by the ear canal, transmitted to the brain through the auditory nerves, and processed in the area responsible for hearing. Emotions are regulated by brain regions that process and analyze incoming data and information. Sincere and humble listening to the Quran motivates the brain to remember pleasant experiences and thoughts, resulting in a positive mood. Even without understanding the meaning of the verses, the impressions made on the amygdala and hippocampus contribute to a positive emotional effect (Mohd Rozali et al., 2022).

In line with Handayani's study, a paired t -test revealed a significant decrease in average anxiety levels before and after murottal therapy (p -value, 0.000). Mothers who listened to Murottal experienced a sense of calm and comfort, leading to continued tranquillity after the session. Riyadhhi's research also reported a significant difference in anxiety levels before and after murottal therapy (p -value = 0.000, $p < 0.005$).

In conclusion, listening to Murottal Al-Qur'an therapy has been shown to reduce anxiety levels in preoperative cesarean section patients. This therapy promotes a sense of calm and surrender among mothers, instilling confidence and positivity and

preparing them for the surgical procedure. Anxiety levels significantly decrease following murottal therapy, as evidenced by statistical analyses. Murottal therapy is a non-pharmacological intervention that effectively reduces anxiety and improves the well-being of preoperative cesarean section patients.

Theoretical implications of the study

The study investigating the impact of murottal therapy on anxiety levels in patients undergoing sectio caesarean surgery at Klaten Islamic General Hospital has several theoretical implications in healthcare and psychology. These implications contribute to understanding the potential benefits of incorporating murottal therapy as a complementary intervention for anxiety management in preoperative settings.

Anxiety management in healthcare settings: The study highlights the importance of addressing anxiety in the preoperative period, particularly in patients undergoing sectio caesarea. By demonstrating the effectiveness of murottal therapy in reducing anxiety levels, the study suggests that healthcare providers should consider integrating complementary approaches, such as murottal therapy, alongside conventional medical interventions to optimize patient care.

A holistic approach to patient well-being: The findings of this study support the growing recognition of the mind-body connection in healthcare. Murottal therapy, with its roots in spirituality and the recitation of the Holy Quran, addresses not only the psychological aspect of anxiety but also the spiritual well-being of individuals. This highlights the importance of adopting a holistic approach to patient care that encompasses emotional, spiritual, and physical dimensions.

Cultural and religious considerations in healthcare: Murottal therapy is deeply rooted in Islamic culture and spirituality. The study sheds light on the potential role of cultural and religious practices in promoting well-being and reducing anxiety in specific patient populations. Recognizing and respecting patients' cultural and religious backgrounds can enhance the patient-centeredness of healthcare and improve outcomes by incorporating interventions that resonate with patients' beliefs and values.

Complementary therapies for anxiety management: The study contributes to the growing body of evidence

on the effectiveness of complementary therapies in anxiety management. Murottal therapy joins the ranks of other interventions, such as music therapy and guided imagery, that have shown promise in reducing anxiety levels. These findings emphasize the potential value of incorporating non-pharmacological approaches into healthcare practices to improve patient outcomes and reduce reliance on medication alone.

Potential applications in other surgical contexts: Although this study focused specifically on sectio caesarea patients, the findings may have broader implications for anxiety management in other surgical settings. Murottal therapy could be explored as a potential intervention to alleviate anxiety in patients undergoing different types of surgery. Further research is needed to evaluate the generalizability of murottal therapy across surgical populations and identify the specific mechanisms underlying its anxiety-reducing effects.

In summary, the theoretical implications of this study provide valuable insights into integrating murottal therapy as a complementary intervention for anxiety reduction in patients undergoing sectio caesarea. By highlighting the importance of addressing anxiety in preoperative settings, recognizing cultural and religious considerations, and considering holistic approaches to patient care, this study contributes to advancing healthcare practices that prioritize patient well-being and incorporate diverse therapeutic modalities.

Practical implications of the study

The study investigating the impact of murottal therapy on anxiety levels in patients undergoing sectio caesarean surgery at Klaten Islamic General Hospital has several practical implications for healthcare providers, policymakers, and clinicians involved in perioperative care. These implications guide the implementation of murottal therapy as a practical intervention to reduce anxiety in patients undergoing cesarean section surgery.

Integrating murottal therapy into preoperative care: The study's findings suggest that murottal therapy can be incorporated into preoperative care protocols for patients undergoing sectio caesarea. Healthcare providers should consider offering murottal therapy as a complementary intervention

alongside conventional preoperative procedures to effectively address anxiety. This integration requires collaboration among healthcare professionals, including obstetricians, anesthesiologists, and spiritual care providers.

Providing training and education: Healthcare providers should be trained and educated about murottal therapy and its potential benefits in reducing anxiety. This knowledge will enable them to make informed decisions regarding the appropriate use of murottal therapy in different patient populations and to effectively communicate with patients about the intervention. Training programs and workshops can be organized to familiarize healthcare professionals with the principles and techniques of murottal therapy. *Patient-centred care and informed consent:* Practitioners should engage in open and honest discussions with patients regarding murottal therapy, explaining its potential benefits and addressing any concerns or questions. Informed consent should be obtained, ensuring that patients are well informed about the intervention, its purpose, and its integration into their care plan. Patients should also be able to choose whether to participate in murottal therapy or explore alternative interventions.

Multidisciplinary collaboration: Implementing murottal therapy in preoperative care requires collaboration between healthcare disciplines. Obstetricians, anesthesiologists, psychologists, and spiritual care providers should work together to develop comprehensive care plans that incorporate murottal therapy alongside other evidence-based interventions. Multidisciplinary teams can design protocols and guidelines for consistently and effectively integrating murottal therapy into the perioperative pathway.

Future research and evaluation: Further research is needed to explore the long-term effects and optimal dosage of murottal therapy in reducing anxiety in patients undergoing sectio caesarea. Longitudinal studies can assess the sustainability of anxiety reduction and evaluate the impact of murottal therapy on other outcomes, such as postoperative pain management, satisfaction, and recovery. Continuous evaluation and quality improvement efforts should be undertaken to ensure the ongoing efficacy and safety of murottal therapy implementation.

Cultural sensitivity and inclusivity: Healthcare institutions should strive to provide culturally sensitive care and accommodate their patients' diverse religious and cultural backgrounds. Recognizing the value of murottal therapy as a cultural and spiritual intervention allows healthcare providers to create an inclusive environment that respects and supports patients' beliefs and practices. Policies and guidelines should be developed to foster culturally competent care and ensure equal access to murottal therapy for patients from diverse backgrounds.

In conclusion, the practical implications of this study emphasize the integration of murottal therapy into preoperative care protocols for patients undergoing sectio caesarean surgery. By providing training, promoting patient-centred care, fostering multidisciplinary collaboration, and facilitating culturally sensitive practices, healthcare institutions can implement murottal therapy as a practical intervention to reduce anxiety and improve patient outcomes in the perioperative period.

Limitations

While the study investigating the impact of murottal therapy on anxiety levels in patients undergoing sectio caesarean surgery provides valuable insights, it is important to acknowledge the limitations inherent in the research design and methodology. Understanding these limitations can help contextualize the findings and guide future research. The limitations of the study include:

Small sample size: The study had a relatively small sample size of 45 patients. A larger sample size would enhance the generalizability of the findings and increase the study's statistical power. The small sample size may limit the ability to detect smaller effect sizes or to identify potential subgroups that may respond differently to murottal therapy.

Single-group design: The study employed a single-group pretest-posttest design without a control group. The absence of a control group limits the ability to establish a cause-and-effect relationship between murottal therapy and anxiety reduction. Without a comparison group, it is difficult to determine whether the observed reduction in anxiety can be solely attributed to murottal therapy or if it could be influenced by other factors such as time or placebo effects.

Lack of long-term follow-up: The study only assessed anxiety levels immediately before and after murottal therapy. There was no long-term follow-up to examine the sustainability of the anxiety reduction. Longitudinal studies that assess anxiety levels over an extended period would provide a more comprehensive understanding of the lasting effects of murottal therapy on anxiety in patients undergoing sectio caesarea.

Potential confounding variables: The study did not control for potential confounding variables that could influence anxiety levels, such as the severity of the surgical procedure, prior experiences with surgery, or individual coping mechanisms. These variables could have influenced the observed anxiety reduction and may have introduced bias into the study results.

Limited generalizability: The study was conducted at a single hospital, which may limit the generalizability of the findings to other healthcare settings or patient populations. Cultural, social, and demographic factors specific to the study site could influence the response to murottal therapy. Further research in diverse settings and with diverse populations is needed to determine the applicability and effectiveness of murottal therapy in different contexts.

Self-report measures: The study utilized the PASS questionnaire, a self-report measure, to assess anxiety levels. Self-report measures are subject to individual interpretation and response bias, which may affect the accuracy of the reported anxiety levels. Including objective measures, such as physiological indicators of anxiety or clinician-rated assessments, would provide a more comprehensive assessment of anxiety reduction.

Lack of information on murottal therapy delivery : The study does not provide detailed information on the specific protocols, duration, or frequency of murottal therapy sessions. Variations in the delivery of murottal therapy could impact its effectiveness in anxiety reduction. Future research should include standardized protocols and detailed information on the delivery of murottal therapy to facilitate replication and comparison across studies.

In conclusion, while the study on murottal therapy and anxiety reduction in patients undergoing sectio caesarea provides valuable insights, it is important to consider the limitations of the research design

and methodology. Future studies with larger sample sizes, rigorous control groups, long-term follow-up, and diverse populations are needed to further validate the effectiveness and applicability of murottal therapy in reducing anxiety in the perioperative period.

Future research directions

Future research in murottal therapy and anxiety reduction in patients undergoing sectio caesarea surgery can build upon the existing knowledge and address the limitations of the previous study.

Randomized controlled trials: Conducting randomized controlled trials (RCTs) with a larger sample size and a control group is essential to establishing the causal relationship between murottal therapy and anxiety reduction. RCTs would provide stronger evidence of the effectiveness of murottal therapy by comparing it with standard care or alternative interventions.

Long-term follow-up: Longitudinal studies with extended follow-up periods are needed to examine the long-term effects of murottal therapy on anxiety levels in patients undergoing sectio caesarea. Assessing anxiety outcomes beyond the immediate postoperative period would help determine the sustained impact of murottal therapy on anxiety reduction.

Comparative effectiveness studies: Comparative effectiveness research can compare the efficacy of murottal therapy with other anxiety-reducing interventions, such as music therapy, relaxation techniques, or cognitive-behavioural interventions. Comparing different intervention modalities would provide insights into the relative effectiveness of murottal therapy and its potential advantages or limitations compared to other approaches.

Mechanisms of action: Further research is needed to explore the underlying mechanisms through which murottal therapy exerts anxiety-reducing effects. Neurophysiological studies, such as functional brain imaging or biomarker assessments, can illuminate the specific neural pathways and physiological changes associated with murottal therapy. Understanding the mechanisms can enhance our understanding of the therapeutic potential of murottal therapy and inform targeted interventions.

Cultural and contextual factors: Given the cultural and religious significance of murottal therapy, future research should explore the role of cultural and

contextual factors in shaping the effectiveness of this intervention. Investigating the influence of individual beliefs, religious practices, and cultural contexts on the acceptance and efficacy of murottal therapy would contribute to developing culturally sensitive interventions.

Optimal implementation and standardization: Research should focus on developing standardized protocols and guidelines for implementing murottal therapy in perioperative care. This includes determining the optimal dosage, frequency, and duration of therapy sessions. Comparative studies investigating different delivery methods or variations in murottal therapy protocols can help identify the most effective and feasible approach for anxiety reduction.

Patient-centred outcomes: Future studies should expand the evaluation of outcomes beyond anxiety reduction to include other patient-centred measures. Assessing the quality of life, pain levels, satisfaction with care, and recovery outcomes would provide a more comprehensive understanding of the impact of murottal therapy on the overall well-being of patients undergoing sectio caesarea.

Diverse populations and settings: Replicating the study in diverse populations and settings would enhance the generalizability of the findings. Research should explore the effectiveness of murottal therapy in different cultural, religious, and healthcare contexts to determine its applicability and adaptability across diverse populations.

By addressing these research directions, future studies can contribute to the evidence base supporting murottal therapy as an effective intervention for anxiety reduction in patients undergoing sectio caesarea surgery.

CONCLUSION

The surveyed population displayed several noteworthy characteristics. The average age of the respondents was determined to be 27.52 years. A significant majority, comprising 51.1%, identified themselves as housewives. Regarding educational attainment, most respondents (53.3%) reported completing high school. Additionally, a substantial % of pregnancies observed (75.6%) were classified as primigravida, denoting the first pregnancy.

A comprehensive assessment of preoperative section caesarean patients at the Klaten Islamic General Hospital unveiled pertinent insights regarding their anxiety levels. Before receiving murottal therapy, the patients exhibited a prevalent state of moderate anxiety, with 48.9% falling within this classification. Following the administration of murottal therapy at the Klaten Islamic General Hospital, the anxiety levels of the preoperative section caesarean patients were reevaluated. The findings indicated that 37.8% of the patients exhibited moderate anxiety. However, a noteworthy reduction was observed in the percentage of patients experiencing moderate anxiety, while a simultaneous increase occurred in the percentage of individuals who reported no anxiety. Specifically, the percentage of patients in the moderate anxiety category decreased from 11.1% to 26.7%. The efficacy of murottal therapy in ameliorating anxiety levels among preoperative section caesarean patients at the Klaten Islamic General Hospital was evaluated using statistical analysis. The results revealed a significant reduction in anxiety levels, substantiated by a notable p-value of 0.001.

REFERENCES

- Abd Hamid MRB, Mansor MB, Zainalabdin MFB; 2021. Listening music in reducing anxiety for regional anesthesia cases. Preprints.
- Aghajani M, Mirbagher N; 2012. Comparing the effect of holy Quran recitation and music on patient anxiety and vital signs before abdominal surgeries. *Islamic Lifestyle Centered on Health*, 1(1):23-30.
- Alivian GN, Awaludin S, Hidayat AI, Purnawan I; 2022. The Efficacy of Murottal and Prayer as Therapy for The Management of Elderly's Anxiety and Sleep Disturbances. *Jurnal Berita Ilmu Keperawatan*, 15(1):104-110.
- Alvi SM, Altaf N, Khatoon BA, et al.; 2022. Effect of Depression, Anxiety and Stress on Mental Health of Teachers. *Journal of Management Practices, Humanities and Social Sciences*, 6(3):52-60.
- Andersson L, Sundström-Poromaa I, Bixo M, Wulff M, Bondestam K, Åström M; 2003. Point prevalence of psychiatric disorders during the second trimester of pregnancy: A population-based study. *American Journal of Obstetrics and Gynecology*, 189(1):148-154.
- Beatty C.; 2000. Female labour market adjustment processes in the UK coalfields. PhD thesis, Sheffield Hallam University (United Kingdom).
- Celano CM, Daunis DJ, Lokko HN, Campbell KA, Huffman JC; 2016. Anxiety disorders and cardiovascular disease. *Current Psychiatry Reports*, 18:1-11.
- Clark DA, Beck AT; 2011. *Cognitive therapy of anxiety disorders: Science and practice*. Guilford Press.
- Dehaghi MR, Branch M, Mobarakeh I, Khushavi IM; 2020. Effectiveness of the Clinical Creativity Therapy Model on reduction of anxiety and depression in Iran's high school students. *International Journal of Humanities, Arts and Social Sciences*, 6(2):25-31.
- Dewi VNL, Sunarsih T; 2011. *Asuhan kebidanan pada ibu nifas*, vol. 198. Jakarta, Indonesia: Salemba Medika.
- Eskandari N, Keshavars M, Ashayeri H, Jahdi F, Hosseini A; 2012. Quran recitation: Short-term effects and related factors in preterm newborns. *Res J Med Sci*, 6(3):148-153.
- Fentie Y, Yetneberk T, Gelaw M; 2022. Preoperative anxiety and its associated factors among women undergoing elective caesarean delivery: A cross-sectional study. *BMC Pregnancy and Childbirth*, 22(1):1-7.
- Harvey AG, Tang NK, Browning L; 2005. Cognitive approaches to insomnia. *Clinical Psychology Review*, 25(5):593-611.
- Herdiana Y, Djamil M, et al.; 2021. The effectiveness of recitation Al-Qur'an intervention and deep breathing exercise on improving vital sign and anxiety level among Congestive Heart Failure (CHF) patients. *International Journal of Nursing and Health Services (IJNHS)*, 4(1):9-16.
- Hosseini M, Salehi A, Fallahi Khoshknab M, Rokofian A, Davidson PM; 2013. The effect of a preoperative spiritual/religious intervention on anxiety in Shia Muslim patients undergoing coronary artery bypass graft surgery: a randomized controlled trial. *Journal of Holistic Nursing*, 31(3):164-172.

- Ismayanti I, Fitriani A, Jayantika GP, Nurwahidah S, Firdaus FA, Setiawan H; 2021. Murottal Qur'an to Lower Anxiety Rate on Pre-Operative Patients. *International Journal of Nursing and Health Services (IJNHS)*, 4(4):447-457.
- Ljung R, Lindgren AC, Petrini P, Tengborn L; 1994. Normal vaginal delivery is to be recommended for haemophilia carrier gravidae. *Acta Paediatrica*, 83(6):609-611.
- Mandagi DV, Pali C, Sinolungan JS; 2013. Perbedaan Tingkat Kecemasan Pada Primigravida dan Multigravida di RSIA Kasih Ibu Manado. *eBiomedik*, 1(1).
- McCue EC, McCue PA; 1984. Organic and hyperventilatory causes of anxiety-type symptoms. *Behavioural and Cognitive Psychotherapy*, 12(4):308-317.
- Meiseptasari, The Effect of Murottal Therapy on Anxiety in Patients with Chronic Kidney Failure Undergoing Hemodialysis Measures at Kraton Hospital, Pekalongan Regency; 2019.
- Miceli M, Castelfranchi C; 2005. Anxiety as an "epistemic" emotion: An uncertainty theory of anxiety. *Anxiety, Stress, and Coping*, 18(4):291-319.
- Mohd Rozali WNACW, Ishak I, Mat Ludin AF, Ibrahim FW, Abd Warif NM, Che Roos NA; 2022. The impact of listening to, reciting, or memorizing the Quran on physical and mental health of Muslims: Evidence from systematic review. *International Journal of Public Health*, p. 196.
- Montgomery DC; 2020. Introduction to statistical quality control. John Wiley & Sons.
- Novilasari NLPD, Kania N, Panghiyangani R, Sadiqi MA, Arifin S; 2022. The relationship of anxiety, nutritional status and independence with quality of life of hypertension elderly in the work area of Bukit Hindu Puskesmas, Palangka Raya City. *Journal of Advanced Research in Social Sciences and Humanities*, 7(3):108-121.
- Rafique R, Anjum A, Raheem SS; 2019. Efficacy of Surah Al-Rehman in managing depression in Muslim women. *Journal of Religion and Health*, 58:516-526.
- Rodrigues PB, Zambaldi CF, Cantilino A, Sougey EB; 2016. Special features of high-risk pregnancies as factors in development of mental distress: A review. *Trends in Psychiatry and Psychotherapy*, 38:136-140.
- Rydahl E, Declercq E, Juhl M, Maimburg RD; 2019. Cesarean section on a rise—Does advanced maternal age explain the increase? A population register-based study. *PloS one*, 14(1):e0210655.
- de Witte M, Pinho AdS, Stams GJ, Moonen X, Bos AE, van Hooren S; 2022. Music therapy for stress reduction: A systematic review and meta-analysis. *Health Psychology Review*, 16(1):134-159.
- Zubaidilah MH, et al.; 2020. The Impact of Quranic Therapy in Treatment of Psychological Disease and Spiritual Disease for Adolescents of Divorce Parents. In: 6th International Conference on Social and Political Sciences (ICOSAPS 2020) Atlantis Press .