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Effect of Listening to the *Quran* on Anxiety Level in Primipara

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Abstract

Background and Objectives: Anxiety in pregnancy can develop into depression and stress, thereby negatively affecting labor by leading to prolonged labor, preterm labor, low birth weight, and unplanned cesarean section. *Quran* therapy with a slow and harmonious tempo can reduce stress hormones and activate natural endorphins (serotonin). Regarding this, the aim of this study was to investigate the effect of listening to *Quran* recitation on anxiety level.

Methods: This quasi-experimental study was conducted on 32 primipara pregnant women. The study population was divided into two groups,intervention (n=16) and control (n=16). The intervention group was exposed to 15 min of *Surah Ar-Rahman* recitation using audio. Quran in mp3three times a week for four consecutive weeks.

Results: The results revealed no significant difference between the study groups. However, after the intervention, the mean scores of anxiety and total Hamilton Rating Scale in the intervention group were significantly lower than those in the control group.

Conclusion: The findings of the study demonstrated that *Quran* can significantly decrease anxiety level in pregnant women.

Keywords: *Quran* Recitation; Anxiety level; Primipara.

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Introduction

According to the World Health Organization, in 2008, 1.4 million pregnant women experienced anxiety at the time of delivery. In a study conducted in Deli Serdang, Indonesia, around 30% of pregnant women were reported to experience anxiety when facing childbirth. In the mentioned study, the pregnant women had higher levels of anxiety in the third trimester than in the first and second trimesters. Moreover, there was a significant difference between primigravida and multigravida mothers in terms of anxiety (1)

Various reasons account for maternal anxiety aboutpregnancy. Primigravida mothers are more worried about the multiple changes occurring in their lives. The most commonly reported types of anxiety are anxiety about perineal tearing (64%), pain during labor (60%), loss of the neonate (50%), and fetal abnormalities (50%). In a study, the most frequently reported concerns were related to the health status of the neonate (94%), neonatal condition (93%), maternal physical (91%), and incidence of unexpected events during childbirth (89%) (2)

Prenatal anxiety can develop into depression and stress if not managed properly and have a negative impact on labor outcomes by leading to prolonged labor, preterm labor, low birth weight, and unplanned cesarean section. Based on the evidence, prenatal anxiety is a core predictor of many adverse labor outcomes therefore, the routine screening of this anxiety should be integrated into prenatal care. In Indonesia, prenatal anxiety screening is not carried outas a part of midwifery service standards pregnant women.

One of the distraction techniques used to overcome anxiety is murottal therapy

(listening to the verses of the *Quran*). Listening to the Holy *Quran* can stimulate delta waves that cause listeners to be calm, and comfortable. Murotal is a way to read the *Quran* with a moderate rhythm, (i.e., neither too slowly nor too fast) (3). The *Quran* reading therapy with a slow and harmonious tempo can reduce stress hormones and activate natural endorphins (serotonin). This mechanism can increase the sense of composure, reduce the feelings of fear, anxiety, and tension, and improve the body's chemical system through reducing blood pressure, and slowing down breathing, heart rate, pulse, and brain wave activity.

The *Quran* therapy has never been introduced or recommended in health centers specifically for the third-trimester pregnant women to help reduce laborRegarding this, the present study was conducted to examine the effect of listening to the *Quran* recitation on anxiety in primipara, pregnant women. It is expected that listening to, the *Quran* recitation can facilitate the reduction of third-trimester anxiety in primipara women, thereby maintaining their physical and psychological health and protecting them from labor complications.

Methods

This non-blind randomized controlled trial was conducted on 30 primipara women referring to the Meningting Health Care in West Nusa Tenggara Barat, Indonesia, during May-November 2018. The study population was selected using convenience sampling technique, and then randomly allocated into two groups of intervention and control. The sample size estimated at 15 subjects in each group using the results of a local study and considering a type I error probability of 0.05 and a power of 0.80.

The inclusion criteria entailed: 1) primiparity, 2) gestational weeks of 28-34, 3) mild anxiety, 4) Islamic religion, 5) lack of hearing impairment, and 6) literacy. On the other hand, the exclusion criteria included: 1) pregnancy with complications, 2) mother with the presence of a husband who is outside the area, and 3) emergence of complications during the research process. The data collection instrument consisted of two parts. The first part included the clinical and demographic information (e.g., age, educational status, and income level), and the second part entailed the Hamilton Anxiety Rating Scale (HARS).

The HARS consists of 14 items, each of which is scored on point Likert scale ranging from almost never=0 to almost always=4). The minimum and maximum scores of each subscale are 0 and 56, respectively. In this regard, higher scores represent higher levels of anxiety. In this study, Indonesian version of HARS was utilized, which has yielded satisfactory validation results. The validity of this instrument was reported at > 0.05 and > 006 by Fuad Kautsar et al. (13

After the attendance of the researcher to this unit and identification of the eligible pregnant women who were in the third trimester and signed the consent form, they were randomly allocated into two groups of intervention and control. Subsequently, the researcher extracted the patients' demographic and clinical information and entered them in the first part of the instrument.

In the intervention group *Quran* recitation (*Ar-Rahman* with the voice of Syekh Al Ghomidi) was played back with a headphone for each patient

for 15 min. This intervention was implemented three times a week for four consecutive weeks. The patients in the control group only rested during this period. The level of anxiety was measured in two stages, namely immediately before the intervention and after the study, and then entered into the second part of the instrument.

The data were analyzed in the Statistical Package for Social Sciences (version 11.5). The difference between the two groups regarding demographic and clinical data was assessed by independent samples t-test. The independent samples t-test was also used to assess the effect of *Quran* recitation on the level of anxiety. P-value less than 0.05 was considered statistically significant.

This study was approved by the Ethics Committee of the Faculty of Medical Sciences of University of Mataram, Indonesia. In addition, permissions were obtained from the

authorities, of the healthcare under study. The researchers explained the aims and process of the study to the participants. Furthermore, they were informed about the voluntariness of studyparticipation and probability of study withdrawal at any time. They were also ensured of the confidentiality of their personal information. In addition, written informed consent was obtained from each participant.

Result

The results of the study regarding the effect of listening to the *Quran* recitation on reducing primigravida anxiety are shown in Table 1.

Table 1. Characteristics of research subjects

Variable		Group		P-value
		Intervention (%)	Control (%)	
Age	< 20	3 (18.8%)	1 (6.25%)	0.53
	20-24	12 (75%)	14 (87.5%)	
	25-29	1 (6.25%)	1 (6.25%)	
Education level	Primary School	0 (0%)	0 (0%)	0.60
	Junior High School	1 (6.25%)	1 (6.25%)	
	Senior High School	15 (93.8%)	14 (87.5%)	
	University	0 (0%)	1 (6.25%)	
Income level	Below standard	13 (81.2%)	11 (68.7%)	0.10
	Above standard	3 (18.8%)	5 (31.3%)	

As indicated in Table 1, the two groups were comparable in terms of age, education, and income (P>0.05). The homogeneity of these characteristics facilitates the implementation of further analysis. Table 2 presents the comparison of anxiety between the two research groups.

Table 2. Comparison of Anxiety Level in Both Research Groups

Anxiety level		Group		P-value
		Intervention	Control	
Pre-intervention	Mean (SD)	15.12 (0.86)	15.06 (0.77)	0.83
	Range	14-16	14-16	
Post-intervention	Mean (SD)	12.88 (1.31)	15.06 (0.77)	<0.01
	Range	10-15	14-16	

Discussion

The subjects of this study consisted of primipara pregnant women in the third trimester with 28-36 weeks of gestation referring to Meninting Community Health Center. The majority of the subjects in this study were within 20-24 years of age. There was no significant difference between the two groupsIn terms of age. The age range of 20-24 years is a period of healthy reproductive age during which women pregnant easily.

However, 3 subjects in the intervention group and 4 subjects in the control group were younger than 20 years. People at a young age have unstable psychological conditions; therefore, this group is more vulnerable to prenatal anxiety. Accordingly, age is regarded as a factor in determining anxiety during pregnancy. Tolerance will increase with aging and understanding of anxiety.

One's ability to respond to anxiety is influenced by his/her age. In adults who are more mature allows them to use good coping mechanisms, compared to younger age groups. Coping mechanisms include task orientation behaviors and ego defense mechanisms, which can provide psychological protection. However, sometimes under certain conditions, this coping mechanism deviates and no longer is able to help someone adapt to stressors, thereby causing anxiety and stress (3).

Another characteristic investigated in this study is the education level of the research subject. As indicated in Table 1, the majority of the subjects in the two groups had high school education. The results revealed that the two groups were comparable in this regard. A high education level will expand the views and scope of individuals and make it easier for respondents to receive information about health, resulting in the reduction of the level of anxiety.

On the other hand, Hawari states that the individuals with a high level of education are more probable to find or receive information regarding their condition and severity of the diseasetherefore, they are more prone to anxiety. Knowledge is obtained formally; in this regard, individuals have a mindset and behavior in accordance with the education they obtain.

A person's knowledge of the disease or pregnant women’s information about labor that might have been obtained from the education bench still needs to be improved in order to increase the mother's sense of security and make them prepared for labor. Mother's

knowledge can be improved by providing health education about the care of pregnant women during pregnancy and preparation for delivery (3)

The results of the present study revealed no significant difference between the two groups in terms of economic status. In this regard, 13 and 11 subjects in the intervention and control groups had an income level of 2.3 million rupiahs, respectively. The availability of facilities and a good environment can help overcome the anxiety experienced by pregnant women.

Poor economic conditions, low education, minimal information, and lack of adequate health facilities make mothers less aware of the ways of overcoming anxietyMaryam and Kurniawan demonstrated that income as an indicator of economic status had an influence on the level of anxiety. In this regard, they reported that individuals with an income level below the regional minimum wage experienced more anxiety than those with an income level above the regional minimum wage (4).

As indicated in Table 2, the comparison of anxiety scores between the two study groups showed no significant difference before receiving the intervention. However, following the intervention, the two groups were significantly different in terms of the anxiety score.

In this study, murottal *Quran* therapy was implemented by means of audio *Quran* in mp3, using the voice of Sheikh Al Ghomidi from the Middle East reciting the verses of *Ar-Rahman Surah*. Murottal therapy was carried out three times a week for four consecutive weeks. Our results revealed that this intervention led to the reduction of anxiety in primipara pregnant women in the third trimester. This is in line with the findings obtained by Handayani stating that the recitation of the *Quran* which is an amazing healing instrument that is also accessible. *Quran* can reduce stress hormones, activate natural endorphins, increase feelings of composure, divert attention from fear, anxiety, and tension, and improve the body's chemical system. It also lowers the blood pressure and slows down breathing, heart rate, pulse, and brain wave activity. Deeper or slower breathing rates can efficiently cause calmness, emotional control, deeper thinking, and better metabolism (5-10).

In a study, Cookeet al. investigated the *Quran* therapy using a tape recorder, *Quran* recitation tape, and earphone tape consisting of short notes of the juz 30 of the *Quran* which is easier to memorize and more familiar to people, played for 15 min giving an impact psychological towards the positive, this is because when the *Quran* is heard and reaches the brain, this *Quran* will be translated by the brain. Our perceptions are determined by all, desires, needs, and prejudices.

The *Quran* stimulant as a relaxation therapy can be used as a new alternative treatment, which is even better than other audio therapies because the *Quran* can generate a delta wave of 63.11%. Low sound intensity is a sound intensity of fewer than 60 dB, which gives comfort and causes no pain. Murottal has an intensity of 50 dB that exerts a positive influence on the listener. This audio therapy is also a cheap treatment that is accompanied by no side effects11Babaai Atye et al. also conducted a study on 60 patients subjected to cardiac catheterization measurement in two groups of control (n=30) and intervention (n=30). The intervention group was exposed to 18 min of the *Quran* recitation. They observed a significant decrease in the mean score of anxiety in the intervention group. Music stimulation increases the release of endorphins, thereby reducing the need for medication. This release also provides a distraction from pain and can reduce anxiety.

According to the Candace Pert's theory, neuropeptides and biochemical receptors released by the hypothalamus are closely related to emotional events. cheerful/relaxed state can reduce cortisol levels, epinephrine-norepinephrine, dopa, and growth hormone in the serum (8-10).

Nayef et al. examined the effects of the *Quran* on human emotions. Accordingly, the evidence is indicative of the positive effects of the *Quran* on mental health. Spiritual approaches in a positive form, such as listening

to the *Quran* , help solve problems and reduce anxiety as much as possible. The daily spiritual activities related to the health and emotional aspects are a source of support and emotional strength, facilitating the reduction of anxiety.

The human spiritual dimension is one of the four dimensions of a holistic approach, and like the biological, psychological, and social aspects. Based on the evidence, attention to the spiritual dimension of care will produce significantly different results from attending to its physical, psychological, and social dimensions. In addition, participation in religious and spiritual rituals is associated with better health outcomes, such as increased life expectancy, reduced cardiovascular diseases, and decreased risk of depression, anxiety, substance abuse, and suicide (12).

Based on the study performed by Nayef et al., the *Quran* facilitates the stabilization of the heart rate, breathing, and emotion. Nayef revealed that listening to the *Quran* recitation can control the brain to reduce anxiety, fatigue, and boredom and result in spiritual relaxation. Listening to the *Quran* recitation is a therapeutic approach that can control the heart rate, breathing, blood pressure, brain waves, temperature, and muscle pressure (12).

Conclusion

The results of the present study revealed a significant difference between the intervention and controlgroups in terms of anxiety level after listening to the *Quran* recitation. Integration of the Holy *Quran* recitation into the care process of primipara pregnant women would be accompanied by a positive effect reducing their anxiety.

Conflict of interest

The author declares no conflict of interest.

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