The Effect of Murrotal Al-Qur'an Audio on First Stage Labor Pain among Maternity Women

Siti Qomariah Nukuhali[1], Shinta Novelia[2], Dewi Kurniati[3]

1,2 3 Midwifery Department, Faculty of Health Sciences, Universitas Nasional, Indonesia
Corresnponding Author: shinta.novelia@civitas.unas.ac.id

Abstract

The purpose of this study is to determine the effect of Murrotal Al-quran Audio on first stage labor pain among maternity women in Prof. dr. J. A Latumeten Hospital Maluku Province, Indonesia. The study design is quasy experimental. The population is all maternity women who were in the first stage labor in Januari 2022 which consisted of 68 women. 30 women were selected purposively and agreed to join the study. The inclusion criteria are muslim women who had no hearing problems and labor complication. The intervention was an audio of Murrotal Al-quran Surah Ar-Rahman for 30 minutes. A numeric rating scale was used to measure the pain level before and after intervention. The bivariate analysis was done by Mann Whitney test. The results show that majority of women (60%) experienced a moderate level of pain before and after intervention in the control group. While, in the experiment group, majority of women (60%) experienced moderate level of pain before intervention and majority of them (66,6%) experienced mild level of pain after intervention. The bivariate analysis shows that there was a significant difference of pain score between experiment and control group after intervention (p= .005). In addition, there was a significant difference of pain score before and after intervention in the experiment group (p= .005). There was an effect of Murrotal Al-quran Audio on first stage labor pain among maternity women in Prof. dr. J. A Latumeten Hospital Maluku Province, Indonesia in 2022. The Murrotal Al-quran Audio is effective to decrease labor pain among maternity women. Nurses and midwives who work in the labor room are urged to implement the murroral Al-quran Audio to help maternity women in decreasing labor pain.

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Keywords: murrotal, labor, pain.

Introduction

Childbirth is the process where the baby, placenta, and amniotic membranes exit the uterus of the birth mother[1]. Normal delivery occurs at term gestational age/after 37 weeks of gestation or more without complications. The labor process begins (inpartu) when the uterus contracts and causes bleeding in the cervix (opening and thinning) and ends with the complete birth of the placenta .

Labor pain is a physiological condition that begins to arise in the first stage of labor in the latent phase and the longer the pain is felt, the stronger it becomes, the peak of pain occurs in the active phase. The intensity of pain during labor affects the psychological condition of the mother, the birth process, and the well-being of the fetus. The birthing process causes many mothers to experience anxiety when they are about to give birth. Uterine contractions are one of the causes of painful sensations, making the mother anxious about childbirth[2].

At the end of pregnancy, the mother and fetus prepare themselves to face the birth process. The fetus grows and develops in the process of preparing for life outside the womb. Mothers undergo various physiological changes during pregnancy in preparation for the birth process and to play the role of mother. Labor and birth is the end of pregnancy and the starting point of life outside the womb for newborns. Labor begins when the uterus contracts and causes changes in the cervix which opens and thins and ends with the complete birth of the baby and placenta. The experience of labor can be experienced by mothers for the first time (primi), or the second or more (multi). 60% of primiparas described uterine contraction pain as "unbearable, intolerable, extremely severe, or excruciating," with the other 30% describing it as "moderately severe". Childbirth pain ranked among the most intense pains recorded compared with other sources of acute pain (such as a fracture or deep laceration)[3,4,5].

Factors related to labor pain are parity, age, perception, anxiety, fear of childbirth, culture, coping style, previous experience, husband or family support, individual perception of pain, the role of the midwife in childbirth, education, expectation regarding pain, and socio economic status[6,7,8]. The impact of labor pain are Chronic pain, Post-partum stress syndrome, Undesired psychological (anxiety), Physiological consequences (increasing of sympathetic nervous system, changes in blood pressure, heart rate, breathing) and Prolong labour[6].

The management of labor pain can be done by pharmacological and non-pharmacological therapy. Pharmacological therapy is analgesic. Nowadays, non-pharmacological methods using distraction techniques are starting to gain a lot of interest. Distraction is the act of diverting the pain experienced by doing something else, so that the patient does not focus on the pain. Non Pharmacological therapu are acupressure, acupuncture, cold compresses, warm compresses, hydrotherapy, hypnotherapy, endorphine massage, relaxation and distraction techniques, ex murotal al-quran therapy[10,11]. Indonesian Government has released a to ensure the midwifery care for childbirth as stated in Indonesian Law for Healht No. 17 in 2023, Chapter V that Maternal health efforts need to be carried out during pre-pregnancy, pregnancy, childbirth and post-partum.

Rumkit TK.II.Prof.dr.J.A.Latumeten is one of the hospitals in Ambon City. Based on data obtained from the hospital, the number of births is uncertain every month but on average there are 60 births a month or every day an average of 2-3 births are Muslim. Apart from that, a preliminary study conducted by researchers showed that all mothers who gave birth experienced moderate to severe pain when facing the first stage of labor and had never been given non pharmacological therapy. Based on this background, the author is interested in conducting research on the effect of murottal therapy on maternal pain in the first stage of labor at Rumkit TK.II.Prof.dr.J.A.Latumeten.

Method

Method should be structured as follows:

1. *Research design*

This study is a quasy experimental with control group.

2. *Setting and samples*

The study was conducted in Rumkit.Tk II.Prof.dr.J.A. Latumeten Ambon (Hospital), January to February 2022. The Population was all maternity women (primiparous) who were in childbirth during the study period (N=68). However, 60 women were recruited as the sample. The inclusion critera are muslim, first stage active phase labor, no hearing disorders, not > 7 cm of CD, normal fetal heart rate, latent phase no more than 12 h, chepalic presentation, no maternal/ fetal

complications, labor support from the family, no contraindication for vaginal delivery.

3. *Intervention (applies to experimental studies)*

The intervention was murrotal alquran audio (Surah Ar-Rahman) for 30 minutes. it was played for all women who were in experiment group. The routine care was provided in both experiment and control group. The instrument used were numeric rating scale, tape, and handphone.

4. *Measurement and data collection*

The numeric rating scale was used to measure the pain score before and after intervention. The score then was classified into:
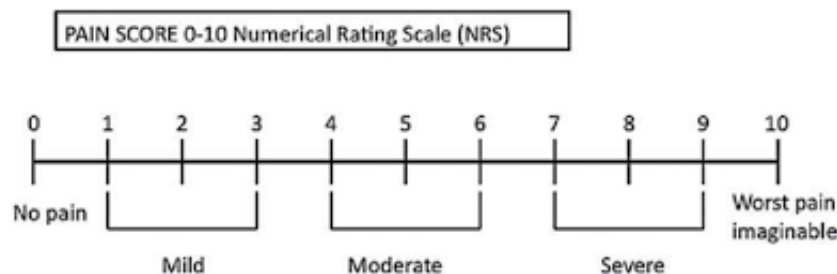
Picture 1. Pain score classification

5. *Data analysis;*

Data were analyzed by univariate and bivariate analysis. Univariat analysis was used to determine the level of pain and bivariate analysis was used to analyze the differences of pain score within and between group. Mann whitney test and Wilcoxon sign rank test were used to anayze the data.

Results

Univariate Analysis

Table 1
Pain Levels Before and After Intervention in the Experiement and Control Group

Variable	Labor Pain Level	Frekuency (f)	Percentage(%)
Pre-Test control	Mild	2	13,0%
	Moderate	9	60%
	Severe	4	26,7%
	Mild	1	6.7%

Variable	Labor Pain Level	Frekuency (f)	Percentage(%)
Post-Test control	Moderate	9	60.0%
	Severe	4	26.7%
	Very severe	1	6.7%
Pre-Test Experiment	Moderate	9	60,0%
	Severe	4	26,7%
	Very severe	2	13,3%
	Mild	10	66.6%
Post-Test Experiment	Severe	4	26.7%
	Very severe	1	6.7%
Total		15	100%

In table 4.2, it can be seen that the Pre-Test Control with 15 respondents had a majority of mild pain levels which was 2 people (13.3%), and moderate pain was 9 people (60.0%) and severe pain was 4 people (26.7). Then in the Post Control group, it was found that the level of mild pain was 1 person (6.7%) and moderate pain was 9 people (33.3%), as well as severe pain was 4 people (26.7%) and very severe pain was 1 person (6.7%).

Bivariate Analysis

Table 2.

The differences of pain score pre and post-test in the experiment and control group

Pain pre test						Mean Dif	p
	N	SD	Min	Max	Mean		
Control	15	594	2	4	3.27	0.6	0.000
Experiment	15	743	3	5	3.87		
Pain post test							
Control	15	516	3	4	3.47	1.4	0.000
Experiment	15	254	2	3	2.07		

Based on table 2, the mean difference of pain score before intervention between group is 0.6 (p = .000). In addition, the mean difference of pain score after intervention between group is 1.4 (p= .000).

Table 3. The differences of pain score before and after intervention within experimental group.

Pain Level						Mean Diff	p
	N	SD	Min	Max	Mean		
Pre Experiment	15	743	3	5	3.87		
Post Experiment	15	254	2	3	2.07	1.8	0.000

Table 3 shows that the mean difference of pain score after intervention within experiment group is 1.8 (p= .000). It can be concluded that there is an effect of murrotal alquran audio on the decreasing of labor pain among maternity women.

Discussion

Labor pain is pain that originates from subjective, rhythmic, increasing movements (contractions) of the uterus. The frequency and severity with which the baby is removed. The intensity of the pain is proportional to the strength of the contraction and the pressure that occurs, the pain increases when the cervix is fully dilated due to the pressure of the baby against the pelvic structures followed by stretching and tearing of the birth canal[11].

The difference in pain between each respondent before murotal therapy was caused by how the respondent responded to the pain they experienced and this was related to the respondent's psychological condition. Labor pain is unique and different for each individual because pain is not only associated with physical conditions, but is also related to the psychological condition of the mother during childbirth. The psychological condition in question is excessive fear and anxiety which will cause or even worsen pain due to physical conditions.

Murottal therapy is a therapy that listens to the recitation of Al-Quran verses to the patient to help the patient divert his mind from the pain he is feeling. Murottal Al-Quran therapy with its regular correct reading is also Al-Quran music that is able to bring calm to the person who hears it. The condition of a mother in labor is a condition that requires a lot of support and suggestions, including the reality of awareness of the existence of God Almighty. This situation which causes the brain to be in alpha waves is

a state of brain energy at the Hz frequency, here the brain responds to stress and anxiety. So that the mothers who gave birth during the first active phase, who were research respondents, looked more relaxed and calm in dealing with the labor pain they felt and when the pain scale was measured, most of them stated that the pain had decreased. The theory of pain proposed by Melzak da Wall (1965) states that the existence and intensity of pain depends on certain transmission of nerve impulses, the gate mechanism along the nervous system controls and controls the transmission of pain, if the door is opened a pain impulse is felt, and vice versa if closed door pain impulses are not felt[4].

Providing Murottal AL-Qur'an therapy to mothers in the first active phase of labor who were research respondents, closed the gates of the pain transmission nervous system. Because respondents were distracted from the pain they were feeling, most said the pain had become somewhat reduced. The Al-Quran, which was recited with great emotion, listened to with submission, brought respondents who were mothers giving birth during the first active phase, to an awareness of the majesty and greatness of Allah SWT, so that a total awareness of surrender to the power of Allah SWT emerged, which ultimately made respondents were more calm, relaxed and religious in dealing with pain and the birth process.

Esmaeili *et al.* (2019) evaluated the influence of Quranic verses on labor pain severity[11]. They reported that the intervention group's pain frequency was considerably different, and women had less pain during the fourth and fifth hours of the active phase. Bayrami & Ebrahimipour (2014) conducted a similar study in which they evaluated maternal and neonatal variables in nulliparous women after listening to the sound of the Quran[12]. They discovered that the sound of the Quran had an effect on the level of pain during the initial stage of labor in nulliparous moms. The feeling of pain that arises during labor is caused by uterine contractions which will push the baby out of the uterus gradually little by little. Due to the pushing force of these contractions, the cervix gradually begins to open, stretching little by little, to pave the way for the baby to come out. Providing murottal therapy to mothers in the first active phase of labor who were research respondents, closed the gate of the nervous system of pain transmission.

The current study's findings corresponded with those of Saged et al., (2018), who investigated the effects of the Quran on the treatment of psychological disorders and spiritual illnesses, demonstrating that the Holy Quran's sound is an effective therapy

for individuals who are distressed by spiritual and psychological concerns[13]. In addition, These results were agreed upon with Abbas et al., (2016) they reported that pulse rate, blood pressure, and respiratory rate were lowered significantly in the Quran group than in the Non-Quran group[14].

Pain is a very individual phenomenon with a person's sensory and emotional components, which is what causes mothers' perception of pain during the first active phase to be different. Where the characteristics of the research respondents are from the ages of 20 to 40 years, so the perception of pain between young mothers is of course very different from that of older mothers, as well as differences in the characteristics of the number of children, where the pain between primiparous mothers is certainly different from the pain of multiparous mothers. This happens because multiparous mothers have more mental readiness and birth experience compared to primiparous mothers in facing the birthing process.

Limitation

The limitation of this study are non-probability sampling and no clinical outcome were masured.

Conclusion

The majority of respondents in the control pre-test had a moderate pain level that were 9 people (60%), the majority of respondents in the control post-test had a moderate pain level that were 9 people (60%), while the majority of respondents in the experimental pre-test group that were at the 9 people (60.05%) had moderate pain and in the experimental post-test the majority of respondents had mild level of pain that were 10 people (66.6%). There was a significant difference of pain score between pre and post pain in the control group and the experimental group. There was a significant reduction of the level of labor pain during the active phase of the first stage in the pre and post experimental groups after Murottal therapy was administered. In conclusion, the murrotal alquran audio promote pain reduction during childbirth. This study

recommend that nurses and midwives need to introduce this kind of intervention to reduce pain during childbirth in order to improve the clinical outcomes of the labor.

Ethical Considerations

This study has gained the ethical approval from Faculty of Medicine, Pattimura University (Letter No. 017/ FK-KOM.ETIK/VIII/2022.

Conflict of Interest

There is no conflict of interest in conducting this study.

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