The Impact of Murrotaq Al-Qur’an on Decreasing Labor Pain: A Systematic Review

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ABSTRACT

Background: Murrotaq Al-Qur’an therapy is a therapy for reading Al-Qur’an which is a religious therapy in which a person is recited verses from the Qur’an for a few minutes or hours so that it has a positive impact on one’s body. Murrotaq Al-Qur’an recitation as a remedy for physical ailments. The aim of the study: To see the effect of murrotaq Al-Qur’an therapy on reducing the intensity of pain during labor. Method: Systematic review using the database: Google Scholar. The search results that meet the criteria are then analyzed the articles. Results: Pain in labor from many factors: 1) Anxiety and Stress, 2) Supporting Environment and Individuals, 3). Number of Deliveries and 4) Subjective Experience. Conclusion: There is an effect of offering murrotaq Al-Qur’an therapy on reducing pain intensity, where mothers who give birth after receiving Murrotaq Al-Qur’an therapy have a lower pain scale than mothers who give birth before getting Murrotaq Al-Qur’an therapy. Keywords: Murrotaq, Al-Qur’an, Labor Pain, Systematic Review

INTRODUCTION

Al-Quran is a book that was revealed to humans. In general, the Qur’an invites humans to a state of calm to deal with stress, and is epistemologically related to the approach to the universe, the beginning and the end of the world, life and its meaning. Murrotaq Al-Qur’an is able to stimulate the parasympathetic nervous system which has the opposite effect to the sympathetic nervous system. Hence, Murrotaq Al-Qur’an strikes a balance in the two autonomic nervous systems. This is the basic principle of response, called the balance between the sympathetic nervous system and the parasympathetic nervous system.

Childbirth is the process of releasing the fetus from the uterus through the vagina to the outside world. Labor begins when there is dilatation and the woman's mucus mix with blood. Mucus mixed with blood occurs because the cervix begins to open and flatten, from 1
to 10 cm, while blood coming from the capillaries around the cervical canal bursts because the cervix is open. One of the signs and symptoms of labor is the increase and frequency of contractions that are getting shorter, causing more intense pain³.

Physiologically, labor pain begins in the latent and active phase of the first stage of labor. Pain due to uterine contractions and cervical dilation. Over time, the pain will get stronger. The pain peaks in the active phase when the cervix is fully dilated to 10 cm. The intensity of pain during childbirth affects the psychological condition of the mother, the delivery process, and the welfare of the fetus⁴. The pain, and fear that plagues pregnant women can produce excessive amounts of catecholamines (stress hormones) such as epinephrine and norepinephrine. High levels of catecholamines can promote labor by increasing blood flow to the placenta⁵. Labor pain is a complex problem for every mother who gives birth, both primiparous and multiparous⁵.

When the mother gives birth, there is an increase in the hormone adrenaline and noradrenaline or epinephrine and norepinephrine which causes the body's biochemical dysregulation. Dysregulation of body biochemistry will cause physical damage to the mother in childbirth. The impact of physiological processes can appear on the behavior of the mother before delivery. Mothers who give birth become restless and unable to focus on the delivery. This condition can lead to and further alter which forms a feedback cycle that can increase the intensity of the emotion and ultimately be painful. Physiological responses to pain include increased blood pressure, increased pulse rate, more sweating, sweating, larger pupil diameter, and muscle activity. Pain during childbirth is caused by several factors: anoxia (lack of oxygen) of the uterine muscles, stretching of the cervix, pulling of the tubes in the fallopian tubes (ovarian and ligaments that support the uterus, tubes and bladder, rectum and stretching of the pelvic muscles)⁶,⁷.

In addition to the physical aspect, the psychological aspect is also an important part of childbirth. One of the factors that affect the psychological state of the mother is the mother's discomfort. Discomfort can be seen from the pain felt by the mother. Labor pain arising from the movement (contraction) of the uterus that is subjective, rhythmic with increasing frequency and different severity. The intensity of pain is proportional to the strength of the contraction and the pressure that occurs. Pain will increase when the cervix is completely dilated due to the baby's pressure on the pelvic structures followed by stretching and tearing of the birth canal⁴.

Unstable psychological situations and conditions in the mother play an important role in more severe labor conditions. Physical disturbances in the form of pain come from the physiology of labor accompanied by anxiety, so that with the presence of anxiety, the pain felt by the mother in labor increases⁷,⁸. Labor pain is associated with two types of pain. The first pain comes from the uterine muscle when it contracts due to internal organ pain. The pain that occurs is called visceral pain. Like other visceral pain, the pain that arises cannot be pinpointed (pointing precisely). Visceral pain can also be felt in other organs that are not the origin of the pain (pain reference). In labour, referred pain can be felt in the lower back and sacrum which usually occurs during labour⁹.

There are several factors that influence labor pain such as anxiety, culture, coping style, previous experience, husband or family support, individual perception of pain, age and the role of the midwife in childbirth⁴. If there is no reduction in pain during labor, it will result in prolonged labor. Good handling must be done with pharmacological and non-pharmacological methods.
Pharmacological pain methods can be done by giving nitrogen monoxide and oxygen, giving opiates, and giving lumbar epidural analgesia, while non-pharmacological methods include: relaxation, hypnotherapy, therapeutic touch, disorder therapy, TENS (Transcutaneous Electrical Nerve Stimulation) and music therapy. With great pain, mothers will always ask for an accelerated labor and want to be given painkillers and some want surgery. Pain is a condition that is feared, especially by pregnant women and mothers who give birth. Fear of childbirth is the main reason for pregnant women to choose delivery by caesarean section which is carried out without medical indications, but because of the demands of pregnant women who view caesarean section as a better alternative than normal delivery because of labor pain. One of the distraction techniques that can be used is murottal Al-Qur'an. Murottal Al-Qur'an is a therapy that can be interpreted as a sound recording of the Qur'an sung by the Qori (readers of the Qur'an). Murottal Al-Qur'an Therapy is a therapy for recitation of the Qur'an which is a religious therapy of reading verses of the Qur'an for a few minutes or hours so that it has a positive impact on the body. Murottal Al-Qur'an has two important points, first because it has a beautiful rhythm and can psychologically motivate and motivate in dealing with stress. Second, the sound of Murottal Al-Qur'an can reduce stress hormones, activate natural endorphins, increase feelings of relaxation, and distract from fear, anxiety, and tension, increasing the body's chemical system lowers blood pressure, frees breathing, heart rate, pulse, and brain wave activity.

Management and monitoring of labor pain, especially during the active phase is very important, because this determines whether a mother can undergo a normal delivery or end with action due to complications due to severe pain. From the background of these problems, the purpose of this study was to see whether there was an effect of giving Murottal Al-Qur'an therapy on reducing labor pain.

**RESEARCH METHODOLOGY**

**Inclusion and Exclusion Criteria**

The inclusion criteria of the articles used: 1) Articles that describe murottal Al-Qur'an and labor pain 3) Published articles have complete sections. 4) Published between 2015-2020. Article exclusion criteria include: 1). The composition of the articles is not complete.

**Search Flow**

The search was conducted using the Google Scholar database using the
keywords: “Quran Labor Pain”. The articles that appear are then sorted so that no articles with the same title are found. Furthermore, the articles are sorted based on the inclusion and exclusion criteria that have been determined. Articles that include only the abstract will be eliminated. So that the articles will be analyzed.

**Article extraction**

The articles that have been obtained are then extracted. Extraction of articles based on the author of the article, the year of publication of the article, the number of samples used, the measuring instrument used, the results of the research conducted, and the article database.

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**RESULT**

Search results using the keyword "Quran Labor Pain" using the electronic Google Scholar database. The search results using these three keywords with the 2015-2020 filter yielded 542 articles. Then filtered articles with inclusion and exclusion criteria obtained 109 articles. Selection of the next article by eliminating duplication of articles with the results of 13 articles. Furthermore, the elimination of articles based on a complete arrangement of 9 articles was carried out.

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**Tabel 1. Article Extraction**

<table>
<thead>
<tr>
<th>Writer</th>
<th>Years</th>
<th>N</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lilin Turlina, Hesti Sri Nurhayati</td>
<td>2017</td>
<td>20 subjects</td>
<td>The results showed that most (55%) women who gave birth experienced moderate pain before being given Murottal Al-Qur'an therapy, and most (60%) women who gave birth experienced pain after being given Murottal Al-Qur'an therapy. The results showed that p = 0.001 with &lt;0.05. There is an effect of giving murottal Al-Qur'an therapy that reduces the intensity of pain in active phase maternity mothers.</td>
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<tr>
<td>Debby Yolanda, Yunita Widyanti</td>
<td>2015</td>
<td>10 subjects</td>
<td>The results of the study showed that most of the respondents had a severe pain scale of 31 respondents (91.1%) before being given murrotal therapy and after being given murrotal therapy had a severe pain scale of 29 respondents (85.2%). The results of the study will show that there is an effect on reducing labor pain in primigravida before and after murrotal therapy (P = 0.001).</td>
</tr>
<tr>
<td>Shofia Maharani Khoirun Nisa, Bhisma Murti, Isna</td>
<td>2018</td>
<td>166 subjects</td>
<td>The results of the study showed that labor pain increased with higher anxiety (b = 0.30, SE = 0.02, p &lt;0.001). Anxiety decreased with higher labor pain (b = -1.19, SE = 0.02, p &lt; 0.001) and increased with higher stress (b = 0.92, SE =</td>
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Anxiety decreased with coping mechanisms ($b = -0.31$, SE$ = 0.08$, $p < 0.001$) and parity ($b = -0.86$, SE$ = 0.37$, $p < 0.001$). Stress decreased with better coping mechanisms ($b = -0.48$, SE$ = 0.08$, $p < 0.001$), higher family income ($b = -0.16$, SE$ = 0.04$, $p < 0.001$), parity ($b = -2.13$, SE$ = 0.36$, $p < 0.001$), and stronger family support ($b = -0.22$, SE$ = 0.06$, $p = 0.007$). Coping mechanisms improved with parity ($b = 1.39$, SE$ = 0.33$, $p < 0.001$) and strong family support ($b = 0.46$, SE$ = 0.06$, $p < 0.001$).

The results showed a decrease in the average value of anxiety 5.50 and pain 1.33 with a significance value of anxiety 0.000 and pain 0.002 which can be concluded that H0 is rejected, meaning that there is a decrease in anxiety and labor for primiparous mothers during labor, one active phase by giving murottal Al-Qur’an surah Ar-Rahman. Murottal Al-Qur’an is a good distraction as a distraction, because it can trigger the release of endorphins naturally and balance brain waves so that listeners can get a positive response in the form of comfort that helps in dealing with anxiety and labor pains.

The results showed that there was a significant difference in the level of labor pain (pv = 0.001) before and after murrotal Qur’an therapy (pv = 0.001). In the classical music therapy group, there were differences in the level of labor pain (pv = 0.002) before and after being given classical music therapy.
DISCUSSION

Labor pain is the body's defense mechanism that arises when body tissues are damaged by eliminating painful stimuli in the body. Labor pain is a physiological aspect for mothers in labor, but most women consider pain during labor to be the most intense pain that every woman feels. Although pain during labor is not a pathological process, normal labor is still imagined as a very painful process.

The results of the study indicate that the difference in labor pain in each group to Muottal Al-Qur'an therapy is caused by the respondent's perspective. This perspective is related to the psychological condition of the respondents. Labor pain is unique and varies for each individual because labor pain is not only a physical condition, but also the psychological condition of the mother at the time of delivery. One of these psychological conditions is excessive fear and anxiety that will cause or even aggravate pain due to physical conditions in childbirth.

Women who gave birth after listening to Qur'anic murottal therapy, most of the very severe pain and pain in labor during the active phase were reduced to moderate, and most of the moderate pain in the mother during the active phase was reduced to mild pain. Distraction that focuses the patient's attention on something in labor pain can be a successful strategy. A person who is less aware of pain during labor will have less irritation and more tolerance for pain during labor. Distraction is thought to reduce pain perception by stimulating a decreased control system, so that pain stimuli sent to the brain are reduced.

By listening to muottal Al-Qur'an, the pain felt by the mother during labor will be reduced because muottal Al-Qur'an will cause changes in electric current in the muscles, changes in blood circulation, changes in the heart, assess, and blood levels in the skin. Before she received muottal Al-Qur'an therapy, her attitude was very aggressive, such as...
yelling at those around her, unable to respond to the midwife's advice to relax with deep breaths and unable to stop herself from screaming. However, after undergoing murottal Koran therapy, the mother's aggressive actions were slightly reduced, such as rarely shouting and being willing to take the midwife's advice to relax by taking deep breaths.  

Research from Lilin and Hesti (2017) showed relaxation or reduction of reflective nerve disorders resulting in loosening of the arteries and an increase in blood levels in the skin accompanied by a decrease in heart rate. Murottal Al-Qur'an therapy works on the brain. When murottal Al-Qur'an is read or listened to, the brain will produce neuropeptides. The substance will stop the receptors in the body and will provide feedback in the form of pleasure and comfort. The recitation of the Qur'an contained in this murotatal therapy can reduce stress hormones, activate natural endorphins, increase feelings of relaxation, and divert attention from fear, anxiety and tension, improve the body's chemical system so that it lowers blood pressure and slows breathing, heart rate, pulse, and brain wave activity.

Reading or listening to the Koran will have a relaxing effect, so that blood vessels and heart rate decrease. Murottal Al-Quran therapy if given to people or patients will generate sound waves and encourage the brain to produce chemicals called neuropeptides. This molecule will affect the receptors in the body so that the body will feel comfortable. The Qur'an functions as a physical and psychological recovery system known as syifa' which means medicine, healer and antidote. Al-Qur'an therapy provides an adjuvant non-pharmacological effect in treating pain. The murottal vibration of the Qur'an will enter the body and change the resonance, both particles and body fluids. Resonant vibrations stimulate brain waves and activate pain reduction pathways.

North American medical research confirms that reading the Qur'an or listening to it can reduce tension on the nervous system spontaneously. Furthermore, gradually those who listen become calm, relax, and recover from physical complaints. The holy verse of the Qur'an that is read to people who are physically ill will get healing from illness. Healing methods with the Qur'an in two ways, namely reading or listening and practicing its teachings. These two methods can reduce and cure various diseases and provide great rewards for those who practice them.

According to a research Geisser M, Robinson M, Miller Q, found that 90% of women experienced pain associated with 37% moderate pain. Maternal pain in labor has many factors, ranging from family support, age, parity and perceptions of labor pain that have a significant effect on the pain felt. Reading the Qur'an can reduce stress hormones, activate natural endorphins, increase feelings of relaxation, and divert attention from fear, anxiety and tension, improve the body's chemical system. It has a great impact on lowering blood pressure and freeing up breathing, heart rate, pulse, and brain wave activity. This slower breathing rate is excellent for calmness, emotional control, deeper thinking, and a better metabolism.

Murottal is able to stimulate the parasympathetic nervous system which has the opposite effect to the sympathetic nervous system. It will lead to a balance in the two autonomic nervous systems. This is the basic principle of response, namely the balance between the sympathetic nervous system and the parasympathetic nervous system. With murotatal therapy, the quality of one's awareness of God will increase, whether the person knows the meaning of the Qur'an or not. This awareness will lead to total submission to Allah SWT, when the brain is in a state of energy at a frequency of 7-14HZ which is called alpha waves.
Pain involves activation of the sensory nervous system and physiological responses to the body, stimulation of nociceptors. Pain will affect changes in pulse rate. Increased pulse rate stimulated by nociceptors due to stimulation of the vascular system, so that it can increase peripheral resistance and increase pulse rate. The decrease in pain intensity in this study was caused by the relaxing effect of murottal therapy. The Koran that is played will provide a relaxation effect of 65%. Quran recitation therapy is proven to activate body cells by vibrating sound into waves that are captured by the body, reducing pain receptors for stimulation and stimulating the brain to release natural endogenous opioid analgesics. Opioids are permanent to block pain nociceptors. The recitation of the Qur'an also has a disturbing and calming effect on the patient's labor pain when the mother is in the active phase of labor.

Suras of the Qur'an that were heard in the study by Handayani et al., (2016) is the letter Ar-Ra’du verse 28, Surah Al-Baqarah verse 289 and Surah Asy Syu'ara verse 80. The chanting of the letter Ar-Rahman is able to reduce pain during childbirth. The chanting of the letter Ar-Rahman is part of the human voice which is an amazing healing instrument. While in research by Hofiah (2015), Surah Ar-Ra'du verse 28 explains that those who believe and their hearts are at peace with the remembrance of Allah. "Remember, only by remembering Allah does the heart find peace." The meaning of Surah Al-Baqarah verse 286 in that study as follows: "Allah does not burden a person but according to his ability. He gets a reward (from the good) that he works for and he gets the punishment (from the evil) he does. (they pray): O our Lord, do not punish us if we forget or we are guilty. Our Lord, do not you burden us with such a heavy burden. You burdened those before us. O our Lord, do not carry on us what we cannot bear. Forgive us, forgive us, and have mercy on us. You are our helper, so help us against the disbelievers." Surah Asy Syu'ara verse 80 explains that "And when I am sick then He (Allah) heals". The letter that was heard in the study contained a request to Allah SWT to reassure the heart and minimize the pain suffered, so that the respondent not only got peace of mind, but at the same time prayed to Allah SWT for the smooth delivery process.

**Stress and Anxiety**

Labor pain is a complex problem for every mother who gives birth, both primary and multiple. The main factor causing labor pain is the onset of uterine contractions that cause cervical dilatation and uterine ischemia. This process causes less oxygen to flow to the uterine area. Another factor that affects labor pain is stress. If the mother is not able to cope with what she is experiencing, the pain she feels will also increase.

Anxiety is fear or worry in certain situations that can cause anxiety because of a threatening situation that creates a sense of confidence in dealing with something. Anxiety is a natural thing, but if it causes interference it will hinder a person's function in life. The feeling of tension during childbirth causes the uterine muscles to contract when the mother holds her breath. This will hinder the delivery process due to stress, both for the mother and the fetus. In addition, it also inhibits the oxygen needed by the mother and fetus. Tension will also make labor more painful, so the mother needs anesthesia to deal with the pain.

Reported that anxiety has a major influence on the quality and intensity of the pain experience. Anxious patients are more sensitive to pain: the pain threshold is reduced as anxiety increases and causes pain to be felt. The fear of pain or the anticipation of a high level of pain will increase the level, which will lead to a continuous loop, because increasing the value increases pain sensitivity.
Anxiety is a common condition that accompanies severe pain. The function of pain is as a danger signal that is given information about something wrong in the body that needs attention. In labor pain, this will cause the patient to focus on labor pain. This causes the patient to become anxious and adds to the pain. Anxiety and labor pains have a direct impact on the mother and will have long-term risks to the health of both mother and baby. In addition to causing low birth weight, preterm labor, and prolonged labor, anxiety can also increase the risk of postpartum depression.

Supporting Environment and Individuals
The environment and individual support are one of the factors that influence labor pain. When the mother experiences pain, it is important to help the mother feel comfortable so that when the mother's comfort is obtained, the mother's pain will also decrease. Furthermore, family support is support from parents/relatives/closest people in the form of helping or giving attention to mothers who are experiencing labor pain. Giving birth to a baby is normal for every woman. However, most women consider childbirth to be the scariest thing in their lives. Because during childbirth, mothers are faced with conditions that can endanger the lives of themselves and their babies. With family support, mothers who give birth can share their complaints and get attention so they can feel calm and comfortable in facing childbirth.

A mother who is experiencing pain should seek help from a family member or close friend for support, assistance and protection. If the family and social support is good, it will help the client and ease the burden he feels, but if the support provided by the family and social is inadequate, it will worsen the feeling of pain and increase the client's fear. In addition, with the support of the family, it will provide information to mothers who give birth about the labor process and how to minimize labor pain.

Number of Deliveries
The number of deliveries also affects maternal pain. Previous experience of pain affects the mother because mothers who have experienced the same pain will be able to control themselves so they can adjust to the pain they feel. Most (55%) mothers experienced moderate pain before receiving murotal Al-Qur'an therapy.

In this case, women who have never given birth are called primiparas and women who have given birth are called multiparas. The large number of children affects the health of the mother. There is a higher danger in the first birth than in the second or third birth. Primiparous women who have never experienced childbirth will cause fear and worry about childbirth. A second or third birth is generally safer, but in the fourth and subsequent births, the risk of infant and maternal death is higher for both mother and baby.

Subjective Experience
The meaning of pain is based on the client's condition and interpretation of the meaning of pain. Every mother who gives birth is different in dealing with pain. Labor pain is a subjective experience of physical sensations associated with uterine contractions, cervical dilation and effacement, and fetal descent during labor. Age also affects a person's perception of pain. Pain perception increases with age, for example as a person ages, understanding of pain increases in mothers in labor.

Every mother has her own way of dealing with labor pain, because everyone's pain threshold is different and very subjective. Some mothers do not feel nauseous, only their stomach feels tight. But there are also those who feel unable to endure pain. Various responses that occur are in the form of self-protection from the...
pain of childbirth. Mother's thoughts about childbirth which will always be followed by pain will increase the work of the sympathetic nervous system. In these situations, the endocrine controllers of the emergency, such as the adrenal, thyroid and pituitary (control centers), secrete their respective hormones into the bloodstream to prepare the body for an emergency situation. As a result, the autonomic nervous system allows the adrenals to influence the system on the hormone epinephrine. The majority of the results showed the expected results of murottal Al-Qur'an on stage I labor pain. However, not all patients who received murottal Al-Qur'an therapy were able to cope with labor pain well. From research results showed that there were 5 respondents who did not experience an increase or decrease in pain levels. This can be caused by several factors such as the lack of supportive individuals and environmental factors that can trigger maternal pain in labor.

CONCLUSION

There is an effect of giving murottal Al-Qur'an therapy to decrease the intensity of pain in the first stage where mothers give birth after receiving murottal Al-Qur'an therapy, the pain scale is lower than mothers who give birth before receiving murottal Al-Qur'an therapy. As an effort to reduce the intensity of labor pain, health workers, especially midwives, should improve the quality of delivery services, by providing services that are in accordance with the wishes of the patient, because this can reduce worries both from the family and the mother who gave birth. Family support is also very helpful in reducing the intensity of pain during childbirth. Maternal calm and comfort during labor are also important in influencing the reduction of labor pain.

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