VENESS OF MUSIC THERAPY IN REDUCING LOW BACK PAIN AMONG PREGNANT WOMEN THIRD TRIMESTER

Murbiah¹, Salsabila², Husin³ Santhna Letchmi Panduragan⁴
¹²Program Studi Ilmu Keperawatan IKesT Muhammadiyah Palembang
³Program Studi Ilmu Keperawatan STIK Bina Husada Palembang
⁴Lincoln University College, Malaysia

Corresponding Email: murbiah.husin@gmail.com

ABSTRACT

Background: Pregnancy is a period that starts from conception to the birth of the fetus. Third trimester of pregnancy, which is the last 3 months of pregnancy which starts from the 28th week to the 40th week. (Setiawati et al., 2019). Physiological changes that occur during pregnancy have pathways that are pathological for pregnant women. Complaints in pregnant women include back pain which is characterized by the enlargement of the uterus affecting the center of gravity, stretching out and bandaging the abdominal muscles, changing body postures, and putting pressure on the back. Therapy Listening to music can produce endorphins (a morphine-like substance supplied by the body which can reduce pain) which can inhibit the transmission of pain impulses in the central nervous system, so that the sensation of pain can be reduced

Objective: To determine the effectiveness of the music therapy to reducing low back pain on pregnant women

Methodology: This study used a quantitative approach with a quasi-experimental design using a one group pretest posttest design. The sampling technique was purposive sampling in third trimester pregnant women, totaling 40 respondents. Result and Discussion: The results showed that the median pretest value was 6.00 and the median posttest value was 2.00 with a p value of 0.00 < 0.05, this indicated that there was a decrease in back pain before and after the classical music therapy.

Conclusion: Mozart classical music therapy has an effect on reducing back pain in third trimester pregnant women.

Keywords: low back pain, music therapy, pregnant third trimester
INTRODUCTION

Pregnancy is a period that starts from conception to the birth of the fetus. Third trimester of pregnancy, namely the last 3 months of pregnancy starting from the 28th week to the 40th week. (Setiawati et al., 2019). In the third trimester pregnant women will experience physiological and psychological changes which are known as the waiting period. Awaiting the arrival of her baby as a part of herself, pregnant women can’t wait to see their baby soon. This time is also a time to prepare for birth and position as a parent such as focusing attention on the birth of a baby.

Physiological changes that occur during pregnancy have a pathological impact on pregnant women. This physiological change begins when the nidation process occurs, some women's bodies respond to it as a foreign body. Young pregnant women will feel nauseous, vomiting, feverish and weak. This feeling of nausea and vomiting will decrease until the first trimester ends. In the second trimester, the body has started to adapt and the feeling of nausea and vomiting has started to decrease. However, in the third trimester, complaints caused by abdominal enlargement, anatomical changes and hormonal changes will cause complaints in pregnant women (Venkata & Venkateshiah, 2009).

These complaints include back pain characterized by the enlargement of the uterus affecting the center of gravity, stretching out and weakening the abdominal muscles, changing body postures, and putting pressure on the back. Being overweight certainly greatly affects the muscles to work more, causing stress on the joints. Pregnancy hormones can loosen the joints and ligaments that run from the pelvis to the spine. The greater the gestational age, the greater the number of pregnant women who experience back pain. The prevalence of back pain in pregnant women is more than 50% in the United States, Canada, Iceland, Turkey, and Korea. Meanwhile, in non-Scandinavian countries, such as North America, Africa, the Middle East, Norway, Hong Kong and Nigeria, the prevalence is higher, ranging from 21% -89.9% (Anshari (2010) in essence 2015).

According to Apriliyani's research (2015), the prevalence of pregnant women experiencing low back pain in various regions of Indonesia reaches 60-80% (in Wardhani, 2017). In Indonesia, it was found that 68% of pregnant women experienced moderate intensity back pain, and 32% of pregnant women experienced mild intensity back pain (Sinclair, 2018). In Indonesia, there are 373,000 pregnant women, 107,000 people (28.7%) experience back pain during childbirth. The population in Jakarta Province is 67,976 pregnant women. Meanwhile, 35,587 people (52.3%) experienced back pain during childbirth (Ministry of Health, 2018).

The impact of back pain that is not treated immediately can result in long-term back pain, increase the tendency of postpartum back pain, and chronic back pain which will be more difficult to treat or cure (Fraser, 2009). Back pain can have a negative impact on the quality of life of pregnant women due to the disruption of daily physical activities (Katonis, 2011). Back pain in third trimester pregnant women if it is not treated immediately causes disruption of the condition of pregnant
women when doing activities such as sitting, moving from bed, lifting or moving objects around and a more painful condition occurs when the pain spreads to the pelvic and lumbar areas which causes difficulty walking so that it requires crutches or other walking aids (Leung, 2012).

Listening to music therapy can produce endorphins (a morphine-like substance supplied by the body which can reduce pain/pain) which can inhibit the transmission of pain impulses in the central nervous system, so that the sensation of menstrual pain can be reduced, music also works on the limbic system which will be delivered to the nervous system which regulates the contractions of the body's muscles, so as to reduce muscle contractions (Pedak, 2007; Potter & Perry, 2005). Music has been shown to show effects, namely reducing heart rate, reducing anxiety and depression, relieving pain, and lowering blood pressure (Campbell, 2001; Dofi, Ucup, 2011) (Safitri & Purwanti, 2014).

Classical music is the essence of order and a reading on all that is good, just and beautiful. Classical music has recently been introduced and popularized after many studies have discussed and examined more deeply the positive effects of classical music on life, both for health and also for its role in learning. Classical music such as the works of Mozart, Bach, Bethoven and Vivaldi can improve memory skills, reduce stress, relieve tension, increase energy and improve memory (Vampbell, D. 2007) in (Mahatidanar, 2016). Based on the background above, the researcher is interested in conducting research on the effect of music therapy on back pain in third trimester pregnant women.

METHODOLOGY

This study used a quantitative approach with a quasi-experimental design using a one group pretest posttest design. The sampling technique was purposeful sampling in third trimester pregnant women, totaling 40 respondents. The instrument used is a numerical rating scale, standard procedures and instruments for listening to classical music. The analytical test used is the Wilcoxon analysis test.

RESULT AND DISCUSSION

Tabel 1
Low back pain Before and After Given Intervention

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Median</th>
<th>Min</th>
<th>Max</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre test</td>
<td>6.00</td>
<td>2</td>
<td>10</td>
<td>0.000</td>
</tr>
<tr>
<td>Post Test</td>
<td>2.00</td>
<td>1</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Based on table 1 it can be seen that the median value before being given the intervention was 6.00 with a minimum value of 2, a maximum value of 10 while the median value after being given an intervention was 2.00 with a minimum value of 1, a maximum value of 9 which was indicated by a p value of 0.000 (<0.05) so it can be concluded that Mozart's classical music therapy has an effect on reducing low back pain.
Music has been shown to show effects, namely reducing heart rate, reducing anxiety and depression, relieving pain, and lowering blood pressure (Campbell, 2001; Dofi, Ucup, 2011) (Safitri & Purwanti, 2014).

Therapy by listening to music can produce endorphins, a substance similar to morphine supplied by the body that can reduce pain / pain so that it inhibits the transmission of pain impulses in the central nervous system, so that pain sensations can be reduced, music also works on the limbic system which will be sent to the b2 rain nervous system to regulate contractions. the muscles of the body, so as to reduce muscle contraction (Saad & Jariyah, 2022). The duration given in providing music therapy is 5-10 minutes, while listening to music therapy the client lies in a comfortable position, while the tempo should be slightly slower, 50-70 beats / minute, using a calm rhythm, moderate music volume, can be heard when When pain occurs, the instruments that can be used are Mp3 Player and handphone (Flamboyan et al., 2015). Types of music therapy that can be used to reduce pain are classical music, traditional gamela music, instrumental music, religious music, and murottal al-Quran (Saad & Jariyah, 2022).

Classical music is the essence of order and reading in all things good, fair and beautiful. Using dynamic shifts from soft to loud rhythms or (crescendo) and from loud to soft (decrescendo), Changes in tempo with acceleration or (accelerando) and decelerations (ritardando), the use of ornaments / ornaments is reduced, the use of 3-tone chords. Making those who listen can release pain, relax, create a sense of security and well-being, release joy and sorrow, reduce stress levels (Tobing, 2017). Classical music has recently been introduced and popularized after many studies that discuss and examine more deeply about the positive influence of classical music on health research or also its role in learning. Classical music such as works by Mozart, Bach, and Beethoven is often used (Ritonga et al., 2021).

Based on the results of a study by Buglione et al., 2020, the administration of music therapy to 30 nulliparous women with a range between 37 0/7 and 42 0/7 weeks of gestation was randomized by a web-based system. Women in the intervention group were given music in labor, by listening to music through speakers from randomization to delivery. Women are given the opportunity to choose songs according to their wishes. Women in the control group received the same care during labor and delivery as in the intervention group but without music during labor.

CONCLUSION:
1. Low back pain before being given Mozart classical music therapy obtained a median value of 6.00.
2. Low back pain after being given Mozart classical music therapy obtained a median value of 2.00.
3. The difference low pain before and after the intervention was given, the difference in the median value was 4.00 with the Wilcoxon test results p value = 0.000, which means that there was an effect on giving Mozart classical music therapy on reducing back pain in pregnant women.

REFERENCE