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THE EFFECT OF MOZART'S CLASSIC MUSIC ON POSTPARTUM BLUES PREVENTION IN POST-CESAREAN SECTION MOTHERS IN ARIFIN ACHMAD HOSPITAL OF PEKANBARU

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Abstract

Postpartum blues is a disorder experienced by postpartum mothers, reaching 50-70% of all women in postpartum period. One of the alternatives given to postpartum mothers is by providing relaxation therapy using Mozart's classical music (MCM). This study aimed to determine the effect of MCM in the prevention of postpartum blues in post-secarean section (SC) at ArifinAchmad Hospital in 2019. This quasy experiment used pretest-posttest with control group study design. The samples were 30 postpartum mothers divided into two, each 15 people for the intervention group and the control group with sample selection using the purposive sampling method. The research instrument was the EPDS questionnaire to assess the psychological condition of the mother before and after the intervention. The statistical test used the dependent t-test with a significance level of 95%. The results showed that the average EPDS score for mothers who were not and were given Mozart's classical music was 8.93 ± 1.75 to 6.80 ± 1.37 and 10.13 ± 2.32 to 4.47 ± 1.59 , respectively. Therefore, there was an influence of MCM on prevention of postpartum blues with a p value of 0.000 ($p < 0.05$). It is expected that midwives should know the effectiveness of MCM as a non-pharmacological method in preventing postpartum blues.

Keywords : Postpartum Blues, Classical Music, Mozart

INTRODUCTION

Postpartum period is a process of adaptation experienced by mothers and families due to various changes that occur both physically, psychologically and family structure that requires time to adjust. (Murray & McKinney,2007). A Postpartum mother will experience several physiological adaptations and psychological adaptations. The physiological adaptation process includes changes in vital signs, hematology, cardiovascular system, urination, digestion, the musculoskeletal system, endocrine system and reproductive organs. Meanwhile the psychological adaptation process of parents to their role includes three adjustment phases known as the dependent phase (taking in), the dependent-independent phase (taking hold), and the interdependent phase (letting go) (Pilitteri,2007; Bobak et al.,2005).

Some mothers succeed through a process of self-adaptation well, but some others do not succeed through it so they experience a psychological disorder known as Postpartum Blues. Postpartum blues is a disorder experienced by postpartum mothers due to the mother's inability to make adjustments to the birth of her baby, which is usually evident on the first day until the fourteenth day after labor and reach its peak on the fifth day by showing some symptoms including of mild depression such as crying easily, feeling full of responsibility, fatigue, unstable mood swings and lack of concentration. In addition, mothers will become irritable and experience eating and sleep disorders (Perry et al, 2010).

The occurrence rate of post-partum blues in Asia is quite high ranging from 26-85% while in Indonesia reaching 50-70% of all women in postpartum period (Fatimah et al,2012). The research conducted by Misrawati et al (2014) at ArifinAchmad Hospital in Pekanbaru found that 61.9% of Post Partum mothers are at risk of experiencing Post Partum Blues and 16.7% have Post Partum Blues. The cause of post-partum blues it is allegedly influenced by hormonal factors, demographics, pregnancy and childbirth experiences, psychosocial background, family support and anxiety (Nirwana, 2011). Besides

being caused by hormonal changes, the type of labor experienced is also one of the factors causing external to the occurrence of Postpartum Blues.

Research conducted by Dirksen and Andriansen shows that the use of some medical technologies (such as Caesarea and Episiotomy) in labor can lead to Postpartum Blues (Mariati& Wahyuni,2011). Labor with Sectio Caesarea can cause concern in postpartum mothers such as recovery time with the Sectio Caesarea method can take longer than normal labor, the mother does not have her Golden Hours with her baby, and subsequent pregnancies will be at high risk. If the postpartum blues is not treated seriously, it will develop into postpartum depression and the most severe conditions can be postpartum psychosis. Postpartum blues often cause interruption of mother and child interaction, and interfere with the attention and guidance that babies need to develop properly (Ishikawa et al.,2011).

One of the ways to prevent post partum depression or post partum psychosis is to provide good treatment during postpartum mothers. There are several alternative therapies that can prevent postpartum blues and these can be done throughout the childbearing period such as psychoeducational therapy, biofeedback therapy, massage therapy, relaxation therapy and music therapy. One of the alternative therapies mentioned is relaxation therapy which can make someone become more relaxed (Djohan,2006). This type of therapy consists of yoga, meditation, music and massage. Massage therapy can be used to reduce stress but not to deal with depression, while yoga therapy, meditation and music can reduce depression. (Gayle & Zieman,2005).

Music therapy has a good influence because it is universal which gives a sense of comfort and entertainment. The music will suppress the release of epinephrine, norepinephrine, and dopamine. This hormone are a stress hormone. Mental problems such as stress decrease, and calm increase so that it causes a person to relax (Mami,2014). From several studies on the influence of various types of classical music, many of the researchers advocate Mozart's classical music because mozart classical music is one type of music that has extraordinary magnitude in the development of health science. When compared to other classical music, melody and high frequency in classical music mozart able to stimulate and empower creativity and motivation in the brain. (Dofi,2010; Sari & Adilatri,2012).

The use of EPDS is still not widely applied by midwives in providing care for postpartum mothers especially in Post sectio caesarean mothers. Many health practitioners assume that in the puerperium there will always be physiological things, so they ignore the possibility of problems/complications that will occur. In fact, one of the many possible problems that can occur during the puerperium is a psychological problem. Therefore it is very important to implement the use of EPDS so that health workers can detect early signs that lead to Postpartum Blues in mothers so that they can provide treatment/therapy quickly and appropriately. The incidence of postpartum blues in Indonesia is still not widely documented in hospitals. Therefore it is necessary to apply EPDS to every puerperal mother. Besides being easy to apply EPDS is also it can makes us as a early detection tool that is closely related to the role of the Midwife.

ArifinAchmad Hospital is a Referral Hospital for all Regencies/Cities of Riau Province. The incidence of Caesarean Sectio at ArifinAchmad Regional Hospital in Riau Province was quite high in 2015 with 662 people, in 2016 as many as 579 people and in 2017 there were 524 people. Based on preliminary studies conducted by researchers on December 17, 2018 in Camar Room I of ArifinAchmad Hospital through the EPDS Questionnaire, it was found that 3 out of 5 postpartum caesarean mothers had EPDS scores leading to postpartum blues. Based on this, researchers are interested in conducting research on the Effect of Mozart Classical Music on Prevention of Postpartum Blues on Post Sectio Caesarea Women in ArifinAchmad Hospital in Riau Province.

I. METHODS

This quasy experiment used pretest-posttest with control group study design involving two groups. The population of this research was all postpartum mothers who had gone through Caesarean Sectio in Camar I Room at ArifinAchmad Hospital Pekanbaru. The samples were 30 postpartum mothers devided into two, each 15 people for the intervention group and the control group with sample

selection using the purposive sampling method and fulfilled the inclusion criteria, which was Age >19 years to 35 years, Postpartum Mother with Sectio Caesarea 8-12 hours, did not have hearing disorder, can speak Indonesian, and Mother without certain diseases.

The data collection method was measured by EPDS questionnaire obtained directly from respondents who are the objects in this study on day 1 and day 3. Music therapy is given on day 1 post partum once a day until day 3 postpartum using Headphones and MP3 Players for ± 30 minutes. On day 3, post partum blues symptoms were measured again using the EPDS questionnaire. The research instrument was the EPDS (Edinburgh Postnatal Depression Scale) questionnaire that had been tested for validity and reliability. Processing and analysis of data using computerization (SPSS). The statistical test used the dependent t-test with a significance level of 95%.

II. RESULTS

Based on the results of research from 30 respondents who have been conducted from January to March 2019, the results are:

Table 1. Average EPDS Scores on Postpartum Caesarean Post-Sectio Mother Before and After Without Mozart Classical Music Therapy at ArifinAchmad Hospital Pekanbaru.

Treatment	Variabel	N	Mean	SD	CI (95%)	
					Low	Up
Control	Pretest	15	8.93	1.751	7.96	9.90
	Posttest	15	6.80	1.373	6.04	7.56

Table 1 shows that the average EPDS score in the Postpartum Caesarean Mother Postpartum group without being given Mozart Classical Music Therapy was $8.93 \pm 1,751$ to $6.80 \pm 1,373$.

Table 2. Average EPDS Scores in Postpartum Caesarea Postpartum Women Before and After Giving Mozart Classical Music Therapy at ArifinAchmad Hospital Pekanbaru

Treatment	Variabel	N	Mean	SD	CI (95%)	
					Low	Up
Intervences	Pretest	15	10.13	2.32	8.85	11.42
	Posttest	15	4.47	1.59	3.58	5.35

Table 2 shows that the average EPDS score in the Postpartum Caesarean Postpartum mother group before being given Mozart Classical Music Therapy is $10.13 \pm 2,326$ and after being treated it is 4.47 ± 1.598 .

Table 3. The Difference in Average EPDS Scores after Intervention on Postpartum Caesarea Postpartum Mother who was given Mozart Classical Music with No Mozart Classical Music given at ArifinAchmad Hospital January - March 2019.

Treatment	N	Mean Rank	SD	95 % CI		P Value
				Low	Up	
Control	15	6.80	1.06	1.546	2.720	0.000
Intervences	15	4.47	1.67	4.738	6.595	0.000

Table 3 shows that from 15 Caesarean Postpartum mothers who were not given Mozart Classical Music had a higher mean rank of 6.80 compared to Caesarean Postpartum Mother with given Mozart Classical Music which was 4.47, which means that the average decrease in EPDS score of Postpartum Mother Post

Sectio Caesarea that has been given Mozart's Classical Music treatment is higher than the Postpartum Mother Sectio Caesarea who has not been given Mozart's Classical Music. The results of the Statistical Test found that the treatment of Mozart classical music therapy is effective on Prevention of Postpartum Blues with p value = 0.000 ($p < 0.05$).

III. DISCUSSION

The average EPDS score on Post Sectio Caesarea mothers who were not given Mozart Classical Music

Based on the results of this research, it is shown that of 15 post-Caesarean mothers who were not given Mozart classical music results which can be seen in table 5.1 shows the average decrease in EPDS scores from 9.23 ± 1.75 to 6.80 ± 1.37 .

The results of this study are in accordance with research conducted by Ike (2015) states that the average EPDS score in mothers who were not given Mozart Classical Music has decreased from 11.00 to 7.80. This goes in line with the research entitled "Effectiveness of music therapy on prevention of post partum blues" by Manurung, et al (2011) which states that the average EPDS score of mothers who are not given classical music is 14.00 and mothers who are not given classical music have a risk postpartum blues 7 times compared to the intervention group.

The average EPDS score which is quite high in the Control Group shows that Post Sectio Caesarean mothers tend to experience Postpartum Blues. Research conducted by Machmudah, et al (2012) explains that the possibility of postpartum depression occurs in respondents who experience labor with complications is 53.7% and 46.3% for respondents who gave birth normally. The results of other studies submitted by Ibrahim, et al (2012) also show that postpartum blues mostly occur in the type of pathological birth (caesaria) as many as 14 respondents (46.7%), whereas in physiological birth (normal) only amounts to 1 respondent (2.2%).

A decrease in EPDS scores in the control group showed that there were differences in the mean EPDS scores of post partum blues symptoms before and after. This is in line with Reeder et al. (2011), which explains that post partum blues is a temporary depression (related to hormones) that starts on the second or third day after delivery and usually disappears within 1 to 2 weeks, although some women experience mild depression for a longer period of time. Nirwana (2011) explains that after a few weeks or months later if not treated properly it can develop into a more severe disorder called Postpartum Depression.

This is certainly can be a difficult and unpleasant problem for those who experience it. Postpartum depression can turn into postpartum psychosis which has more severe symptoms because the mother who experiences it will begin to experience hallucinations, thoughts of suicide, or even try to endanger her baby.

The average EPDS score on Post Sectio Caesarea mothers given Mozart Classical Music

Based on the results of this research, it is shown that of 15 post-sectio caesarean mothers given Mozart classical music, the results can be seen in table 5.2 showing the average decrease in EPDS scores from 10.13 ± 2.32 to 4.47 ± 1.59 .

The results of this study are goes in line with research entitled "The effect of listening to music on postpartum stress and anxiety levels" by Ying Fen et al (2011) states that the provision of music therapy can reduce stress levels and postpartum maternal anxiety. Another research by Ike (2015) also showed data that there was a significant reduction in symptoms of postpartum blues by 5.87 points with a p value of 0.000 ($p < 0.05$).

1 A decrease in the EPDS score of 5.56 shows that giving Mozart classical music can provide calm and stimulate the release of brain waves known as α waves that have a frequency of 8-12 cps (cycles per second). When the α waves are released the brain produces serotonin which helps maintain feelings of happiness and helps maintain mood, by helping to sleep, feeling calm and releasing endorphin hormones

that cause a person to feel comfortable, calm, and euphoria (Aizid, 2011) and decrease Adrenal Corticotrophin Hormone (ACTH) which is known as a stress hormone (Djohan, 2006).

Classical music is one type of music that appeared 250 years ago and was created by Wolfgang Amadens Mozart. Compared to other music, melody and high frequency in classical music Mozart is able to stimulate and empower one's creativity and can provide calm, encourage, influence feelings and emotions (Lidyansyah, 2014).

During the study, the mother admitted that her mind became calm, relaxed, her anxiety was reduced, and her sleep quality improved. So it can be concluded that the provision of Mozart's classical music intervention can make a person feel relaxed, provide security and prosperity, release happiness and sadness, relieve pain and reduce stress levels, and reduce anxiety.

Effect of Mozart Classical Music on Postpartum Blues Prevention

In this study there is an Effect of Mozart's classical music on postpartum blues prevention with p value = 0.000 ($p < 0.05$). This means that there is a significant influence between the average symptoms of post partum blues in the experimental group before and after Mozart's classical music therapy. It is known that in both the experimental and control groups there was a significant decrease between the pre-test and post-test EPDS scores. The decrease in the control group was 2.13 while the decrease in the intervention group was more than 5.56.

The results of this study are goes in line with what was done by Dewi (2018) with a p value ($p < 0.05$) stating that there was a significant decrease in postpartum blues symptoms. This research is in accordance with the theory in the book by Musbikin (2009) which states that classical music has the function of calming the mind and emotional cartasis and can optimize the tempo, rhythm, melody and harmony that produces alpha waves, and beta waves in the eardrum so as to provide calm make the brain ready to receive the new input, relax effects, and sleep.

Mozart's classical music has advantages in terms of the purity and simplicity of the sound it produces. Rhythm, melody, and high frequency in Mozart's classical music can stimulate and empower the creative and motivational parts of the brain that are in accordance with the patterns of human brain cells. In addition, Mozart's classical music can also provide calm, improve spatial perception and allow patients to communicate well through the heart or mind. Mozart's classical music has distinctive effects that are not possessed by other composers, such as the powers that liberate, heal, and eliminate (Takahashi et al, 2014).

In this study it was found that some babies of mothers who gave birth with Caesarean Sectio were not Rooming In with their mothers due to the unstable baby's health condition. From 30 research samples, it was found that 10 mothers whose babies were treated in the Perinatology room had an average decrease in EPDS Score of ± 12.3 to ± 6 in the Intervention Group and ± 10.2 to ± 7.5 in the Control Group. This is goes in line with research conducted by Noor (2014) which states that Mothers of their babies at the NICU have a greater risk of experiencing various difficulties such as stress, difficult family relationships and financial problems compared to mothers of babies who are not in NICU.

Vigod et al (2010) stated that mothers of babies treated at NICU were 40% more likely to experience Postpartum Depression. Some literature states that the psychological condition of the mother of the baby treated at the NICU will be risk of experiencing Postpartum Depression ranging from 20% to 70% (Mounts, 2009). Other research conducted by Nirwana (2011) states that one factor that is suspected to cause Postpartum Blues is the Hormonal Factor. In her study states that during the Taking-In Phase (24 hours after childbirth) there is a drastic decrease in the Estrogen and Progesterone Hormones to the state before pregnancy. These sudden hormonal changes can cause depression.

During the Taking In period, mothers are generally passive and have a dependency so that they fully surrender to others for their needs. The mother is more focused on her own needs so that she cannot initiate early contact with her baby well besides the fatigue and wound pain after childbirth by means of Caesarean Sectio can also trigger Postpartum Blues caused by the physical condition of the mother who is

still vulnerable and has not recovered. At this time the role of Health Workers is needed in order to always accompany and help meet the needs of mothers such as in order to detect and prevent bleeding during childbirth, provide counseling to mothers and families on how to prevent bleeding, help mothers make early breastfeeding along with bonding attachments and always keep the baby warm by preventing hypothermia.

Susanha (2016) states that during the Hold Hold period (3-10 after giving birth) the focus is more on babies and baby care. Postpartum mothers will focus on giving milk to babies and taking care of their physical needs and the baby's. Postpartum Blues can occur 24 hours after delivery or the next few weeks so it can be difficult for mothers to care for their babies during Taking Hold due to feeling depressed, unable to care for their babies and overwhelmed. Good postpartum care can be done such as monitoring the mother's condition for signs of Postpartum Blues by giving EPDS Questionnaires accompanied by providing Alternative Therapies such as giving classical music to the Mother which can make the mother's mood to be good and calm.

In this study, post-sectio caesarea mothers given Mozart classical music had lower EPDS scores, which made mothers more relaxed, feeling safe, happy, releasing pain and reducing stress levels, which can cause a decrease in anxiety.

IV. CONCLUSIONS

Based on research that has been done, the conclusion is:

- a. The average EPDS score before and after giving Mozart Classical Music to Postpartum Caesarea Postpartum Mother at Arifin Achmad Pekanbaru Hospital was 10.13 ± 2.23 and 4.47 ± 1.59 .
- b. The average EPDS score in the control group was 6.80 ± 1.06 and in the intervention group it was 4.47 ± 1.67 .

There is an effect of giving Mozart Classical Music to the prevention of postpartum blues in Post Sectio Caesarean mothers with p value $0,000 < \alpha 0.05$.

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