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Mindfulness-Based Stress Reduction with Music Therapy Accompaniment Natural Sound Improves Breastfeeding Self Efficacy and Reduce Anxiety in Postpartum Women

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ABSTRACT

Background: The postpartum period is the period experienced by the women after the process of giving birth to the placenta and the baby. At this time postpartum women experience changes in behavior such as feeling restless, not excited, irritable, not eating, experiencing sleep disturbances and feeling anxious. So that complementary therapy is needed to overcome the problem in postpartum mothers.

Purpose: Produce a Mindfulness Based Stress Reduction model with appropriate and effective natural sound music therapy accompaniment for increase Breast feeding Self Efficacy and reduce anxiety in postpartum women.

Method: This research design used Research and Development, using the purposive sampling technique. The research samples were 34 postpartum women divided into the intervention group, 17 respondents and 17 respondents in the control group. The intervention given to the experimental group in the form of Mindfulness-Based Stress Reduction with natural sound music therapy accompaniment for eight sessions and in the control group only Mindfulness-Based Stress Reduction for eight sessions. Data were tested by Wilcoxon test and Mann-Whitney test

Results: Mindfulness Based Stress Reduction with the natural sound music therapy is feasible as an educational medium and its application is effective in increasing Breastfeeding Self Efficacy ($p < 0.001$), and reducing anxiety ($p < 0.001$) compared to the control group.

Conclusion: Giving Mindfulness Based Stress Reduction with the natural sound music therapy, it is appropriate as a medium of education for midwifery care during the postpartum period, and its application is effective in increasing breastfeeding self-efficacy and reducing anxiety in postpartum mothers compared to the control group.

Keywords: Mindfulness Based Stress Reduction, Natural Sounds, Breastfeeding Self Efficacy, Anxiety, Postpartum Women

INTRODUCTION

The postpartum period is the period experienced by the women after the process of giving birth to the placenta and the baby. Changes experienced by women after giving birth are physical, psychological, sociocultural changes. Physical changes can include changes in the uterus, genital area, vital signs and bladder. Psychological changes such as feeling restless, unmotivated, irritable, no appetite, and experiencing sleep disturbances. The sociocultural changes experienced are changes in identity, self-concept and roles[1].

Excessive anxiety, worry and unease about something is an early indication of difficulties during the puerperium. Low-

level anxiety is the body's response to stressors that can help individuals to be alert in preventing danger, at a certain level will encourage increased performance but when anxiety is very large it will become a nuisance. Anxiety that is left unchecked will have a negative impact on the psychology of the mother and increase the postpartum depression factor. Anxious mothers will experience sleep disturbances, thereby interfering with the recovery of the postpartum period and the process of breast milk production because anxiety will stimulate the brain to secrete the hormone cortisol which is able to suppress the hormone prolactin so that milk production is disrupted.[2].

Based on research conducted in England, it was found that as many as 13-40% of postpartum mothers experience anxiety[3]. Research in California, the incidence of postpartum mothers who experience anxiety reaches 17.1%[4]. Based on the results of research in Indonesia, the incidence of postpartum mothers who experience anxiety reaches 11.1%.[5]. Based on the frequency of delivery, there are 83% of primiparous postpartum mothers experiencing severe anxiety disorders and 16.6% experiencing moderate anxiety. Multiparous postpartum mothers have severe anxiety disorder 7%, moderate anxiety 71.5% and mild anxiety 21.5%[6].

The impact of anxiety experienced by postpartum mothers if not addressed immediately will cause the mother to feel anxious, not excited, feel tired, have difficulty concentrating, be irritable, increase muscle tension, and experience sleep disturbances.[7]. Postpartum women who experience anxiety and are not treated immediately will have difficulty in giving breast milk to their babies, because the mother's milk production decreases so that mothers experience insecurity in giving breast milk to their babies or low breastfeeding self efficacy (BSE).[8]. Breastfeeding self-efficacy is the mother's confidence in her ability to breastfeed consistently. BSE can be measured using the Breastfeeding Self-Efficacy Scale-Short Form (BSES-SF)[9]. Breastfeeding self-efficacy is also associated with mothers' perceptions of the adequacy of breastfeeding for their babies and higher success rates in initiation and continuation of breastfeeding. Breastfeeding self efficacy makes mothers think positively when facing breastfeeding problems and face challenges in a more positive and efficient way[10].

The low BSE affects the behavior of mothers in giving exclusive breastfeeding to their babies. Babies who are not exclusively breastfed will experience growth and development[11]. This is in line with previous research which stated that as many as 58.8% of infants experienced less normal growth because they did not consume colostrum at the beginning of their growth.[12]. In addition, it also has an impact on the risk of disease such as upper respiratory tract infection, diarrhea and stunting in infants so that it interferes with their growth and development[13].

Some efforts made to address the problem of anxiety in postpartum women and the low confidence to be able to breastfeed their babies were carried out pharmacologically and non-pharmacologically (complementary). Pharmacologically, this is done by administering antianxiety drugs, namely: group of drugs to treat anxiety disorders, panic attacks, or excessive fear and worry. On the other hands, giving this drug can cause the risk of psychological and physical dependence and have side effects to the baby. Non-pharmacologically methods are several things that can be done to reduce anxiety, namely acupressure, Mindfulness Based Stress Reduction (MBSR) and natural sound therapy music.

Another way, researchers want to combine two interventions, using MBSR accompanied by natural sound music therapy. Natural sound music therapy is a new finding obtained from the modernization of sound recording technology and the integrative form of classical music with natural sounds. This music consists of the sound of the waves behind the ocean or the rustling of trees, and other natural sounds. This type of nature sound music tends to bring the listener closer to the natural atmosphere. This music therapy can be an alternative

choice because the music that is listened to is in the form of natural sounds without lyrics, so it is easily accepted by everyone. Listening to this music will stimulate the hypothalamus which is the center for regulating various body mechanisms, so it will affect a person's blood pressure, pulse, respiration and mood.

The purpose of this study was to construct the Mindfulness Based Stress Reduction (MBSR) model with natural sound music therapy to increase Breastfeeding Self Efficacy (BSE) and reduce anxiety efficacy in postpartum women.

METHOD

The research design that has been used was a mix method, which is a combination of descriptive and analytical research. This research design uses Research and Development (R&D), using purposive sampling technique. The research sample were 34 respondents divided into the intervention group, 17 respondents were given MBSR with eight sessions of natural sound music therapy and 17 respondents in the control group were given only eight sessions of MBSR. All respondents signed informed consent in Bahasa.

INTERVENTION

The intervention was given to the experimental group in the form of MBSR with natural sound music therapy accompaniment for eight sessions and in the control group only MBSR for eight sessions. Data were tested by Wilcoxon test and Mann-Whitney test.

ETHICAL CLEARANCE

This study received ethical approval from the committee of ethic KEPK Poltekkes Kemenkes Semarang with No. 045/EA/KEPK/2022.

RESULTS

The results of the normality test of the anxiety variables before and after were not all normally distributed with p-value <0.05, so the non-parametric test was used. Meanwhile, in the BSE variable before and after treatment, not all data were normally distributed with a p value > 0.05, so non-parametric tests were used (table 1)

Statistical test results using the Wilcoxon BSE variable in the pretest between the experimental group and the control group showed a p-value <0.05, i.e. both the experimental group and the control group had the same p-value of 0.000. This shows that the administration of MBSR with the accompaniment of natural sound music therapy in the experimental group is effective in increasing BSE in postpartum mothers. Likewise, the control group was also effective in increasing BSE in postpartum mothers (table 2).

The results of statistical tests using the Mann Whitney BSE variable in the pretest between the experimental group and the control group were significantly different, it was seen that the p-value was 0.000 (p-value <0.005), while the post-test in the experimental group and the control group was significantly different, as seen from the p-value 0.00, meaning that there was an increase in BSE in postpartum mothers after being given intervention in the experimental and control groups.

Table 3 Statistical test results using the Wilcoxon variable anxiety in the pretest between the experimental group and the control group showed a p-value <0.05, i.e. both the experimental group and the control group had the same p-value of 0.000. This shows that the administration of MBSR

with the accompaniment of natural sound music therapy in the experimental group is effective in reducing anxiety in postpartum women. Likewise, the control group was also effective in reducing anxiety in postpartum mothers. The results of statistical tests using the Mann Whitney Anxiety variable in the pretest between the experimental group and the control group were significantly different, it

was seen that the p-value was 0.000 (p-value <0.005), so for the post-test in the experimental group and the control group, there was a significant difference, as seen from the p-value 0.00, which means that there was a decreased anxiety in postpartum mothers after the intervention was given to the experimental and control groups.

Table 1: Normality test of anxiety scores and BSE scores

Variable	pretest	Post test
Anxiety	0.066 0.224	0.018 0.000
BSE	0.364 0.345	0.030 0.030

**Shapiro-wilk test*

Table 2: Test the effectiveness of BSE in the intervention group and control group

BSE Measurement	Group		
	Experiment	control	p-value
Pre test	25.65	34.71	*0.000**
Post test	55.12	55.82	*0.000**

**Wilcoxon **Mann-Whitney test*

Table 3: Test the effectiveness of anxiety in the intervention group and control group

Anxiety measurement	Group		
	Experiment	Control	p-value
Pre test	103.88	104.06	*0.000**
Post test	61.94	75	*0.000**

**Wilcoxon **Mann-Whitney test*

DISCUSSION

The results of the effectiveness test of paired data in table 2 using the Wilcoxon test on the BSE variable shows that the mean posttest value in the control group (55.12) is higher than the intervention group (55.82) because the mean pretest value is higher in the control group (34.71) compared to the experimental group (25.65) while the p-value in the experimental group before and after treatment there was an increase in BSE with a p-value of 0.000 (p <0.05) which means that the provision of MBSR with natural sound music therapy was effective in increasing the BSE of postpartum mothers in the intervention group and the control group. Several studies have shown that breastfeeding as early as possible can be influenced by low BSE (mother's confidence in her ability to breastfeed her baby), so that BSE of a postpartum mother needs to be considered because a high level of self-efficacy in the postpartum period has a strong role in supporting breastfeeding.[14].

MBSR with the accompaniment of this music will stimulate the hypothalamus which is the center for regulating various body mechanisms, so that it will affect a person's blood pressure, pulse, respiration and mood so that it can reduce anxiety and increase postpartum maternal BSE. and mother's self-efficacy[15]

The results of the paired data test (table 3) using the Wilcoxon test stated that there was an effect of the application of the MBSR model on postpartum maternal anxiety in both groups

with p <0.05. The average value of anxiety in the intervention group before treatment was in the moderate category and after the treatment was in the normal category, while the average value for anxiety in the control group before the treatment was in the moderate category and after the treatment was in the mild category. This means that anxiety before and after treatment in both groups gave significant results, but had more effect on anxiety after treatment in the intervention group.

This study is in line with research result previously which stated that the MBSR program has proven to be able to reduce anxiety levels in participants. Based on the activities provided in the MBSR program, the participants felt the benefits in dealing with the symptoms of anxiety experienced during their daily activities as new students. Participants benefit from various activities in the MBSR program, such as introduction to stress-related, mindfulness, and meditation techniques through psychoeducation and practice practice. Overall, all participants experienced a decrease in anxiety after the MBSR program was completed.[16]

CONCLUSION

Giving mindfulness based stress reduction with the accompaniment of natural sound music therapy is effective for increasing Breastfeeding Self Efficacy and reducing anxiety for postpartum women.

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