EFFECT OF NATURE SOUNDS MUSIC THERAPY DURATION ON BLOOD PRESSURE AMONG PRIMIPAROUS POSTPARTUM WOMEN

By
Yulinda Laska¹, Erika Fariningsih², Sherly Mutiara³
¹,²,³Midwifery Study Program, Awal Bros Batam Health Science College
Email: yulinda2laska@gmail.com

ABSTRACT

Background: Postpartum blues rate for Asia is between 26-85%, while the prevalence in Indonesia is 50-70%. All postpartum women can experience stress, almost 80% of primiparous women experience feelings of sadness after childbirth. Stress can stimulate the sympathetic nerves to trigger the work of the heart and can trigger increased blood pressure. Music raises changes in brainwave status, stress hormones and affects the cardiovascular system. Nature sounds music is music that has a slow tempo and may cause relaxed and comfortable feelings.

Objective: To prove the effect of natural music therapy duration on blood pressure among primiparous postpartum women.

Method: This study used a true experimental design (pretest-posttest control group design). The sampling technique used Simple random sampling. The respondents of this study were primiparous postpartum women amounted to 39 mothers. The samples in this study were divided into three groups namely the treatment group of music therapy with 15 minutes duration, the treatment group of music therapy with 30 minutes duration and the control group. Analysis to test the effect of duration of nature sounds music on primiparous postpartum women used One-way ANOVA and Kruskall Wallis test

Results: The result of study analysis showed that there was differences between systolic blood pressure and diastolic blood pressure with p-value 0,010 and 0,009 (p value <0,05)

Conclusion: There was an effect of duration of natural music therapy on blood pressure

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Corresponding Author:
Yulinda Laska
Midwifery Study Program, Awal Bros Batam Health Science College
Email: yulinda2laska@gmail.com

1. INTRODUCTION

In Indonesia, maternal and child health is a priority of development, one of the ways to improve the development is improving maternal health, include in during the puerperium (postpartum). In postpartum period the mother's health is often compromised because during this period women experience physical and psychological changes, in addition of parenting role is a new role which requires an adaptation process [1]. In this adaptation process the mother will experience psychiatric symptoms, but not all mothers can be succeed in the adaptation of herself, mothers who are not able to adapt themselves often experience psychological disorders (postpartum stress) [2].

All postpartum women most likely to experience this syndrome that is experience of stressful conditions, almost 80% of new mothers experience sad feelings after childbirth [3]. In Indonesia, the incidence of postpartum stress is
RESULT AND DISCUSSION

The study results in Table 1.2 showed obtained p-value of 0.010 and 0.009 the p-value was <α (0.05), it can be concluded that there was affect of nature sounds therapy duration on systolic blood pressure and diastolic blood...
pressure. So, the duration of the nature sound music gave effect on the difference of systolic blood pressure and diastolic blood pressure.

This study is in accordance with the study conducted by Eko about the influence of nature sounds music on blood pressure among pregnant women. The study conducted on pregnant women, in Sumenep, obtained the result that more than half of pregnant women (55.5%) who received nature sounds music therapy experienced decreased blood pressure compared to the control group, and the statistical test obtained a p-value of 0.029 < 0.05, which can be concluded that there was an effect of giving nature sound music to the blood pressure among pregnant women [12].

The result of Post Hoc test on systolic blood pressure variable showed the difference of effect between music 30 minutes duration group and the control group with p-value of 0.145, p-value > α (0.05), so it can be concluded that there was no significant effect of 30 minutes duration on systolic blood pressure among primiparous postpartum women, and on the difference of effect between the 15 minutes duration group and the control group the p-value was 0.001 < α (0.05), it can be concluded that there was a significant effect of 15 minutes duration on systolic blood pressure among primiparous postpartum women.

The study result is in line with previous studies suggesting that music therapy could improve systolic blood pressure (−6.58 mmHg) compared to the control group, and might reduce systolic blood pressure by 6 mmHg in hypertensive patients, a decrease of 5 mmHg might reduce the risk of stroke by 13% [13]. Several studies have shown that a decrease in the means of systolic and diastolic blood pressure could reduce the risk of mortality from ischemic heart disease or stroke [14].

Post hoc test result on diastolic blood pressure variable obtained p-values difference between 15 minutes music duration and control group of 0.012, p-value <α (0.05), hence it can be concluded that there was significant effect of 15 minutes duration on blood pressure among primiparous postpartum women, and at 30 min duration the difference with control group was 0.219, p-value > α (0.05), it can be concluded that there was no significant effect of 30 min duration on systolic blood pressure among primiparous postpartum women. Listening to 15 minutes of music therapy could affect systolic blood pressure and diastolic blood pressure. The short music therapy also had a positive effect on some patients [15].

The result of Post Hoc test on systolic blood pressure variable showed the difference of effect between the 15 minutes duration group and the control group with p-value of 0.145, p-value > α (0.05), so it can be concluded that there was no significant effect of 30 minutes duration on systolic blood pressure among primiparous postpartum women, and at 30 min duration the difference with control group was 0.219, p-value < α (0.05), it can be concluded that there was a significant effect of 15 minutes duration on systolic blood pressure among primiparous postpartum women.

The study result is in line with previous studies suggesting that music therapy could improve systolic blood pressure (−6.58 mmHg) compared to the control group, and might reduce systolic blood pressure by 6 mmHg in hypertensive patients, a decrease of 5 mmHg might reduce the risk of stroke by 13% [13]. Several studies have shown that a decrease in the means of systolic and diastolic blood pressure could reduce the risk of mortality from ischemic heart disease or stroke [14].

Music can directly affect the working of our muscles. Heart rate and respiration can increase or become normal automatically depending on the music performed. The relaxing effects of music therapy and slow deep breathing can widen and relaxes blood vessels, activate the afferent impulses of baroreceptor to reach the heart center that will stimulate the activity of the parasympathetic nervous system and inhibit central sympathetic (cardioaccelerator), causing systemic vasodilatation which can accelerate blood circulation throughout the body, decrease heart rate and heart contraction power [20].

A decrease in blood pressure can be achieved by way of lifestyle modifications such as weight loss, adoption of the DASH diet (Dietary Approaches to Stop Hypertension), restriction of daily salt, physical activity, limitation of the consumption of alcohol, and stop smoking, each lifestyle is capable to lower blood pressure by 5 to 20 mmHg with long period approximately a week. In this study we obtained a decrease in systolic and diastolic blood pressure up to 5 mmHg with the therapy of nature sounds music for 15 minutes / 1 time in the morning for 2 days. It can be used as an alternative option in lowering blood pressure, and the administration of this therapy not only can be given to patients who have high blood pressure, because the purpose of the provision of music therapy is to stimulate and activate the limbic system associated with emotion. When the limbic system is activated then the individual becomes relaxed. When the goal is reached the action of the hypothalamus will adjust and there is a decrease in sympathetic and parasympathetic activities [21].

4. CONCLUSION
The study results showed that there was an effect of duration 15 minutes of nature sounds music therapy on blood pressure. Recommendation to health services or maternity ward is to apply nature sounds music therapy as an alternative solution to problems, especially for primiparous postpartum women who experience emotional stress, physical stress, anxiety, fatigue and can help to improve the quality of life.

**Study Limitations**

Most of the participant of this study were have more time to rest, and each postpartum mother in different condition stress, actually used treatment in 2 days didn’t make changes to reduce blood pressure. For the next researcher, need longer time to give treatment for best result around 1 until 2 week.

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