

## Original Research Article

# The effectiveness of music therapy treatment to decrease the post-partum blues symptom at private practice midwife (BPM) in the working region of public health center (Puskesmas) IV South Denpasar

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### ABSTRACT

**Background:** The failure of post-partum mother in adapting to physical and emotional change oftentimes causes psychological disorder such as sadness, exasperation, tiredness, anger, and despair. At Denpasar City, the prevalence of post-partum blues depression based on EPDS score is 20.5%. Music therapy is an alternative to decrease emotional disturbance because music that enters pituitary gland could give response towards emotion through negative feedback on adrenal gland to suppress the release of stress hormones.

**Methods:** The method which used in this research was quasi-experiment design with the framework of one group pre-test-post-test design on post-partum mothers in the seventh day after normal labor and did not experience hearing loss. The pre-test utilized EPDS questionnaire, if there had been a symptom of post-partum blues, they were given Mozart classical music therapy for 7 days and evaluated by questionnaire on the 14<sup>th</sup> day.

**Results:** From the research on 30 post-partum blues sufferers, prior to the treatment of classical music therapy, it was found that the majority which was 24 respondents (80%) showed mild symptom with the mean value of 7.4. After the treatment of Mozart classical music, almost half of them or 11 respondents (36.7%) did not show post-partum blues symptom with the mean value of 1.4. There is an impact of Mozart classical music therapy treatment toward the decrease of post-partum blues symptom with the P value=0.00.

**Conclusions:** In conclusion, Mozart classical music therapy is effective to decrease the post-partum blues symptom from the scale of 7.4 to 1.4 with p value (0.000).

**Keywords:** Mozart classical music therapy, Post-partum blues

### INTRODUCTION

During childbirth, women will experience physical and emotional change which require self-adjustment to face her activity and new role as a mother. A mother who successfully adapts during the post-partum period could take a good care of herself and her baby. Oftentimes, mother who could not perform its role during post-partum period experiences psychological disorder such as sadness, exasperation, tiredness, anger, and despair.<sup>1</sup>

Emotional disturbance that occurs during childbirth is called post-partum blues referring to a syndrome of mild affective disorder which is usually evident in the first week after labor and reach its peak on the third until the fifth day and strike within the time range of 14 days starting after labor which is signified by some symptoms including sadness, cry, sensitiveness, anxiety, sleep and eating disorder. The exact cause of post-partum blues has not been known, but it is allegedly influenced by hormonal factor, demography, the experience of

pregnancy and labor, psychosocial background, family support and anxiety.<sup>2</sup>

The symptom of post-partum blues is often overlooked thus it is not diagnosed and properly managed which causes quite a problem and develop into a more serious condition which is post-partum depression, then continued to become post-partum psychosis. The impact of psychological disorder which is experienced by post-partum mother will lessen her interest and attraction toward her baby, mother does not respond positively to her baby, mother is not eager to breastfeed her baby thus influence the growth and development of her baby.<sup>3</sup>

The occurrence rate of post-partum blues abroad is quite high ranging from 26-85%. Globally, it is estimated that 20% women who give birth experience post-partum blues. Based on the research in Sweden, Australia, Italy, and Indonesia using EPDS (Edinburg Postnatal Depression Scale) shows that 73% of women experience post-partum blues. In Indonesia, 1 out of 10 women tends to get post-partum blues. The research which was conducted in Jakarta, Yogyakarta and Surabaya found the occurrence rate of post-partum blues is around 11-30%. At Denpasar City, the prevalence of post-partum blues depression based on the EPDS score is 20.5%.<sup>4</sup>

One of the ways to decrease post-partum blues is music therapy treatment. Music is one of the alternative therapies for curing disease and inability which are experienced by everyone. Music which is applied as a therapy could increase, relieve, and preserve physical, mental, emotional, social, and spiritual health of individual. This is possible because music has some positive features as it is universal, it provides comfort and amusement, and it is structured. Music which enters pituitary gland could give response towards emotion through negative feedback on adrenal gland to suppress the release of epinephrine, norepinephrine and dopamine hormone which altogether are called stress hormones. Mental problem such as stress is decreased, while serenity increased thus allowing one's to relax.<sup>5</sup>

Among classical music which usually becomes the reference to overcome stress and anxiety, Mozart music is the one that has notes with high frequency, wide range of notes, and dynamic tempo. Mozart music does not revive sharp and fluctuated emotion wave like Beethoven. His artwork is not rigid and flat like Gregorian chant, however, it is not too soft and soothing like lullabies. Such characteristics could make someone feels relax and calm while listening to Mozart classical music.<sup>6</sup>

Based on the result of preliminary study at Private Practice Midwife (hereafter referred to as BPM) in the working region of Puskesmas IV South Denpasar using EPDS method towards 15 post-partum mothers, it was found that 10 mothers (66.6%) tend to have mild depression symptom while taking care of their baby

which was indicated in their emotion as they easily got angry, panic, sensitive, sad and annoyed during babysitting.

## METHODS

This research was an analytic research. The design used in this research was quasi experimental with the framework of one group pretest and posttest design. In this design, the subject group which was taken from post-partum mother population who experienced post-partum blues symptoms by giving classical Mozart music therapy.

This research had been performed at independent midwife practices in the working region of Puskesmas IV South Denpasar from August until November 2017. The independent midwife practice in working region of Puskesmas IV South Denpasar consisted of six independent midwife practices which had been expected to acquire appropriate number of respondents that fits the inclusion criteria of the research.

The population of this research was all post-partum mothers who had gone through normal labor at independent midwife practice in the working region of Puskesmas IV South Denpasar. The sample of this research was post-partum mothers who had gone through normal labor at independent midwife practice in the working region of Puskesmas IV South Denpasar and experienced post-partum blues symptom on the seventh day.

The size of this research's sample was 30 people who experienced post-partum symptom and fulfilled the inclusion criteria, which was post-partum mothers on their 7<sup>th</sup> day after normal labor at independent midwife practice in the working region of Puskesmas IV South Denpasar, post-partum mothers who experienced post-partum blues, did not have hearing disorder, and willingly became the respondents of this research. The exclusion criteria were mother with SC labor and had hearing disorder. The sampling technique is a way or techniques which are used to collect sample so that the sample could represent its population. The sampling technique which was utilized in this research was quota sampling which had been determined by the author to be 30 samples.

The type of data used in this research was primary data and secondary data. Primary data in this research was measured by EPDS questionnaire on the feeling of post-partum mothers on their seventh day. Meanwhile, secondary data is the data that had been collected to support the result of this research, the source of secondary data is collected from notes, literatures, articles, and scientific writings which were relevant with the research topic. In this research, secondary data was acquired from labor registry at independent midwife practice in the working region of Puskesmas IV South Denpasar. The analysis was performed on every single

variable of this research which was respondent characteristics. The data was analyzed by descriptive statistic to obtain the result in the form of frequency distribution table either in proportion or percentage (%) from each variable which was presented with narration to explain the produced table. Bivariate analysis aimed to analyze different test and was processed by computer. The collected data was first processed by Kolmogrov test by looking at p value = >0.05, if the data was normally distributed then it would be followed by t paired test, but if it was not then Wilcoxon test would be conducted instead. For this research, Wilcoxon signed rank test was utilized.

**RESULTS**

Throughout the research from August until November 2017, there were some sample characteristics namely age, education, occupation, and parity as follow.

**Table 1: Frequency distribution of post-partum blues mother.**

Characteristic	Frequency (F)	Percentage (%)
<b>Age</b>		
Young adult	21	70
Adult	9	30
Pre-elderly	-	-
<b>Education</b>		
Low	6	20
Middle	13	43.3
High	11	36.7
<b>Occupation</b>		
Unemployed	14	46.7
Employed	16	53.3
<b>Parity</b>		
Primipara	19	63.3
Multipara	11	37.7

**Table 2: Frequency distribution before and after the treatment of Mozart classical music therapy on post-partum blues mother.**

Post- partum blues symptom	Before the treatment of Mozart classical music therapy		After the treatment of Mozart classical music therapy		Mean value (Pre)	Mean value (Post)	Deviation standard (Pre)	Deviation standard (Post)
	F	%	F	%				
No symptom of post- partum blues (0)	-	-	11	36.7	7.4	1.4	1.43	1.33
Mild (1-3)	24	80	19	63.3				
Moderate (4-6)	6	20	-	-				
Severe (7-9)	-	-	-	-				
Total	30	100	30	100				

**Table 3: Bivariate analysis on the effectiveness of Mozart classical music therapy treatment to decrease post-partum blues symptom at BPM in the working region of Puskesmas IV South Denpasar.**

Variable	Mean Value		P	95 % CI	
	Before music therapy	After music therapy		Lower limit	Upper limit
Post-partum symptom	7.4	1.4	0.00	1.43	5.48

Table 1 shows that from the sample which was post-partum blues mothers, more than half or 21 respondents (70%) were in the age of young adult, meanwhile a small part of it or 6 respondents (20%) had low education, and more than half or 16 respondents (53.3%) were employed, and more than half or 19 respondents (63.3%) were primiparas.

The univariate result as shown in Table 2, it was found that before the treatment of Mozart classical music therapy, the majority which was 24 respondents (80%) showed mild symptom with the mean value of 7.4 and deviation standard of 1.43. After the treatment of music

therapy, more than half or 19 respondents (63.3%) indicated mild symptom of post-partum blues with the mean value of 1.4 and standard deviation value of 1.33.

From the result of bivariate analysis with Wilcoxon Signed Rank Test, it was found that the variables were substantially related with p value <0.05, as shown in Table 3.

**DISCUSSION**

Based on the result of this research, it is shown that the treatment of Mozart classical music therapy is effective to

decrease post-partum blues symptom. This occurs because music treatment could stimulate the release of brain wave which is known as  $\alpha$  wave that has the frequency of 8-12 cps (cycles per second).

When  $\alpha$  wave is released, brain produces serotonin which helps to keep happiness and maintaining mood in the way it helps one to sleep, provide serenity and release depression along with endorphin which cause one to feel comfortable, calm and euphoria.<sup>7</sup>

This goes in line with the research entitled The Effectiveness of Music Therapy to Prevent Post-partum Blues which indicated an impact of music therapy on intervention group ( $p < 0.05$ ) and control group that have risk of experiencing blues 7 times larger than intervention group.<sup>8</sup>

This showed that Mozart classical music therapy is influential as the management of post-partum blues. In fact, from the control group, p value of 0.000 ( $p < 0.005$ ) was acquired. This also proved that there is difference between the average of post-partum blues before and after the treatment in the control group.<sup>9</sup>

Unpleasant feelings during post-partum period could develop into a more serious disorder which is called as post-partum depression that certainly has worse impact.

This post-partum depression could lead into post-partum psychosis in which the symptoms would be much more severe as the sufferer will experience hallucination, suicide thoughts, or even trying to harm her baby.<sup>10</sup>

Mozart classical music has pre-eminence in term of its purity and simplicity of the sound that it produces. The rhythm, melody, and high frequencies in Mozart classical music stimulate and empower on the creative and motivation part of brain that fit the pattern of human brain cells. Besides that, Mozart classical music could also give serenity, repair spatial perception and allow the patient to communicate properly through heart or mind. Mozart classical music has a distinctive effect that other composers do not have, which is the liberating, curing and relieving power.<sup>11</sup>

The intervention treatment of classical music therapy could made someone to feel relax, provide security and prosperity, release happiness and sadness, remove pain and decrease stress level, thus diminishing anxiety.

This occurs because there is an increase of serotonin and decrease of Adrenal Corticotrophin Hormone (ACTH) which is one of stress hormones. Here, we could conclude that the treatment of Mozart classical music is effective toward the decreasing symptom of post-partum blues.<sup>12</sup>

## CONCLUSION

The treatment of Mozart classical music has significant influence to decrease the post-partum symptom with p value  $< 0.05$ . The research on Mozart classical music therapy as the complementary therapy to prevent and decrease post-partum blues symptom.

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