

# EFFECTIVENESS OF MUROTTAL THERAPY ON BABIES' WEIGHT CHANGES

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## ABSTRACT

Many newborn babies have a low weight, it has a bad impact in the process of growth and development. Murottal is a recording of the sound of the Qur'an which is sung by a qori. Murottal therapy performed for several minutes or hours in a voice that sounds good can give a sense of comfort for the body to move up to be able to raise the baby's weight. The Purpose Of This Research Is To Know The Murottal Effects Of Changes In Baby Weight. This research is quasi experimental pre-test post test control group design. Samples in this study A total of 44 newborn babies, divided into two groups consisting of 22 respondents, namely the Intervention Group and the Control Group. The Intervention Group received treatment hearing murottal therapy and the control group did not receive treatment. Using the Mann Whitney statistical test. The results of the study with the Mann Whitney Statistical Test  $p: 0.630 > 0.05$ . This means that there is no average difference between the weight of infants in the intervention group and the control group. However, it only gave a change, by showing that the weight of the intervention group infants after being given a treatment was lower in body weight compared to the control group which was 2,577 grams, whereas in the control group without being treated there was more weight loss than the intervention group which was 2,750 grams. Murottal therapy has not changed statistically but there has been a change in the mean and standard deviation, so it is recommended that mothers apply Murottal therapy during the breastfeeding process using appropriate Standard operating procedures

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## Introduction

Murottal is a recording of Quran recitation which is recited by a qori' (Quran reciter). The recitation of Al-Quran physically contains the material of human voice. And a human voice is a magical healing instrument and most affordable tool [1]

A voice which sounds good can decrease the stress hormones, activate the endorphin hormone naturally, increase relaxed feeling, distract the attention from fear, anxiety, and tension, improve the chemical system of body so that the blood pressure is decreased, slow the breath down, the heartbeat, the pulse and the brainwave activity as well. The flow of breath which is deeper and slower is very good in producing peace, emotional control, a deeper way of thought, and a better metabolism. [1]

Basically almost all types of music can be used as musical therapies. But we need to know the influence of every type of music to the brain. As the types of traditional music, jazz, natural, there are not many exploration and development studies yet upon Murottal song. Murottal or the recitation of the Quran verses is the melodious of Quran recitation which can make people drown and make the heart peaceful. The Murottal therapy and the education of health upon mother's milk can increase the prolactine hormones so that the production of mother's milk can be increased. Listening to the music is an alternative option to reach relaxed situation so it can reduce stress and depression naturally. Music will stimulate hyphothalamus that it can produce relaxed feeling which later will be influential to the production of endorphin, cortisone, and catecholamine as well in the mechanism organization of body's organ [2]

Murottal is also frequently used to reduce the level of stress/anxiety. Research showed that the level of anxiety in average before having Murottal therapy to the giving birth mother in one active phase was 26.67 and was decreased to 20.52 after the Murottal therapy was given. Some other researches showed that during 2 decades, Al-Quran has been used in the medical science. Some of them revealed, the level of anxiety in average before the Murottal therapy was applied to the giving birth mother in one active phase is 26.67, after the Murottal therapy was applied it was reduced to 20,52 [3] Hear the recitation of the koran verses whith tartil can give peace of mind.[4]

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[5]state that Quranic murottal therapy is a therapy of Quranic reading which is a religious therapy where someone is read verses of Al-Quran upon for a few minutes or hours so that it gives a positive impact to one's body. According to the research that was conducted. [6] about the Murottal of Al-Quran, it was found that the time given for the murottal AlQuran was 11-15 minutes.

### Materials and Method

This research is quasi experimental pre-test post test kontrol group design. The research was tobe conducted within 12 months starting January 2018- December 2018. The duration of data collection/intervention was conducted within three months. The research was conducted in the North Polobangkeng and South Polobangkeng districts, Takalar Regency.

The population of this research was all of breastfeeding in the North Polobangkeng district and south Polongbangkeng distric, Takalar Regency. The samples are 44 breastfeeding as the research subjects that next were divided into 2 groups, one was given the treatment of Murottal therapy and health education as the intervention group and another was not given the treatment as the controlled group.

Subjects were divided into 2 groups, the intervention group were 22 infants who received murottal therapy and the control group were 22 infants who were not given murottal therapy. Murottal therapy for 15 minutes during a nursing baby with Surat Ar-Rahman with a duration of 25.54 minutes, by qori'ah H. Muammar Zainal, which is given twice a day. Midwives as field officers who have received training from researchers helped the process and ensured respondents listened to murottal therapy every day through information from text messages (SMS) and telephone as well as making visits and weighing the baby's weight once every two weeks for 3 months. This research has passed the ethics committee process with the number of ethics approval recommendations [7]

### Result

The subjects of this research was breastfeeding who live in the district of North Polobangkeng and South Polobangkeng, Takalar Regency. The result of this research gained were as follow.

Table 1. Characteristics of Breastfeeding Mothers based on Intervention and Control Groups

Characteristics	Intervention		Control	
	Frequency (n=44)	Percentage %	Frequency (n=44)	Percentage %
<b>Age:</b>				
20-35	15	68,18	20	90,90
≥36	7	31,81	2	9,09
<b>Education:</b>				
Elementary School- Junior High School	14	63,63	16	72,72
Senior High School- Undergraduate	8	36,36	6	17,27
<b>Working:</b>				
Not working	20	90,9	21	95,5
Working	2	9,1	1	4,5
<b>Parity:</b>				
2-4	19	86,36	22	100
5-6	3	13,63	0	0
<b>Total</b>	22	100	22	100

Source: Primary Data, 2019

Based on table 1 it can be seen that the ages of 20-35 years in the intervention group were 15 people (68.18%) and those aged ≥ 36 years were 7 people (31.8%). While the age of 20-35 years in the control group was 20 people (90.90%) and aged ≥ 36 years 2 people (9.09%)

Elementary school and junior high school education in the intervention group were 14 people (63.63%), high school education and undurgraduate were 8 people (36.36%). While the



education level of elementary school and junior high school in the control group were 16 people (72.72%) high school and undergraduate were 6 people (27.27%).

20 people (90.9%) did not work in the intervention group, and only 2 people worked (9.1%) and 21 people (95.5%) did not work in the control group, and 1 person worked (4.5%).

Parity 2-4 in the intervention group were 19 people (86.36%) and parity 5-6 were 3 people (13.63%). While parity 2-4 in the control group were 22 people (100%).

Table 2. Frequency distribution of sex of newborns in Takalar Regency

Variable Sex	Frequency (n=44)	Percentage %	Total (n=44)
Men	28	63,6	63,6
Women	26	36,4	36,4
Total	44	100,0	

Source: Primary Data, 2019

Based on table 2, it can be seen that newborn babies with male sex are 28 people (63.6%) and 16 people (36.4%) female sex.

Table 3. Frequency distribution of sex of newborns in Takalar Regency

Variable Birth Weight	Frequency (n=44)	Percentage %	Total (n=44)
< 2.500 gr	5	11,4	11,4
2500 – 3.800 gr	39	88,6	88,6
Total	44	100,0	

Source: Primary Data, 2019

Based on table 3 it can be seen that there are 39 normal birth weight (88.6%) and 5 low birth weight people (11.4%).

Table 4. The Difference of Respondent's Babies' Weight Based on Intervention and Controlled Group

Variable Babies' Weight (gr)	Intervention		Control	
	Frequency (n=44)	Percentage %	Frequency (n=44)	Percentage %
<2500	3	13,63	2	9,01
2500-3800	19	86,36	20	90,90
Total	22	100,0	22	100,0

Source: Primary Data, 2019

Based on table 4 it can be seen that the babies' weight of 2500-3800 grams in the intervention group were 19 people (86.36%) while the babies' weight <2500 grams were 3 people (13.63%). Birth weight 2500-3800 grams in the control group were 20 people (90.90%), and babies' weight <2500 grams were 2 people (9.01%)

Table 5. Differences of babies' weight before and after treatment in the intervention and control groups in Takalar Regency

Variable	Before Intervention (Mean±SD)	After Intervention (Mean±SD)	Wilcoxon	Change (Mean±SD)	Mann Whitney
Babies' Weight (gr) Control	3.318 ± 348,62	6.068 ± 765,56	p:0.000	2750±760,16	
Babies' Weight (gr) Intervention	3.213 ± 559,16	5.790 ± 941,58	p:0.000	2577±661,83	p: 0,63

Table 5. shows the weight of infants from the control group before being treated and after being given murottal therapy shows the average value of the Wilcoxon statistical test with p: 0.00, meaning that there are differences in the average before and after being given murottal therapy

in the control group. And shows the babies' weight of in the intervention group before the intervention was given showed an average value of  $3.213 \pm 559.16$  and after the intervention was given there was an increase in babies' weight with an average value of  $5790 \pm 941.58$ .

The babies' weight of the control group before being given treatment showed a mean value of  $3,318, 62 \pm 348, 62$  and after being given the treatment the baby's weight increased to a mean value of  $6,068 \pm 765.56$ . Wilcoxon statistical test results with  $p: 0.00$ , meaning that there are differences in the average treatment before and after treatment in the control group.

The results of the Mann Whitney statistical test showed  $p: 0.63 > 0.05$ , which means that statistically there were no differences in the mean babies' weight in the control group and the intervention group before and after given murottal. But only gives a change in the mean and standard deviation of the intervention group and the control group.

In the Babies' weight of the intervention group there was an average decrease of body weight of  $2,577 \pm 661.83$  grams in the first 3 months, and the control group had an average decrease of  $2,750 \pm 760.16$  grams. This means that in the control group there was more weight loss compared to weight loss in the intervention group.

The baby's weight in the control group before being given a higher treatment than the intervention group, but after the post test without being given treatment in the control group there was more weight loss compared to the intervention group that was 2750 grams. While the weight of infants in the intervention group before being treated was lower than in the control group, but after being given murottal therapy less weight loss compared to the control group was 2577 grams.

## Discussion

The results of the Mann Whitney statistical test showed  $p: 0.63 > 0.05$ , which means that statistically there were no differences in the mean babies' weight in the control group and the intervention group before and after given murottal. But only gives a change in the mean and standard deviation of the intervention group and the control group.

The weight of a breastfeeding baby is influenced by maternal dietary factors, the psychological state of the mother, the use of contraceptives, breast anatomy, physiology, baby's sucking, drug factors, frequency and duration of breastfeeding, oxytocin massage, music therapy, early breastfeeding initiation, breastfeeding techniques and intake vitamin A.

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This study is statistically insignificant but provides changes in babies' weight after being given murottal therapy interventions while breastfeeding. When babies hear murottal therapy appropriately and correctly according to recitation and purpose, they will get peace of mind. And directly stimulates the nerves of the baby's brain. One of the functions of neurons to regulate basic life such as heart rate and breathing in a stable state [8]. If the baby is calm while breastfeeding, the need for adequate milk is met and the baby's weight can increase. And we know that many factors affect the weight gain of breastfeeding infants including: maternal dietary factors, maternal psychological condition, use of contraceptives, breast anatomy, physiology, baby's sucking, drug factors, frequency and duration of breastfeeding, oxytocin

massage, music therapy, initiation of early breastfeeding, breastfeeding techniques and intake of vitamin A.

With baby sucking on the nipples, it stimulates sensory nerve as mechanical receptors, the stimulation is followed by the hypothalamus and then the anterior pituitary to secrete the hormone prolactin into the bloodstream. This hormone stimulates alveoli cells to make milk. The more prolactin hormone the more milk production and the adequacy of milk needs are met, and the baby's weight increases. [8]

With murottal therapy the quality of one's awareness of God will increase, whether that person knows the meaning of the Qur'an or not. This awareness will cause surrender to the totality of God, in this state the brain is in alpha waves, brain waves at a frequency of 7-14 Hz. This is an optimal state of brain energy and can get rid of stress. Murottal therapy when a baby is breastfeeding is expected to have an effect on the brain in alpha waves and an optimal state of brain energy and can relieve stress which can ultimately produce maximum hormone prolactin in the process of breastfeeding so that in the end it will be able to increase the baby's weight.

### Conclusion and Suggestion

Conclusion therapy that statistically there was no difference in the average weight of infants in the control group and the intervention group after being given murottal therapy. But it gives a change in the mean and standard deviation of the intervention group and the control group. So it is recommended that mothers apply Murottal therapy during the breastfeeding process using appropriate Standard operating procedures.

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