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## Effectiveness of Baby Massage on Weight Infants Aged 7-12 Months

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Lusi Ferawati Simanjuntak<sup>1</sup>, <sup>K</sup>Sri Dinengsih<sup>2</sup>

<sup>1, 2</sup>Midwifery, Faculty Health Science, National University of Jakarta

Correspondence author email (<sup>K</sup>): [dini\\_alba@yahoo.com](mailto:dini_alba@yahoo.com)

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### ABSTRACT

Growth and development babies depend a lot on fulfillment nutrition. A number of frequent problem happen in fulfillment nutrition difficulty eat what you can cause happening disturbance growth in babies. Prevalence difficulty eat of 33.6%, 44.5% of them suffer malnutrition light until moderate and 79.2 % of subject study has experience difficulty eat more than 3 months (Rikesda, 2018). Baby massage can increase absorption food so that baby more fast hungry and baby will more often suckle. This research aim to know influence baby massage to baby 's weight at 7-12 months on groups treatment and control. This research use quantitative study quasi experiment with design two group pretest- posttest design. Which consists of 30 infants aged 7-12 months that consisted of 15 as group intervention and 15 as group control. Retrieval technique sample use purposive sampling technique. Data analyzed using paired t-test and Independent-test. On research this obtained mark significance test results paired T-Test of 0.000 ( $P=0.000<0.05$ ). Can concluded that is influence baby weight after done massage. Research results expected can increase mother 's knowledge about importance massage baby for increase baby weight.

Keywords: Baby massage, Baby's weight, Age

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## INTRODUCTION

Growth is very important thing and one must aspect noticed in a manner Serious since age early. However matter it is very often overlooked good by power health nor surviving parents. This or usually more focus on handling moment child sick. Lots of things to do recognized and performed For optimizing grow flower child since early so no happen deviation or of course the delay not expected. <sup>1</sup>

World Health Organization (WHO) 2017 stated number incident the weight of babies in the world is still below standard that is more of 5% with prevalence underweight in asia southeast 26.9%. Whereas prevalence underweight in the world globally by 14 %. results prevalence difficulty eat of 33.6%, 44.5% of them suffer malnutrition light until moderate and 79.2 % of subject study has experience difficulty Eat more from 3 months. <sup>2</sup>

Government and government area must provide facilities and organize effort comprehensive health for child order each child obtain degrees optimal health. Comprehensive health efforts covers efforts: promotive, preventive, curative and rehabilitative, both for service health base or reference (article 44 of RI Law Number 35 of 2014 concerning Child Protection). One effort promotive that can done for overcome health child is manual technique in the form of stimulation massage <sup>3</sup>

Appropriate and adequate stimulation will stimulate brain child so that development ability movement, speech and language, socialization and independence, as well behavior and emotions in children run optimally accordingly with her age. Detection early deviation grow flower need done to use know exists possibility deviation including follow up every parental complaints to problem grow flower his son. Activity stimulation, detection, and intervention early deviation grow flower thorough and coordinated toddler will increase quality grow flower child age early and ready enter level formal education. indicator success coaching grow flower child No only improving health and nutritional status child but also mental, emotional , social and independent child develop optimally <sup>4</sup>.

Based on preliminary survey data results weighing baby at three month finally in the work area Public health center Cilandak, South Jakarta, available registered baby do weighing at posyandu and the results there is experiencing babies increase weight , and no experience increase supposed weight .

Research Objectives This influence *baby massage* to baby weight 7-12 months in the working area Public health center Subdistrict Cilandak 2022.

## METHOD

Research type This is quasi experimental research design with method pretest- posttest group design, Population in study This is whole whole babies aged 7-12 months in the work area Public health center Subdistrict Cilandak as many as 30 babies. Instrument research used is sheet observation , scales baby weight Analysis done for two variables using the Paired T-Test statistical test with using SPSS.

**RESULTS**

**Table 1 Average Baby Weight Gain Before and After Group Experiment in the Work Area Public Health Center Cilandak 2022**

Class Experiment	N	Means	Mean difference	SD	Min	Max
Pretest	15	8689.80	677	1267,446	7050	11080
Posttest	15	9366.80		1071,395	7860	11050

Based on table 4.1 shows that of 15 respondents total body weight before given treatment is of 8689.80 grams with standard deviation of 1267.446 then obtained mark lowest weight of 7050 grams and the highest body weight of 11.080 grams.

**Table 2 Average Baby Weight Gain Before and After Group Control in the Work Area Public health center Cilandak 2022**

Class Control	N	Means	SD	Min	Max
Pretest	15	8594.00	1189,472	6950	10455
Posttest	15	8936.80	1226.317	7250	11000

Based on table 4.2 shows that of 15 respondents total body weight before given treatment is of 8594.00 grams with standard deviation of 1189,472 then obtained mark lowest weight of 6950 grams and the highest body weight of 11,000 grams.

**Table 3 Influence Giving *Baby Massage* To Baby's weight before and after in babies aged 7-12 months in the health center area Cilandak 2023**

	Baby's Weight	mean	Mean difference	SD	p-Value
Pretest	Intervention	8689.80	95,800	1267,446	.833
	control	8594.00	95,800	1189,472	.833
Posttest	Intervention	9366.80	430,000	1071,395	.315
	control	8936	430,000	1226.317	.315

Research results obtained mark significant on the results of the *independent T-* test of 0.833 ( $P=0.833>0.05$ ), which means that No There is significant difference baby weight with gift *baby* massage and baby weight with control group .

Research results obtained mark significant on the independent test results *T-test* of 0.315 ( $P=0.315>0.05$ ), which means that No There is significant difference baby weight with giving *baby massage* and baby 's weight with group experiment .

Based on results testing the researcher can conclude that It means is  $H_a$  rejected and  $H_o$  accepted . Which means interventions carried out researcher form gift *baby massage* No effective increase baby weight in a manner significant Because have an average weight that is not Far different for babies group control.

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## DISCUSSION

### 1. Average Baby Weight Gain

Based on results research conducted researchers in the public health center work area subdistrict Cilandak–South Jakarta obtained the average value of the respondent's body weight before massaged is 8594.00 gr with standard deviation of 1267.446 then obtained mark lowest weight as big 6050 grams and the highest weight 11.000 grams. After given treatment the average weight of the baby is of 8689.80 grams with standard deviation by 11,080 then obtained mark lowest weight of 7050 grams and the highest body weight of 1189.472 grams.

This in accordance with research conducted previously that is significant influence massage baby to development neonates. Baby done massage routine will more fast increase heavy body compared with babies who are not massaged <sup>5</sup>.

Other research shows the average change weight in babies ages 6–12 months every week in groups treatment which is 101 grams, that is happen addition 2 4 times from no baby weight massaged. 16 Infants aged 6–12 months happen addition every Sunday about 25–40 grams and at the end the 12th month will be happen addition triple birth weight. <sup>6</sup>

Characteristics respondent 4010-5000 grams with total 6 babies that is with percentage 40% There is study this in part big respondent 1 month old, where month First life baby experience adaptation to environment, change circulation blood, as well start the functioning of the organs of the body, and in post neonates baby will experience very fast growth. <sup>7</sup>

Growth child in infancy besides gift good nutrition necessity stimulation or stimulation so that can experience change in habit eat become more frequent and cause change weight will the more fast. Intervention form baby massage on the body baby is means fulfillment need stimulation when baby in stimulate all work system sensory and motor.

### 2. Influence Giving Baby Massage Against the Weight of Infants Aged 7-12 Months in the Work Area Public health center Subdistrict Cilandak

Based on statistical test results with use *paired t test* obtained  $p = 0.000$ . Because  $p=0.000 < 0.05$  then  $H_0$  is rejected and  $H_a$  is accepted,  $p$  this show there is influence *baby massage* to enhancement baby's weight in the Work Area Public health center Cilandak, South Jakarta, 2023. Research results This in line with research that has done that increase the baby 's weight massage that is of 800 grams/month, and babies who don't done massage 233.33 gram/month. <sup>8</sup>

Enhancement baby weight the of course greatly influenced by the gift given baby massage in a manner continuous. Basically massaged baby will experience enhancement rate enzyme absorption and

insulin so absorption to food essence also becomes more ok. The result, baby become fast hungry and because that more often suckling so that increase milk production <sup>9</sup>.

Insulin production will make it easy for metabolize glucose. Secretion sour hydrochloride, pepsinogen, enzymes pancreas, increase Genre bile heart will make it easy digestion food. When food reach the duodenum will stimulate cholecystokinin production, p This will stimulate intestinal motility. So that with exists enhancement motility stomach and intestines will make it easy mixing, pushing food and absorption nutrition become better <sup>9</sup>.

After done massage baby will feel fast hungry so that lust eat baby will increase. this can increase baby weight be optimal and experience enhancement more weight significant compared to with baby who doesn't get massage baby <sup>10</sup>

Therapy massage baby can increase vagus nerve activity so that massaged baby experience enhancement rate enzyme absorption and insulin so absorption for food essences will more well, where matter This make baby become more fast hungry and because That more breastfeeding frequently <sup>11</sup>.

Most system nerve is system autonomous, one among them is innervation to the channel digest . supply nerve parasympathetic delivered from the abdomen through nerve vagus. vagus nerve is the 10th nerve which regulates organ function including on the chest and abdomen. Nerve stimulation vagus (nerve parasympathetic) will stimulate stomach for emit gastrin hormone. Part big system nerve is system autonomous, one among them is innervation to the channel digest. Supply nerve parasympathetic delivered from the abdomen through nerve vagus. Vagus nerve is the 10th nerve which regulates organ function including on the chest and abdomen. Nerve stimulation vagus (nerve parasympathetic) will stimulate stomach for emit gastrin hormone. <sup>12</sup>

Baby massage capable stimulate motor, help the process of sleep, reduce anxiety and complaints. Happen enhancement substances food on the channel digestion and developing a child's mentality, making temperature body can more stable as well as capable increase the hormones gastrin and insulin play a role in absorption food so that baby gains weight faster <sup>13</sup>.

Baby massage can stimulate vagus nerve nerve, another name for vagus nevus nerve is responsible pneumogastric answer for innervate stomach and lungs and increase function sensory and motor stomach so that make emptying stomach more fast and make baby so fast hungry so that frequency increased consumption of breast milk interpreted absorption nutrition more good for increase weight .

## CONCLUSION

There is influence Baby Massage to enhancement baby weight 7-12 months old. This research can increase mother 's knowledge about importance massage baby for increase baby weight.

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