



EFFECT OF BABY SPA (*SOLUS PER AQUA*) ON THE DEVELOPMENT OF GROSS MOTOR ABILITIES OF BABY UMUR 3-6 MONTHS

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ABSTRACT	Keywords
<p>Background: Motor development is a process of Maturity or motion that directly involves the muscles to move and the neural process that a person can move his body. WHO states that 20-40% of babies experience delays, while Indonesia reaches 16%. One way that can be used to meet the needs of motor development is to do a <i>baby spa</i>.</p> <p>Objective: The purpose of this study is to see if the <i>treatment</i> carried out can improve the motor development of infants aged 3-6 months at the Suryati Midwife Independent Practice in Jayapura Regency.</p> <p>Methods: The design of this study uses <i>Pre-Experimental Design</i> with the design <i>Group Pretest-Posttest Design</i>. The population in this study was all babies aged 3-6 months with sampling techniques using <i>Non-Probability Sampling</i> selected by <i>Purposive Sampling</i> consisting of 30 respondents. The variable measured in this study was the motor development of the baby. This study used the <i>Wilcoxon signed rank test</i> ($\alpha < 0.05$).</p> <p>Result: The results showed that the development of babies after a baby spa was higher than before the <i>baby spa</i> with a value of $p=0.002$. Thus it can be concluded that the accepted hypothesis means that there is an influence of baby spas on the motor development of the baby.</p> <p>Conclusion: there is an Effect of <i>Baby Spa (Solus Per Aqua)</i> on the Development of Gross Motor Abilities of Babies UNut 3-6 Months</p>	<p>Baby spa, Motor development</p>

INTRODUCTION

Infancy is the golden age in an individual's development. At this time, babies experience very rapid growth and development both in terms of motor, emotional, and cognitive. One of the

important aspects of the developmental process is gross motor development, such as the movement and posture of the body using large muscles or most of all limbs that are affected by the maturity of the child at the

beginning of the child's intelligence and social emotions. (Maimunah, 2021)

There are still many problems of delays in motor development in Indonesia, even though the child quality improvement program is one of the government's priorities in Indonesia. Based on findings conducted in 254 villages across Indonesia, it found that 30% of the 9 million babies suffer from delayed gross motor development. Optimal baby development is influenced by several factors, one of which is stimulation. Babies who receive directed, regular, and early stimulation will develop faster than babies who lack or are too late to get stimulation. Stimuli to help the child's gross motor development can be done with massage. The delay in gross motor development has an influential impact on the development process because the baby (3-12 months) is unable to reach the stage of development that should be achievable in babies his age. Gross motor development of children that is not optimal can cause a decrease in the child's enthusiasm for adapting Baby massage is one of the traditions passed down by ancestors that can be useful to help the child's motor development. the development of technology, baby massage was then modified with a more modern pattern until it became a new trend which became known as baby SPA. *Baby SPA* is a body care for babies using a combination of baby gym, baby swim, and baby massage methods that are carried out in an integrated manner to balance the baby's body, mind, and feelings. (Dahlan, Choirunissa and Misrati, 2021)

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baby swim, and *baby massage* methods that are carried out in an integrated manner to balance the baby's body, mind, and feelings¹. Based on the Jayapura Regency Health Profile in 2018, shows that there are 42% of toddlers experience delays in motor development, and based on the annual report of the Sentani Health Center of Jayapura Regency in 2019, there are 34% of babies who experience delayed motor development, one of the causes is due to lack of stimulation provided by parents⁸. Based on a preliminary study at the Suryati Midwife Independent Practice in Jayapura Regency in 2019, found that of the 38 babies who came for baby SPA treatment, after screening using a pre-developmental screening questionnaire, 26 babies experienced delays in motor development, besides those parents who brought their babies for baby SPA care mostly did not know about the baby's growth and development. For children to achieve optimal development, a form of more intensive treatment is needed, including continuous touch and stimulation, namely with *baby SPA*. Based on the description above, it encourages researchers to know "The Effect of *Baby SPA (Solus Per Aqua)* on the Development of Gross Motor Abilities of Babies Aged 3-6 Months. (Budi *et al.*, 2015)

METHOD

This research is a pre-experimental study with a quasi-experimental design. The design of this study is one group pretest and posttest instrument used is a developmental prescreening questionnaire to measure gross motor development in infants aged 3-6 months before the intervention and measure motor development after the *BAbay SPA* intervention, and an observation sheet for the implementation of *Baby SPA*. Research place at Suryati Midwife Independent

Practice in Jayapura Regency. The population in this study was infants aged 3-6 months who came to visit the Suryati Midwife Independent Practice. The study was conducted for 2 months. The sample is representative of the population. The sampling technique in this study was to use purposive sampling. The instruments used are a pre-developmental screening questionnaire and a Baby SPA implementation sheet to measure gross motor development in infants aged 3-6 months. Univariate analysis to explain the characteristics of variables. This study was able to analyze the ability of gross motor development in respondents before and after the intervention. A bivariate analysis was performed to find out the difference between the pre and post. The statistical test used is to use the paired sample t-test. If the data is normal then use the *Wilcoxon* test on the SPSS program with a significant p-value of <0.05 to find out the difference in the average value between pre and post. (I Ketut Swardana, 2012)

RESULTS AND DISCUSSION

Research Results

Table 4.1

Characteristics of Baby Respondents
Conducted by Baby Spa at the Suryati
Midwife Independent Practice in 2022

Baby	Frequency	Percentage (%)
1. Age		
3 Months	6	23
4 Months	7	27
5 Months	7	27
6 Months	6	23
Total	26	100
2. Gender		
Man	12	46
Woman	14	54
Total	26	100

From the data obtained about the characteristics of respondents, there were 26 respondents aged 3-6 months, showing respondents with female sex as many as 14 people (54%), and men as many as 12 people (46%).

1. Univariate Analysis

What is distributed is the motor development of babies before and after the *baby spa* at the Suryati Midwife Independent Practice, Jayapura Regency Tahun 2022.

Table. 4.2

Baby's Motor Development Before and After *Baby Spa* at Suryati Midwife Independent Practice in 2022

Based on table 4.2, it can be seen that the ratio of babies before and after being given *baby spa* treatment increased in the *advanced* category of 6 babies (23%) and increase in the normal category of 20 babies (77%).

Table 4.3
The Effect of Baby Spa on Infant Motor Development in Suryati Midwife's Independent Practice in 2022

		Difference	in	P-value
Upgrades				
Before			After	
After	Advance	3	6	0,0
<i>babyspa</i>	Normal	1	2	02
		3	0	
	Caution		0	
		10		
	Total	26	2	6

Based on table 4.3 *Wilcoxon* test results show an increase in the Advance and Normal categories, while in the caution category there has been a decrease in sig values. 0.00 2. and <0.05 then it can be concluded that H_a is accepted and H_o is rejected, meaning that there is an influence of the baby spa on the motor development of the baby.

Motor Development			
	Before		After
Kategori	F	% F	%
Advanced	3	16.6	23
Normal	13	50.0	77
Caution	10	39.0	0
Total	26	100.0	100

DISCUSSION

Baby's Motor Development Before *Baby Spa* at Suryati Midwife Independent Practice in 2022

Based on the results of research before what she did *baby spa* at the Suryati Midwife Independent Practice from 26 babies aged 3-6 months found 6 babies with dubious motor development (*caution*). This is because babies who have a history of birth with low birth weight are also caused by mothers rarely giving exclusive breastfeeding or because breast milk is not smooth.

According to (Dahlan, Choirunissa dan Misrati, 2021) to grow and develop optimally adequate nutrition and affection needed, nutrition in babies 0-6 months can be obtained from exclusive breastfeeding, besides that babies also need proper stimulation, because children who get a lot of stimulation will develop faster than those who lack or even do not get stimulation.

As explained by Nina Sardjunani that how improved nutrition and proper stimulation are very important for the baby group in the first 1000 days of life because it can uphold the growth and development of babies up to 2 years of age, therefore the growth and development of babies is not only caused by genetic factors but also good

environmental factors with a focus on the first 1000 days of life.

In addition to good nutrition and environment, a baby *spa* is one way that can help babies improve their motor development through swimming activities that make the baby more active in moving, not only massage activities certainly create affectionate relationships. As the study conducted by Dhamayanti (2006) stated, there were 494 children aged 15-18 months consisting of 246 girls and 248 boys, from these data it was suspected that developmental disorders occurred in 57 children (12%).

The results of Usman's research in conflicting areas revealed that each child will go through the growth and development process according to his age. However, environmental factors are a determining factor for the continuity of normality of a child's development. Of the 40 children who were taken developmental measurements, 13 were doubtful about their development. (Budi *et al.*, 2015)

Measurements made by wahyuningtyas showed that out of 20 babies 13 babies belonged to the *Caution category*, this was also due to a lack of stimulation.

Researchers assume that the baby's motor development can be hampered if the child has a history of low birth weight, the mother does not provide breast milk, and unfulfilled nutrition.

Baby's Motor Development After Baby Spa at Suryati Midwife's Independent Practice in 2022

Based on the results of research after the conduct of **the baby spa** at PMB Suryati, the motor development of babies in the Normal and *advanced categories*. This is because mothers are more active and bring

their babies to do baby spa treatments as often as possible.

Water and gymnastics help improve coordination and balance. Developing motor skills, better body balance, honing independence, courage, and self-confidence, as well as increasing IQ, the baby's appetite increase mothers can also provide better nutritional intake compared to before so that **the baby** is fitter and healthier, therefore it is very visible the influence obtained after routinely doing baby *spa*

The results of a study in Melbourne, Australia, statistically showed that the IQ of children who were taught to swim from infancy was seen to be higher than that of children who were not taught to swim or were only taught to swim after the age of 5. In this study, the children had their IQ measured when they were 10 years old. Not only that, but his physical, emotional, and social growth has also proven to be better (Taradiva Dwi, 2016)

This is in line with the results of Dewi's research, showing that babies who routinely do *baby spas* mostly experience normal **development**, namely 86.7% and those who experience suspected development are only 13.3%. Meanwhile, babies who do not routinely do *baby spas* **are** mostly suspected developments, namely 52.5%, and those who experience normal development are only 47.4%.

From the results of the *pre-test* conducted by (Rahmawati, 2016) from 20 **babies, as many as 5 babies were included in the normal category** to as many as 7 babies and for **the advanced** category there was no increase or decrease, but the babies became more active in moving or responding to the surrounding environment.

As researchers recommend it because the treatment in *a baby spa* is beneficial for the baby's mental development. Swimming from birth is very good for the health **and** development of the baby and early recognition will prevent the baby from experiencing water fears that can develop later in childhood.

The Effect of *Baby Spa* on Infant Motor Development in Suryati Midwife's Independent Practice 20 22

The measurement results showed that of the 26 babies, initially, 3 babies belonged to the *caution category*, 17 babies in the normal category, and 6 babies in the advanced category. After receiving a baby spa treatment consisting of the baby gym (5 minutes) followed by a baby swim (15 minutes) and ended with a baby *massage* (10 minutes) for each baby for 1 month with a frequency of 3 times a week, the measurement results were obtained, 20 babies were included in the normal category and 6 other babies in the advanced category.

Based on the results of the study, it is known that the results of the t-test show $p = 0.002 (<0.05)$, meaning that there is a significant influence between a *baby spa* and the motor development of babies aged 3-6 months.

Baby spas that are done regularly are very good for the growth of the baby's skin. Because in 28 days the skin always regenerates so that there will always be remnants of peeling skin every day. This is where the bathing process has an important role to clean them, so the tendency to get sick will be minimal. (Naufal dan Artika, 2019)

This is in line with the results of research put forward by showing that baby *spa's* more proven motor control ability will develop more rapidly than if he only played on the floor because when swimming in the

water, the gravitational effect is very low so that it is possible for the baby to move more and all muscles can work optimally. Babies expend more energy when swimming for 15 minutes with warm water media so babies expend more energy in the body. After the baby does treated baby spa the responsiveness and working power of the brain and brain will be better so that the baby experiences an increase in motor development both gross and smooth.

The results of the 2014 Esti Rachmawati research showed that from 20 babies there was an increase in results that initially at the time of the pretest 13 babies who were included in the *caution category*, decreased by 2 people (10%) to only 11 babies who were included in it, while for the normal category there was an increase in data of 2 babies (10%) which can be seen from the *pretest* results. As many as 5 babies in the normal category became 7 babies while the *advance* did not occur in the upbringing or subjugation, but the babies became more active.

The importance of providing the right stimulation for babies to support growth during growth and development can be done with *a baby spa*. The increase in growth that occurs in babies who have participated in a *baby spa* is that the baby's appetite is increasing so that the baby gains weight and the baby looks healthy and has an increase in weight, height, and head circumference when compared to babies with high school age who are not given baby *spa* treatment. (Wijhati, 2015)

Based on the description above, it can be concluded that baby *spa* therapy is a treatment designed for baby *massage*, *baby gym*, and *baby swimming* to provide positive stimulation to babies aged 3 months to 2 years which affects the growth and development of babies. Another benefit of a baby spa is that it makes the baby

comfortable (relaxation) and sleepy (fast asleep).

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