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THE EFFECT OF BABY LED WEANING METHOD ON ORAL MOTOR SKILLS IN BABIES 6-12 MONTHS IN THE WORKING AREA OF THE EAST PEUREULAK PUSKESMAS

Rahmisyah [1] , Herna Linda[2] , Sri Rizki Purnamita Jayati [3]
[1]Universitas Bina Bangsa Getsempena, Banda Aceh, Indonesia
[2]STIKes Bustanul Ulum Langsa
* rahmisyah@bbg.ac.id * rpurnamita@gmail.com

ABSTRACT

Oral motor skills for babies aged 6-12 months can be improved by providing stimulation such as baby-led weaning, which is a method of eating activities that introduces healthy family foods that are often consumed by families in the form of finger foods and gives children the opportunity to eat on their own from the start of the process of introducing complementary foods. breast milk. The aim of this research was to determine the effect of the baby-led weaning method on oral motor skills in babies 6-12 months in the UPTD Work Area of the East Peureulak Health Center. The research design used in this research is quasi-experimental with a one group pretest-posttest approach. The population in this study were all 127 babies aged 6-12 months in the East Peureulak Health Center Working Area. The number of samples in this study was 15 babies 6-12 months. The sampling technique in this research used purposive sampling. Data analysis was carried out univariate and bivariate using the Wilcoxon test. The results of the study showed that the oral motor skills of babies aged 6-12 months before being given the baby led weaning method were 6.6 with a standard deviation of 0.737 and a Confidence Interval of 5-8 and after being given the baby led weaning method was 7.4 with a standard deviation of 0.516 and Confidence Intervals 7-8. There is an effect of baby-led weaning on oral motor skills in babies 6-12 months with a p-value of 0.004 (p<0.05). It is hoped that parents can use baby-led weaning as an option method for providing MPASI to stimulate children's motor skills, increase children's appetite, train children to recognize food textures, and must still be under the supervision of competent health workers.

Keywords : Baby Led Weaning, Oral Motor Skills, Babies 6-12 Months

INTRODUCTION

Organization (WHO) in 2019, as many as 1.5 million babies died due to inappropriate feeding and 90% of them occurred in developing countries. Underweight in babies occurs because at that age nutritional needs are greater and the age stage is vulnerable to nutrition. The situation of wasting and severe wasting among children under five in the Southeast Asia and Pacific region in 2019 is still far from expectations. Indonesia ranks second highest for the prevalence of wasting among 17 countries in the region, namely 12.1%. In addition, the average case handling coverage in 9 countries in the region only reached 2% (WHO, 2019).

Based on data from basic health research, the number of cases of malnutrition in Indonesia reached 5.7% and undernutrition was 13.9%. The biggest nutritional problem in Indonesia is malnutrition which is mostly caused by consuming food that is not sufficient for the body's needs. Nutritional problems are mainly suffered by children who are growing rapidly, namely the toddler age group whose prevalence is 30-40%. Most nutritional diseases are characterized by body weight below the red line in infancy and childhood, characterized by 2 syndromes, namely kwashiorkor and marasmus (Riskesdas, 2018).

The prevalence of nutritional status for toddlers based on BW/U in Aceh Province is poor nutrition 7.9%, undernutrition 18.4%, good nutrition 70.7%, overnutrition 2.9%. The prevalence of nutritional status based on height for age (TB/U) was very short 20.1%, short 21.4%, normal 58.5%. The prevalence of nutritional status based on body weight and height was very thin 6.1%, thin 9.6%, normal 74.5%, obese 9.8%. Prevalence of nutritional status according to height according to age and weight height short-thin 4.13%, short-normal 31.00%, short-fat 6.16%, normal-thin 11.54%, normal-normal 43.48 %, normal-fat 3.69% (Aceh Health Office, 2020).

Babies have tongue movement and swallowing skills. This skill will help babies in the process of digesting food. When babies consume MP-ASI in the early days, most babies spit food out of their mouths, this is part of the learning process. The eating behavior and eating skills of babies aged 6 months and over must be trained, because the age of 6-9 months is a critical period for the development of baby's eating skills. These eating skills are supported by several basic skills. One of these basic skills is oral motor skills (Muharyani et al, 2018).

Oral motor skills are skills that involve the strength and flexibility of the facial and mouth muscles. These skills are related to visual coordination, movement, as well as coordination of the hands, eyes, facial and mouth muscles which play a role in the process of swallowing and consuming various food textures. Oral motor skills also play an important role in

coordinating basic functions during sleep, such as controlling saliva secretion, swallowing, and maintaining the alignment of the structure of the mouth so that breathing is not disturbed, so that if oral motor skills are hampered it will result in the development of basic daily functions being disrupted, such as being lazy to talk, picky eaters or picky eaters so that they can reduce the nutritional intake needed (Beckman, 2017).

Efforts to improve the oral motor skills of babies aged 6-12 months are by providing stimulation, apart from that, a feeding activity method that is currently being developed is baby led weaning. This baby-led weaning method is a method of eating activities that introduces healthy family foods that are often consumed by the family in the form of finger foods and gives children the opportunity to eat on their own from the start of the process of introducing complementary foods to breast milk. Mothers who apply the baby-led weaning method to their babies have a positive eating experience for both mother and baby and eating becomes more enjoyable (Muharyani et al, 2018).

Another benefit of this method is that the baby enjoys the process of eating, it is relatively easy to invite the baby to eat outside the house when traveling, costs are more economical, the baby develops a healthy eating pattern, the baby participates in family meals and generally eats what the family eats. Apart from that, baby led weaning will also develop better and faster chewing ability, manual dexterity and hand and eye coordination compared to babies who are used to being fed (Rapley & Murkett, 2018).

In line with research conducted by Muharyani et al (2018), which concluded that there was an influence of the baby-led weaning method on oral motor skills with a ρ value of 0.031 and CI before 5.54 to 8.92 while CI after 0.93 to 3.63. The implementation of baby-led weaning can be applied to improve children's oral motor skills as a primary prevention effort in overcoming difficult eating behavior in children.

Based on an initial survey conducted in the UPT work area of the East Peureulak Health Center by observing 10 babies 6-12 months, it was found that 7 (70%) babies had poor oral motor skills, this can be concluded from the mother's statement which said that the baby has an eating behavior that likes to hold food in the mouth for too long, chooses sweet-tasting foods and refuses to eat porridge textures after being given it for about 2 weeks.

Based on the background described above, it is necessary to conduct research on the effect of the baby-led weaning method on oral motor skills in babies 6-12 months in the UPTD Work Area of the East Peureulak Health Center in 2024.

METHODS

The research design used in this research is Quasi Experiment, namely an experiment that does not have or does not have the characteristics of a true

experimental design. The approach chosen is one group pretest-posttest, where in this design there is no comparison group (control) and only conducts research on the case group (intervention) by comparing the results of the first interview (pretest) and testing changes after the experiment (posttest) (Sugiyono , 2016). The research design can be seen in the following table:

Table 1.
One Group Pretest-Postest Design

Pre Test	Treatment	*Post Test*
O1	*X*	O2

Information :
X: Treatment (baby led weaning)
O1: Pre test (baby's oral motor skills 6-12 months before baby led weaning)
O2: Post test (baby's oral motor skills 6-12 months after baby led weaning)

RESULTS AND DISCUSSION

The results of research conducted on 15 babies in the UPTD Working Area of the East Peureulak Community Health Center which aimed to determine the effect of the baby-led weaning method on oral motor skills in babies 6-12 months old through primary data collection showed the following results:

1. Baby Characteristics

Table 2.
Frequency Distribution of Characteristics of Babies 6-12 Months in Regions East Peureulak Community Health Center UPTD work 2024

No	Baby Characteristics	Frequency (f)	Percentage (%)
	Jenis Kelamin		
1	Man	6	40
2	Woman	9	60
	Amount	15	100
	Age		
1	6-9 Month	10	66,7
2	10-12 Month	5	33,3
	Amount	55	100

2. Oral Motor Skills

Table 3.
Oral Motor Skills Of Babies 6-12 Months In The Region Uptd Job For East Peureulak Community Health Center 2024

No	Oral Motor Skills	N	Mean	SD	Min-Max CI 95%
1	Before *Baby Led Weaning*	15	6,6	0,737	5-8
2	After *Baby Led Weaning*		7,4	0,516	7-8

Bivariate Analysis Results Using Non-Parametric Tests (Wilcoxon Test) Obtained The Following Results:

Table 4.
The Effect of the Baby Led Weaning Method on Skills Oral Motor in Babies 6-12 Months in Work Areas UPTD East Peureulak Health Center 2024

No	Oral Motor Skills	N	Mean Rank	Z-Test		*p-value*
				Z-Count	Z-Table	
1	Negative Rank	0	5,5	-2.919[b]	3,264	0,004
2	Positive Rank	10				
3	Ties	5				
	Amount	**15**				

The results showed that of the 15 babies aged 6-12 months who were given the baby led weaning method, 10 babies experienced an increase in their oral motor skills, no babies experienced a decrease in their oral motor skills and 5 babies experienced no change in their oral motor skills. The results of the Wilcoxon test show a p-value of 0.004 ($p<0.05$) where Z-count (2.919) < Z-table (3.264) so it can be concluded that there is an influence of baby-led weaning on oral motor skills in babies 6-12 months.

DISCUSSION

The results of the study showed that the oral motor skills of babies aged 6-12 months before being given the baby-led weaning method were 6.6 with a standard deviation of 0.737 and a confidence interval of 5-8. This research is in line with that conducted by Maharyani et al (2018) regarding the influence of the baby lead wining method on oral motor skills in babies (6-12 months) at Sesa Sidorejo UPTD Way Hitam Health Center IV. The research results

showed that the baby's oral motor skills before implementing baby-led weaning had a mean value of 7.2381 and a standard deviation value of 3.71.

Babies actually have tongue movement and swallowing skills. These two skills will determine when your baby gets his first solid food. In the early months, babies have a "tongue rejection" reflex which causes the tongue to automatically stick out when something enters the mouth. This is a movement to protect the various solid foods that will be given. When a baby reaches 6 months of age, this reflex to reject solid food decreases. Another sign that is a signal that the baby does not need to be given solid food before 6 months is the absence of teeth before the age of 6 or 7 months. In this way, it can be concluded that at the age of 0 to 6 months, babies eat by sucking, not chewing (Maelani et al, 2021).

Strength and flexibility of facial and oral muscles are components of oral motor skills. Speaking, swallowing, and swallowing various textures of food all rely heavily on the movement and synchronization of facial and oral muscle structures. Coordinating basic sleep tasks such as swallowing, regulating saliva production, and maintaining the alignment of oral structures to prevent respiratory disorders are all made possible by oral motor abilities. The development of basic functions will be disrupted if oral motor skills are impaired. Children with poor oral motor skills are usually characterized as hypersensitive, reluctant to communicate, or fussy eaters (Sari et al, 2024).
Researchers assume that before implementing the baby-led weaning method, most of the babies in this study liked to keep food in their mouths for too long, chose sweet foods, and rejected foods with hard textures. The behavior of spitting food out of the mouth, chewing for a long time, liking to brush the mother's mouth, and being picky about food when eating are difficult eating behaviors. Picky eating behavior is often caused by impaired oral motor skills in children. Therefore, preventive efforts such as implementing baby led weaning are very necessary to overcome the problem of feeding children due to impaired oral motor development in children.

Oral Motor Skills After Being Given the Baby Led Weaning Method to Babies 6-12 Months. The results of the study showed that babies who had been given the baby led weaning method were 7.4 with a standard deviation of 0.516 and a confidence interval of 7-8. This research is in line with research conducted by Maharyani et al (2018) regarding the influence of the baby lead wining method on oral motor skills in babies (6-12 months) at Sesa Sidorejo UPTD Way Hitam Health Center IV. The results showed that the baby's oral motor skills before implementing baby led weaning had a mean value of 2.2857 and a standard deviation value of 2.96

Giving children the freedom to choose and eat food with their own hands is known as baby-led weaning, which is a technique for preventing MPASI. This approach seeks to engage children's motor skills, increase children's hunger, and teach them to detect food texture by allowing them the freedom to choose the food they want, hold it, and learn how to chew. A child must be

able to sit upright for weaning to occur, and the baby must be at least 6 months old. Food prepared for weaning must be soft food, such as finger food (Dewi et al, 2023).

One type of sensory stimulation that can be used to reduce oral hypersensitivity, strengthen and expand the range of motion of the sucking muscles, and trigger reflexes that help the sucking process is oral stimulation. This oral stimulation program consists of 15 minutes daily for seven days to stimulate intraoral tissues such as the molars, inner cheeks, tongue, and palate, as well as perioral structures including the cheeks, jaw, and lips through stroking movements. Because they have a strong sucking reflex, babies can drink breast milk according to their needs to meet their nutritional needs and are expected to grow and develop according to their age (Apriluana and Fikawati, 2018)

Researchers assume that there is an increase in oral motor skills in babies aged 6-12 months after implementing the baby-led weaning method. With this method, there will be an opportunity for children to learn to eat on their own which will develop coordination and stabilization of the oral motor muscles so that it can influence the child's ability to process food and the child can eat well and nutritiously and not like to pick at food. This will influence the child's growth and development optimally.

The results of the Wilcoxon test show a p-value of 0.004 ($p<0.05$) where Z-count (2.919) < Z-table (3.264) so it can be concluded that there is an influence of Baby Led Weaning on oral motor skills in babies 6-12 months . The results of the study also showed that of the 15 babies aged 6-12 months who were given the Baby Led Weaning method, 10 babies experienced an increase in their oral motor skills, no babies experienced a decrease in their oral motor skills and 5 babies experienced no change in their oral motor skills.

This research is also in line with that conducted by Sari et al (2024) regarding the effect of the baby-led weaning method on oral motor skills in babies (6-12 months) at the Pratama Tanjung Clinic, Deli Tua District. The results of the study showed that providing the baby lad weaning method had an influence on the oral motor skills of babies aged 6-12 months at the Pratama Tanjung Clinic with a p-value of 0.001 < 0.05.

A feeding technique called "baby led weaning" teaches babies to identify the taste, texture and shape of food. Children's oral motor development is also influenced by the taste and texture of food. The coordination of babies' sensory and motor systems also develops as they experiment with different textures, tastes, shapes and sizes of baby foods. The baby's hands and eyes work together to place the baby in the mouth, demonstrating the coordination of his motor and sensory systems. So that the oral motor muscles can move steadily and coordinate with each other to produce oral motor patterns, this coordination will encourage the activity of these muscles (Maelani et al, 2021).

Eating becomes more enjoyable for mothers who use the baby-led weaning method with their babies, because both parties get good eating results. For example, newborns learn healthy eating habits, they enjoy eating, it's easy to get them to eat when traveling, and they usually join in on family dinners. In addition, compared to newborn babies who are used to being breastfed, baby led weaning will encourage the development of chewing ability, motor dexterity, and better and faster hand-eye coordination (Judarwanto, 2018).

Researchers assume that with baby-led weaning, babies will learn to process food by instinct, such as when a baby holds an object and learns about the object by putting it in its mouth and learning to chew it. The feeding method that has been used by mothers in the UPTD Work Area of the East Peureulak Community Health Center is by feeding the child (conventional MPASI). However, some children refuse to give conventional MPASI, resulting in the child's weight loss, so it is necessary to implement the baby-led weaning method. The application of the baby-led weaning method that has been carried out by respondents shows that there is an increase in oral motor skills, where they can learn to recognize the shape, taste and texture of food so that they can increase appetite and can stimulate oral motor skills which helps the baby's growth.

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