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RELATIONSHIP BETWEEN EXCLUSIVE BREASTFEEDING AND BASIC IMMUNIZATION STATUS RELATED WITH STUNTING IN TODDLERS AGED 12-24 MONTHS

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ABSTRACT

The nutritional problems faced by Indonesian children in the long term will cause problems in the growth and development of children. The incidence of growth and development problems due to malnutrition is commonly called stunting. The World Health Organization (WHO) in 2018 stated that the incidence of stunting under five in the world reached 22.9% or 154.8 million children under five. The purpose of this study was to determine the relationship between exclusive breastfeeding and basic immunization status with the incidence of stunting in children aged 12-24 months. The method used in this study is a quantitative method with a descriptive correlational research approach, namely an approach by testing the relationship between variables. The type of research used in this study is a cross sectional study. This study uses Consecutive Sampling, namely the selection of samples by determining subjects who meet the research criteria to be included in the study until a certain time limit so that the number of respondents is met. the results of the analysis of the relationship between breastfeeding and the incidence of stunting obtained the highest data was exclusive breastfeeding with no stunting as many as 92 respondents (87.0%). The results of the Rank-Spearman statistical test obtained p-value = 0.000 < (0.05). The results of the analysis of the relationship between the immunization status of children and the incidence of stunting obtained the highest data was the complete immunization status of children without stunting as many as 92 respondents (70.7%).

Keywords: exclusive breastfeeding; stunting; toddlers

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INTRODUCTION

One of the targets of the Sustainable Development Goals (SDGs) which is included in the 2nd sustainable development goal is to eliminate hunger and all forms of malnutrition by 2030 and to achieve food security. The target set is to reduce the stunting rate to 40% by 2025. The government makes this happen by establishing stunting as one of the priority programs. Based on Minister of Health Regulation Number 39 of 2016 concerning Guidelines for Organizing Healthy Indonesia Programs with a Family Approach (Kemenkes RI, 2018). Nutritional problems faced by Indonesian children in the long term will cause problems in the growth and development of children. The incidence of growth and development problems due to malnutrition is commonly called stunting (Ratnawati, 2017).

The World Health Organization (WHO) in 2018 stated that the incidence of stunting under five in the world reached 22.9% or 154.8 million children under five. The number of stunting events in Indonesia is included in the top five countries in the world. Indonesia is

one of the countries with the third highest prevalence of stunting in the South-East Asian Region after Timor Leste (50.5%) and India (38.4%) and Indonesia at 36.4% (Ministry of Health Data and Information Center, 2018). In 2019, the national stunting prevalence rate was 27.67. Meanwhile, in 2020 the national prevalence rate will be 24.1% (Kemenkes RI, 2020).

Stunting is a condition of toddlers who have a short body size and are not suitable for age caused by malnutrition of the mother and child (Ministry of Health of the Republic of Indonesia 2018). Stunting will have an impact on children's physical growth disorders, children's brain and intelligence development, decreased children's immunity, and children's ability to learn (Rikesdas, 2013).Problems related to the development of nutrition are still very complex in Indonesia. The problem of malnutrition needs to be considered and needs to be handled seriously, various efforts have been made to tackle the stunting problem with a priority to reduce the incidence of malnutrition to 32%. Factors that affect the nutritional status of childrenunder five are immunization and infectious diseases (Aridiyah et al, 2015).

Since 1956, Indonesia has implemented an immunization program as an effort to reduce cases of diseases that are usually prevented by immunization. Immunization is one of the cheapest health investment efforts to prevent disease. One of the programs that is a priority for health development in 2015-2019 is reducing the prevalence of stunting by improving the nutritional status of the community. One of the efforts made in intervening the incidence of stunting in toddlers is with complete basic immunization (Kemenkes RI, 2016).The results of basic health research in 2013 regarding complete immunization coverage increased from 2007 to 2013 from 41.6% in 2007 to 59.2% but in 2013 there were 32.1% of children under five who had not been fully immunized and there were still 8.7% of children under five who have not been immunized. At the provincial level, North Sulawesi with an immunization prevalence rate of 79.09 which has not met the WHO target of 90%. (Directorate General of PPPL, Ministry of Health RI 2013).

Parents have an important role in fulfilling toddler nutrition because toddlers still need special attention in their development, especially the role of a mother as the person who is most often with toddlers. If a mother has good knowledge, it will certainly affect a good attitude in fulfilling toddler nutrition (Olsa et al. 2017). Good knowledge of mothers is expected to be applied to daily behavior, both in parenting behavior, food selection, and feeding that can affect the growth and development of toddlers. However, if the mother does not practice it in daily life, it can have a negative impact on the development of toddlers, such as stunting. The purpose of this study was to determine the relationship between exclusive breastfeeding and basic immunization status with the incidence of stunting in children aged 12-24 months.

METHODS

The method used in this study is a quantitative method with a descriptive correlational research approach, namely an approach by testing the relationship between variables. The type ofresearch used in this study is a cross sectional study, chosen because it is in accordance with the research objective, namely proving a relationship between the cause (problem) and the effect of a phenomenon (impact) at a certain time. In this study, data were collected only once by giving questionnaires to respondents. The number of samples is 92 respondents and data collection is collected by providing stunting event observation sheets and also questionnaire to measure breast milk and immunization status

RESULTS

Table 1.
Characteristic of Respondent

Characteristic	f	%
Age		
<20 years	1	1,1
21-30 years	50	54,3
31-40 years	35	38
>40 years	6	6,5
Level of Education		
Elementary School	25	27,2
Junior High School	21	22,8
Senior High School	31	33,7
College	15	16,3
Profession		
Housewife	64	69,6
Private employees	13	14,1
Enterpreneur	15	16,3
Income		
<Rp. 1.500.000	57	62
>Rp. 1.500.000	35	38
Number of Children		
1	22	23,9
2	36	39,1
3	23	25
>3	11	12
Age		
13-18 month	70	76
19-24 month	22	23,9
Gender		
Female	41	44,6
Male	51	55,4
Breastfeeding		
Ekslusive	80	87
not Esclusive	12	13
Imunization Status		
Complete	69	75
Incomplete	23	25
Stunting		
Stunting	5	5,4
Not Stunting	87	94,6

Based on table 1 shows that of the 92 respondents, most of the respondents were aged 21-30 years, namely 50 respondents (54.3%). Most of the respondents have a high school education level as many as 31 respondents (33.7%). Most of the respondents work as

housewives(IRT), as many as 64 respondents (69.6%). Most of the respondents have income < Rp.1,500,000 as many as 57 respondents (62.0%). Most of the respondents had 2 children, namely 36 respondents (39.1%). most of the respondents have children aged 13-18 months, as many as 47 respondents (51.1%). most of the children in Gunaksa Village are male, as many as 51 respondents (55.4%). most of the mothers gave exclusive breastfeeding, namely 80 respondents (87.0%). most of them had complete immunization status, as many as 69 respondents (75.0%), most of them were in the non-stunted category as many as 87 respondents (96.6%).

Table 2.
Analysis of the Relationship of Exclusive Breastfeeding with Child Stunting Incidence

ASI	Stunting						R	p-value
	Stunting		Not Stunting		Total			
	f	%	f	%	f	%		
Eksklusive	0	0	80	87,0%	80	87,0%	-0,619	0,000
Not Eksklusive	5	5,4	7	7,6	12	13,0		

Table 3.
Analysis of the Relationship between Child Immunization Status and Stunting Incidence

Immunization Status	Stunting						R	p-value
	Stunting		Not Stunting		Total			
	f	%	f	%	f	%		
Complete	4	4,3%	65	70,7%	69	75,0%	0,028	0,793
Incomplete	1	1,1%	22	23,9%	23	25,0%		

Based on table 2, the results of the analysis of the relationship between breastfeedingand the incidence of stunting obtained the highest data was exclusive breastfeeding with no stunting as many as 80 respondents (87.0%). The results of the Spearman Rank statistic test showed that p-value = 0.000 < (0.05) then Ho was rejected and Ha was accepted, meaning that there was a significant relationship between exclusive breastfeeding and stunting in children in Gunaksa Village, Klungkung. The results of the Rank-Spearman test also obtained a correlation coefficient of -0.619, which means that the more exclusive breastfeeding is given, the less likelystunting occurs.

Seen in table 3, the results of the analysis of the relationship between the immunization status of children and the incidence of stunting obtained the highest data was the complete immunization status of children without stunting as many as 60 respondents (70.7%). The results of the Spearman Rank statistic test showed that p-value = 0.793 > (0.05) then Ho was accepted and Ha was rejected, meaning that there was no significant relationship between the immunization status of children and the incidence of stunting in Gunaksa Village, Klungkung. The Rank-Spearman test results also obtained a correlation coefficient of 0.028.

DISCUSSION

Breastfeeding for toddlers

Based on the results of the study, it was found that out of 92, most of them had mothers who gave exclusive breastfeeding, as many as 80 respondents (87.0%). Most of the mothers' occupations or as many as 64 respondents (69.6%) are IRT (housewives). Most of the mother's education level is high school, as many as 31 respondents (33.7%). Stunting can

occur as a result of malnutrition, especially during the First 1000 Days of Life (HPK), poor nutrition during pregnancy, growth and early childhood can cause children to become stunted. Fulfillment of nutrition that has not been fulfilled since in the womb untilthe baby is born can cause health problems in toddlers. One of them is the length of the baby's birth which describes the linear growth of the baby during the womb. A low linear measure usually indicates an undernourished state as a result of the lack of energy and protein suffered by the mother during pregnancy (Kemenkes, 2018).

Based on the results of research Rohmatun (2014), states that stunting is more commonly found in children who are not given exclusive breastfeeding than children who are given exclusive breastfeeding. This is in accordance with the results of this study where most of the babies who lead to stunting are babies who are not given exclusive breastfeeding. Based on Kartiningrum's research (2015), a history of exclusive breastfeeding is a risk factor for malnutrition in toddlers where 68.4% of 75% of toddlers who do not receive exclusive breastfeeding are malnourished.The author argues that the fulfillment of good nutrition in infants from birth is very necessary to prevent stunting in infants. Giving good nutrition to babies is also influenced by the level of knowledge and also exposure to information that has been obtained by parents, so that parents, especially mothers, can provide the best nutrition based on their knowledge, this is supported by data where most of the respondents have high school education. Age 0-6 months breast milk alone is able to meet the nutritional needs of infants, but at the age of over 6 months, breast milk only provides half of the baby's needs. Therefore, other supporting nutrients such as formula milk and complementary feeding are needed to complete the nutritional needs of infants according to the growth of the baby's age. Based on the results of the study, most mothers are housewives, so they have enough time to provide MP-ASI that can complement the nutritional needs of babies.

Basic immunization status in toddlers

Based on the results of the study, it was found that out of 92, most had complete immunization status as many as 69 respondents (75.0%). Data on the characteristics of respondents showed that most of the respondents had 2 children, namely 36 respondents (39.1%).Complete basic immunization is the provision of immunization to infants before the baby is 1 year old and has received five complete basic immunizations, namely one Hepatitis B immunization given to infants less than 24 hours or until less than 7 days after delivery, one BCG immunization is given when the baby is aged 2,3,4 months with a minimum interval of four weeks, four polio immunizations were given to infants aged 1,2,3,4, with a minimum interval of four weeks and one measles/MR immunization was given to infants aged 9 months. Ideally a child gets all basic immunizations according to his age so that the body's immunity against diseases that can be prevented by immunization can be optimal (Ministry of Health in Mulyati, 2013).

Another study by Swathma (2016) where the resultsof basic immunization history research is a risk factor for stunting in toddlers aged 12-36 months in the work area of the Kandai Public Health Center, Kendari City in 2016.Theauthor is of the opinion that the provision of immunity or immunization is one of the efforts that can be done to prevent children from being exposed to viruses that can interfere with their growth and development. The basic immunization required by the government is a preventive effort that can be done so that infants and toddlers can avoid stunting. Based on the research data, it was found that most mothers of children under five had 2 children, so forthe history of immunization, most of

them had also given complete immunizations, this was because most mothers had received experience from their first child about giving this immunization. The experience of the previous child will be the basis for immunization forthe next child.

Incidence of stunting in toddlers

Based on the results of the study, it was found that out of 92 respondents, most of them were in the category of not having sufficient stunting, as many as 87 respondents (96.6%). Most ofthe respondents have income < Rp. 1,500,000 that is as many as 57 respondents (62.0%) and most of the toddlers are male, as many as 51 respondents (55.4%).Stunting in toddlers needs special attention because it can hamper the physical and mental development of children (Kartikawati, 2011). Stunting is associated with an increased risk of illness and death as well as stunted growth of motor and mental abilities. Toddlers who experience stunting have a risk of decreased intellectual ability, productivity and increased risk of degenerative diseases in the future.The results of research conducted by Picauly (2013) with the title Analysis of determinants and effects of stunting on school children's learning achievement revealed that there were indications that stunting had an effect on children's learning achievement. Meanwhile, based on research conducted by Dewi (2016), the incidence of stunting isdominated by male children with a percentage of 53.13% while the female sex is 46.88%. This is not in accordance with the results of the study where not all stunting toddlers are male.Based on the results of the study, the authors argue that the incidence of stunting in children is strongly influenced by the intake received by children, especially in the first 1000 days of life, where the fulfillment of nutritional needs is also supported by the family economy in meeting the costs of daily life, especially nutrition.

The relationship between exclusive breastfeeding and the incidence of stunting inchildren aged 12-24 months

The results of the Rank-Spearman statistical test showed that the p-value = 0.000 < (0.05) and the correlation coefficient was -0.619.Breast milk has lower levels of calcium, phosphorus, sodium and potassium than formula, while copper, cobalt and selenium are present in higher levels. The content of breast milk is in accordance with the needs of the baby so that it can maximize the baby's growth including height. Based on this, it can be ascertained that the baby's needs are met and the nutritional status of the baby will be normal in both height and weight if the baby is exclusively breastfed.

Based on the results of the study, it shows that there is a significant relationship between exclusive breastfeeding and the incidence of stunting, this is supported by the results of Indrawati's research (2019), where the p value is 0.000, namely there is a relationship between exclusive breastfeeding and the incidence of stunting in toddlers 2-3 years. Breast milk is a nutritional intake that isin accordance with the needs that will help the growth and development of children.Based onthe results of the study, the authors argue that the success of exclusive breastfeeding for toddlers is also influenced by the work of mothers who are mostly housewives so they have more time to care for their babies, including exclusive breastfeeding. Exclusive breastfeeding is a natural food that is good for babies, practical, economical, easy to digest, has an ideal composition of nutrients according to needs so that events can be prevented. Some respondents also have an income of less than 1,500,000 so that breastfeeding is an economical way of providing nutrition and does not require expensive costs.

The relationship between the provision of immunization status and the incidence ofstunting in children aged 12-24 months

The results of the Rank-Spearman statistical test showed that the p-value = 0.793 > (0.05) and the correlation coefficient was 0.028.Research conducted by Agustia et al (2018) concluded that immunization is a risk factor for stunting. This shows that toddlers who do not get complete basic immunization have a 3,850 times greater risk of suffering from stunting compared to toddlers who get complete basic immunization. Research conducted by Setiawan (2018) found that there was no significant relationship between immunization status and the incidence of stunting.WHO (2013) states that the causes of stunting are very diverse and multifactorial including maternal factors, environmental factors, poor food quality, inadequate child feeding practices, food and clean water factors, inadequate breastfeeding practices, infectious disease factors and child health services. Another way to prevent stunting is through immunization. Immunization is an intervention in the form of action to increase a person's body resistance to a certain disease (Permenkes RI, 2013).

The provision of basic immunization for toddlers can reduce morbidity, disability and death (Kemenkes RI, 2017).Based on the results of the study, the authors argue that children who are not given complete basic immunization do not necessarily suffer from infectious diseases. Children's immunity is influenced by other factors such as nutritional status and the presence of pathogens. Toddlers who receive complete or incomplete immunizations are equally at risk of contracting infectious diseases if they are not balanced with good parenting. If the nutritional status is good and immunization is also complete, it will improve the health status of children under five, besides that, hygiene, sanitation and the family environment are also very important, so that in the end the morbidity rate in children will be low.

CONCLUTION

The results showed that out of 92 respondents, most of them had mothers who gave exclusive breastfeeding, as many as 80 respondents (87.0%). The results showed that of 92 respondents, most had complete immunization status, as many as 69 respondents (75.0%). The results showed that of the 92 respondents, most of them were in the category of not having sufficient stunting, namely 87 respondents (96.6%). The results of the Spearman Rank analysis test obtained the p-value = 0.000 < (0.05) and thecorrelation coefficient was -0.691. The results of the Spearman Rank analysis test showed that p-value = 0.000 > (0.05) then Ho was accepted and Ha was rejected, meaning that there was no significant relationship between children's immunization status and stunting prevention in Gunaksa KlungkungVillage. the results of the correlation coefficient of 0.28

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