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ANALYSIS OF HEALTH EDUCATION SESSION ON FAMILY DEVELOPMENT WITH STUNTING IN PANGKAJENE AND ISLANDS REGENCY, INDONESIA: A CROSS-SECTIONAL STUDY

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ABSTRACT

Background: Stunting is a growth disorder experienced by young people whose length or height is not appropriate to their age according to the standards set by the WHO. UNICEF data for 2018 showed that almost 3 out of 10 young children have stunts or are too short for their age. Pangkajene and the Islands Regency showed a stunting prevalence of 29.10% or the highest in South Sulawesi Province in 2018. The Hope Family Program (PKH) is a conditional social assistance program that aims to improve the standard of living of KPM through access to education, health and welfare services as well as reducing the burden of expenditure and increasing the income of poor and vulnerable families. **Purpose:** To find out the relationship between Family Development Session health education and stunting incidents in Family Hope Program recipients in Pangkajene and the Islands regency**. Methods:** This study used an observational research approach with a crosectional model. The data was collected using a questionnaire with Family Development Session variables, food management pattern and BBLR history. The data collected was then analyzed using chi-square analysis. **Results:** Out of 71 respondents who came from recipients of the Hope Family Program, 36 children (51%) suffered stunting and 35 children (49%) did not**. Conclusion:** There is a significant link between health education Family Development Session, food management pattern and LBW history with stunting incidents in Pangkajene and the Islands Regency ($p < 0.05$).

Keywords: family, family hope program, stunting

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INTRODUCTION

Stunting is a condition of growth failure that occurs due to a lack of nutritional intake over a long time as well as the occurrence of recurrent infections. Malnutrition occurs from the baby in the womb and early after the baby is born. Stunting has become one of the major issues of concern in the Sustainable Development Goals (SDGs), namely, ending hunger and all problems of malnutrition and achieving food sustainability by 2030. The goal is to reduce the prevalence of stunts by 40 percent by 2025. According to the World Health Organization (WHO) data on the prevalence of stunting in children under the age of five, in the Southeast/South East Asian continent (SEAR), Indonesia is the third country with the highest prevalence in the world. The prevalence of Indonesian stunting babies was 27.7 percent or in other words 28 out of 100 babies suffered from stunting (Profil Statistik Kesehatan 2019).

Special nutritional interventions in toddlers are focused from in the womb, during lactation until the child is 23 months old or in the first 1,000 years of life. Vonaesch dkk, (2017) found that children who were stunted were 7.46 times more likely to have diarrhea than children who were not stunted. This is because when children have diarrhea, their appetite decreases (Vonaesch *et al*., 2017). In 2017, stunting affected 22.2% worldwide, or 150.8 million children under five, more than half of whom were in Asia (55%) and a third (39%) came from the African continent. Data shows that 83.6 million children under five are on the Asian continent, the highest percentage comes from South Asia (58.7%) and the lowest is in Central Asia (Kemenkes RI 2018).

ccording to the results of PSG (Nutritional Status Monitoring) in 2016, the prevalence of stunted toddlers (0-59 months) in Indonesia was 27.6%. Meanwhile, in 2017 stunted toddlers in Indonesia experienced an increase in the number of cases by 29.6% (Kemenkes RI 2018). Poor nutritional status before and after giving birth to a LBW baby can cause stunting (Qurani *et al*., 2022). According to Riskesdas Data (2018), the number of cases of stunting toddler in South Sulawesi is 23.22% and Pangkajene and Islands Regency shows a stunting prevalence rate of 29.10% or ranks highest in South Sulawesi Province (Kementerian Kesehatan RI Badan Penelitian dan Pengembangan 2019).

The Family Hope Program (PKH) is a program providing conditional social assistance, one of the objectives of which is to improve the standard of living of Human Development Cadres (KPM) through access to education, health and welfare services as well as reducing the burden of expenses and increasing the income of poor and vulnerable families. Data for 2019, the poverty line and poor population was 15.10% in Pangkajene and Islands Regency with the number of families receiving the Family Hope Program (PKH) being 16,498 and Non-Cash Food Assistance (BPNT) being 23,966 in Pangkajene and Islands Regency (Dinsos, 2019).

The state of the art and novelty of this research is that the problem of stunting in beneficiary families (KPM) is still the focus of attention because of its serious impact on children's growth and development in the future. Several previous studies regarding FDS PKH still experienced problems in implementing structured learning (Aguslida *et al*., 2021). This research aims to determine the association between health education using the Family Development Session method and stunting in PKH recipients in Pangkajene and Islands Districts. In this research, apart from providing material, a Focus Group Discussion (FGD) was also carried out. The author also discussed the role of PKH assistants in tackling stunting among Human Development Cadres (KPM). Family Development Session (FDS) is an empowerment activity for KPM with non-cash social assistance PKH.

METHOD

Study Design

This research used an observational type with a Cross-Sectional Study design.

Population and Sample

This design was used to analyze the relationship between Family Development Session health education and stunting in Pangkajene and Islands Districts. The population in this study were all babies or toddlers from parents who received PKH in Pangkajene and Islands Regency, totaling 2946 people in 2019 - 2021. The research sample was babies or toddlers from PKH parents who had attended the Family Development Session as

many as 71 people using the purposive method sampling. Implementation time was between January – March 2020.

Data Collection

The Family Development Session variable in the primary data collection questionnaire pertains to the Health and Nutrition module, specifically the Family Capacity Building Meeting (P2K2) / FDS PKH. It consisted of 20 questions that were classified as either good or sufficient depending on whether they exceed or sufficient the average of all points, food management pattern by evaluating the steps parents take to ensure that their children receive the nutrition they need based on the type, quantity, and timing of their meals as well as the variable history of low birth weight (LBW) (≥2500g and <2500g). The data was then analyzed with chi square analysis using the SPSS application.

Ethical Clearance

Secondary data was obtained from the social services of Pangkajene and Islands Regency. Ethical permission was not used because the research sample did not appy direct examination of the respondents. This study only used the interviews.

RESULT

Based on observations and data collection that have been conducted, the following results were obtained:

Table 1. Distribution of Stunting, Family Development Session, Food management pattern, and History of LBW among Recipients of the Family Hope Program in Pangkajene and Islands Districts

Variable of Study	N	%
Stunting		
Yes	36	50.7
No	35	49.3
Family Development Session		
Good	33	46.5
Sufficient	38	53.5
Food management pattern		
Regular	37	52.1
Irregular	34	47.9
History of LBW		
≥2500 g	32	45.1
<2500 g	39	54.9

Based on Table 1, it can be seen that of the 71 respondents, 50.7% were diagnosed with stunting and 49.3% were not diagnosed with stunting. In the FDS variable, 46.5% of respondents had good FDS and more than half (53.5%) had sufficient FDS. The feeding pattern of more than half (52.1%) was regular but 47.9% of them were irregular. Apart from that, 45.1% of respondents had a history of LBW ≥ 2500g and 54.9% had a history of LBW <2500g.

Table 2. Relationship between Family Development Session and Stunting Incidents in Family Hope Program Recipients in Pangkajene and Islands Districts

Variable of Study	Stunting Incident				Total		*P Value*
	YES		No				
	n	%	n	%	n	%	
Family Development Session							0.001
Good	10	30.3	23	69.7	33	100	
Sufficient	26	68.4	12	31.6	38	100	
Feeding Pattern							0.024
Regular	14	37.8	23	62.2	37	100	
Irregular	22	64.7	12	35.3	34	100	
History of LBW							0.001
≥ 2500g	9	28.1	23	71.9	32	100	
< 2500 g	27	69.2	12	30.8	39	100	

Based on Table 2, the results of the statistical test analysis showed that there was a relationship between the Family Development Session, food management patterns, the history

of LBW and stunting cases in Pangkajene and Islands Districts with a p value of <0.05.

DISCUSSION

Calculation of reductions in stunting and maternal mortality rates on human development parameters by looking at the proportion of children under five who are diagnosed with stunting (Kemenkes 2021). Studies on Indonesian children reported that factors that were related to the incidence of child stunting were children born with LBW, low parental height, low maternal education, male gender, living in urban areas and poor sanitation (Gunardi *et al*., 2017). It is imperative that health initiatives be implemented, including family planning (KB), health education for women and children (KIA), and the significance of maintaining a clean environment (Zulkarnain et al. 2021).

The stunting percentage was found to be 50.7% in this study. This result was higher than the 2020 national prevalence target of 24.1% (Kemenkes, 2021). The impact of stunting on children in the future will experience a decrease in IQ as much as nine times compared to children who do not experience stunting (Bella *et al*., 2020). Stunting not only increases the risk of decreased intellectual capacity and productivity, but can also increase the risk of chronic degenerative diseases in the future. Adolescents are 30 times more likely to die from chronic kidney failure (Mardhatillah *et al*., 2020).

The risk of stunting in the mother's own dietary behavior increases when early adolescent pregnancy occurs in moms who are still growing. Children who live in homes that are conscious of nutrition will be 1.21 times more likely to experience stunting than children who live in families that are unaware of malnutrition (Pratiwi 2019).

Maternal education factors are also related to the occurrence of stunting. Mothers who are more educated are more likely to understand the concept of healthy living and how to maintain health when applied to a healthy lifestyle such as a diet full of nutrition (Eko *et al.*, 2018). This is also in line with research by Rahmawati (2020) which showed that higher educated women are 7.2 times less likely than lower educated mothers to have dysgenesis offspring (Rahmawati *et al*., 2020).

The Family Hope Program (PKH) has a positive impact on providing for the fundamental requirements of low-income families, as seen by the increase of visitors to Integrated Public Service Post, the tracking of children's development, and the implementation of immunization programs (Kementerian PPN/Bappenas 2019). FDS health education is a PKH program which is implemented for a month. The data showed that statistically there was a relationship between FDS and stunting with a p value <0.05 (0.001). Aside from that, participants' behavior changed as they were more involved in conducting visits to health services, such as keeping an eye on toddlers' nutritional status (Aguslida *et al.*, 2021).

FDS was established to make it simpler for social facilitators to use the learning guide created by the Ministry of Social Affairs to conduct monthly learning events for KPM PKH in a planned and regular manner (Arfiyani 2020). FDS is a structured learning and empowerment activity for the community in order to change KPM behavior in the fields of health, education, economics and family welfare.

Family Development Session (FDS) health improvement material included nutrition, services for pregnant and breastfeeding mothers, services for babies and teenagers, as well as clean and healthy living. In the field of education, it taught family members about how to educate children well, studied early childhood behavior and learning, provided an understanding of children's good attitudes, made games that hone children's thinking skills and improves communication skills and helps children to go to school independently. It also helped people to succeed in the economy of household management, savings and loans, micro, small and medium enterprises, entrepreneurship, and marketing. These were applied in the context of child protection, children's rights, including children with special needs (Kuntjorowati 2018). Health workers should also used media/tools for outreach/socialization to speed up the delivery of information to the outreach targets *(Said et al*., 2021).

At every FDS meeting, the companion will always inform and monitor when weighing the baby at the Integrated Healthcare Center to always pay attention to the child's nutrition, to

avoid malnutrition. In this study, it was found that a history of LBW was associated with stunting, which statistically obtained a p value of 0.001. This was in line with research by Eko, *et al*., (2018) which found a relationship between the level of energy intake, average duration of illness, LBW and cases of stunting in children aged 24-59 months at the Andaras Community Health Center (Eko *et al.*, 2018). Baby weighing was undertaken to detect and predict problems related to LBW babies (Kuntjorowati, 2018). The gestational age of mothers under the age of 20 years will increase the risk of giving birth to a baby with a low birth weight. LBW babies caused around 20 percent of the increase in stunting cases in children (Kemenkes RI, 2018).

In addition, research by Arfiyani (2020) in Jagalempeni Village suggested that the low interest in learning for Beneficiary Families of the Family Hope Program and the lack of awareness to frequently attend FDS activities for various reasons is a concern in dealing with the problem of malnutrition (Arfiyani, 2020). Toddlers who have malnutrition problems were prone to getting sick (Asmaningrum, 2020). Limited growth and development of children and vulnerability to infectious diseases were negative impacts of malnutrition (Purnani, 2021).

Research by Bella *et al* (2020) stated that mothers who follow supplementary feeding practices will produce children who are not stunted compared to mothers who do not have knowledge about supplementary feeding practices. Practices in providing food need to pay attention to the timing of main meals, snacks, selection of food ingredients, providing complete meals, meal schedules and feeding methods (Bella *et al.*, 2020) This research was in line with this research which found that the pattern of feeding in children have a relationship with the number of stunting cases with a p value of 0.025.

Feeding practices, family economic status and history of LBW were related to stunting cases in Pangkajene and the islands. However, of the three, family income was the major risk, as 2,252 times increase the incidence of stunting. A high level of income affected the quality and purchasing power of food in the family (Mardhatillah *et al.*, 2022).

Couples who took part in a pregnancy program needed to maintain their eating habits. Good and healthy eating habits had a positive effect on the body. In a healthy condition, the child who will be born will also be healthy (Rafsanjani, 2019). Moreover, statistically it was found that mothers with poor understanding of nutrition applied to their children are 8.8 times more likely to experience stunting than mothers with good nutritional habits (Bella *et al.*, 2020). Research by Sjarif, dkk (2019) shows that consuming growing-up milk (GUM) 300 ml/day was also associated with reduced stunting. Milk protein had superior characteristics compared to other animal proteins (meat, poultry and eggs), which were necessary for linear growth in children (Sjarif *et al*., 2019).

Stunting prevention can be implemented by determining priority groups in areas with high stunting prevalence rates through integrated nutritional interventions which are the key to successful nutrition, child development and stunting prevention (L.R, 2021). Moreover, the importance of Early Child Development Detection and Intervention Stimulation Activities was to prevent children's growth and development disorders such as malnutrition and mental and emotional disorders (Febrianti *et al.*, 2020).

Efforts to increase stunting prevention were maximized if specific and sensitive nutritional interventions were combined. In addition, cross-sector coordination will also be carried out to ensure the availability of special nutrition intervention services for priority target families and sensitive nutrition interventions for all population groups, especially the poor. Stunting in children was not only a health and social problem but was an important concern for all elements to create a golden generation in the future.

CONCLUSION

From the results of this research, it can be concluded that there is a link between Family Development Session health education, food management pattern and history of LBW with cases of stunting in PKH recipients in Pangkajene and Islands Districts. This can be seen with a p value < 0.05.

SUGGESTION

In future research, researchers needs to take data from the last five years to strengthen the results of their research. Furthermore, there is a need to increase motivation for PKH recipients to take part in FDS health education in order to reduce stunting rates and other health problems.

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CONFLICT OF INTEREST

The author has no conflict of interest.

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AUTHOR CONTRIBUTION

Author Hanny Krissanti as Data collection, study design, data analysis, manuscript writing, literature review, reference. Author Yuly Peristiowati as Supervision, data analysis, manuscript revision. Author Agusta Dian Ellina as Supervision, data analysis, manuscript revision. Author Asruria Sani Fajriah as Study design, data supervision, data analysis, manuscript revision.

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