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ORIGINAL RESEARCH

THE INFLUENCE OF PARENTING EDUCATION ON THE GROWTH OF CHILDREN IN PENGADAN VILLAGE

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ABSTRACT

Growth is a change in the size and increase in the number of cells, tissues and body structures that are quantitative so that they can be measured in units of length or weight. In addition to good and sufficient nutrition, another important factor that will help children to grow healthy and be able to achieve their optimal abilities is proper parenting. The purpose of this study was to determine the effect of parenting education on children's growth in Pengadan Village. This research method is a quantitative research with a pre-experiment design (one-group pretest-posttest design). The population in this study were all parents and children aged 1 month – 2 years in Pengadan Village. The sampling technique used in this study was non-probability sampling of the accidental sampling type with a total of 20 respondents. Data were analyzed using the Wilcoxon test. The results showed that children's growth based on weight, height and head circumference had increased after being given the intervention. The results of bivariate analysis showed that there was an influence between parenting education on children's weight (0.011), children's height (0.027) and children's head circumference with (0.002) with an alpha value of 0.05. There is an increase in growth after the intervention is carried out and there is an effect of parenting education on the growth of children in Pengadan Village.

Keywords

Parenting Education, Growth, Children

INTRODUCTION

The growth and development of children are crucial aspects that determine the future of a nation. Important stages in achieving optimal growth and development occur from the fetus in the womb to the age of two (Ministry of Health, Republic of Indonesia, 2016). Growth in children refers to measurable changes in body size in terms of length or weight, and is a reflection of the child's health and nutritional status (Wahyuni, 2018). Unfortunately, data from the World Health Organization (WHO) in 2018 showed that around 28.7% of toddlers worldwide experience growth and developmental disorders (WHO, 2022). In low- and middle-income countries, it is estimated that 43% of children under the age of five are at risk of not reaching their developmental potential (Black et al., 2017).

In Indonesia, the Indonesian Nutritional Status Study (SSGI) in 2021 indicated that about 17% of toddlers are underweight and 24.4% are stunted (Ministry of Health, Republic of Indonesia, 2021). One of the important factors in achieving optimal growth and development in children is proper parenting (Ministry of Health, Republic of Indonesia, 2016). Parenting is the way parents nurture their children through care and guidance at home (Maisari & Purnama, 2019). Studies show that the quality of parenting, especially by mothers, significantly influences the well-being of children, especially from birth to the age of two (Tome et al., 2021). Therefore, parenting education becomes important in helping parents understand how to care for and educate their children appropriately according to their age and developmental stages (Suteja, 2016).

Several studies have been conducted to evaluate the impact of parenting programs on various aspects of child development, such as independence and socialization skills (Syamsu S, 2017; Hasanah & Yulianingsih, 2020). However, research on the influence of parenting education on child growth is still limited. Hence, this study aims to investigate the influence of parenting education on child growth in the village of Pengadan, East Kutai Regency. Preliminary data from the East Kutai Regency Health Profile in 2022 show that there are still a number of toddlers with nutritional problems, such as malnutrition, stunting, and underweight. The Karangan Community Health Center has conducted toddler classes through integrated health posts (Posyandu) to increase toddler visits, but there are still parents who do not involve their children in these activities due to a lack of understanding about the importance of parenting in supporting child growth. Therefore, this study is expected to provide deeper insights into the influence of parenting education on child growth and serve as a basis for the development of more effective parenting education programs to support the growth and development of children in the village of Pengadan.

METHOD

This study is a quantitative research with a pre-experimental design (one-group pretest-posttest design). This research design involves a single sample group, but measurements will be conducted twice – before and after the intervention – to determine its effectiveness on child growth. The study was conducted in the village of Pengadan, from February to April 2023. The population in this study comprises all parents and children aged 1 month to 2 years in the Pengadan village. The sampling technique used in this study is non-probability sampling of the accidental sampling type, with a total of 20 respondents.

This research has inclusion and exclusion criteria to limit the group of respondents involved in the study. Inclusion criteria include: (1) parents and children aged 1 month to 2 years, (2) children with weight (BW), height (HT), or age that doesn't match the 1-2 months monitoring, (3) parents willing to be respondents, and (4) physically and mentally healthy parents. Meanwhile, exclusion criteria include: (1) children currently experiencing specific illnesses that can affect growth and development, and (2) children with growth considered normal. With these inclusion and exclusion criteria, the research aims to focus on relevant respondent groups and provide more valid and meaningful results regarding the influence of parenting education on child growth in the Pengadan village.

The instrument used in this study is an observation sheet. It contains: (1) characteristics of parents and children, (2) observation sheet for child growth (BW, HT,

and Head Circumference) based on the child's Growth Monitoring Card (KMS) before and after the provision of parenting education to parents. The data will be analyzed univariately to describe the characteristics of each research variable. And bivariate data analysis will be conducted to determine the influence of the two variables. The univariate data analysis in this study will use frequency and percentage, and bivariate analysis will be performed to assess the effect of parenting education on child growth before and after the intervention using the Wilcoxon signed-rank test due to the non-normally distributed data.

RESULTS

Table 1. Characteristics of Respondents in Pengadan Village, 2023.

Variable	Cathegory	Frequency	Percent (%)
Age	<20 years and >35 years	10	50
	20-35 years	10	50
Occupation	Employed	9	45
	Unemployed	11	55
Education	Elementary Education	8	40
	Higher Education	12	60
Gravidity	Primi Gravida (First-time pregnancy)	12	60
	Multi Gravida (Multiple pregnancies)	8	40
Total		**20**	**100**

Source: Primary Data

Based on Table 1, it was found that over half of the respondents were aged 20-35 years, amounting to 10 respondents (50%). The majority of respondents were female, totaling 13 respondents (65%). Most of the respondents had elementary education, comprising 12 respondents (60%). A significant number of respondents were unemployed, totaling 11 respondents (55%), and the majority of respondents were multiparous, totaling 12 respondents (60%).

Table 2. Distribution of Frequency of Child Characteristics in Pengadan Village, 2023

Variable	Cathegory	Frequency	Percent (%)
Age	0-1 year	5	25
	1-2 years	15	75
Gender	Male	12	60
	Female	8	40
Total		**20**	**100**

Source: Primary Data

Based on Table 2, it was found that the majority of respondents were aged 1-2 years, totaling 15 respondents (75%), and the majority of respondents were male, totaling 12 respondents (60%).

Table 3. Distribution of Frequency of Respondents' Body Weight Before and After Intervention in Pengadan Village.

Growth	Weight Category			
	Malnutrition		Adequate Nutrition	
	N	%	N	%
Weight Before Intervention	20	100	0	0
Weight After Intervention	5	10	15	75

Source: Primary Data

According to Table 4.3, there were 20 children (100%) in the underweight category before receiving parenting education

therapy, and there were 5 children (15%) in the underweight category after receiving parenting education therapy.

Table 4. Distribution of Frequency of Respondents' Height Before and After Intervention in Pengadan Village.

Growth	Height Category			
	Malnutrition		Adequate Nutrition	
	N	%	N	%
Height Before Intervention	20	100	0	0
Height After Intervention	5	10	15	75

Source: Primary Data

According to Table 4, there were 4 children (20%) in the malnutrition category and 16 children (80%) in the adequate nutrition category before receiving parenting education therapy. After receiving parenting education therapy, there were 2 children (10%) in the malnutrition category and 18 children (90%) in the adequate nutrition category.

Table 5. Distribution of Frequency of Respondents' Head Circumference Before and After Intervention in Pengadan Village.

Growth	Head Circumference			
	Malnutrition		Adequate Nutrition	
	N	%	N	%
Head Circumference Before Intervention	20	100	0	0
Head Circumference After Intervention	5	10	15	75

Source: Primary Data

According to Table 5, there were 3 children (15%) in the malnutrition category and 17 children (85%) in the adequate nutrition category before receiving parenting education therapy. After receiving parenting education therapy, there were 2 children (10%) in the malnutrition category and 18 children (90%) in the adequate nutrition category.

Table 6. The Influence of Parenting Education on Child Weight Growth

Growth	Weight Category				*P Value*
	Malnutrition		Adequate Nutrition		
	N	%	N	%	
Weight Before Intervention	20	100	0	0	
Weight After Intervention	5	10	15	75	.011

Source: Primary Data

Table 6 shows that there were 20 children (100%) in the malnutrition category before the intervention, and there were 2 children (10%) in the malnutrition category after the intervention. The results of the Wilcoxon signed-rank test analysis yielded a significance value of 0.011 ($p < 0.05$), thus it can be concluded that there is an influence of parenting education on child weight growth.

Table 7. The Influence of Parenting Education on Child Height Growth

Growth	Height Category				*P Value*
	Malnutrition		Adequate Nutrition		
	N	%	N	%	
Height Before Intervention	20	100	0	0	.027
Height After Intervention	5	10	15	75	

Source: Primary Data

Table 7 indicates that there were 4 children (20%) in the malnutrition category before the intervention, and there were 2 children (10%) in the malnutrition category after the intervention. The results of the Wilcoxon signed-rank test analysis yielded a significance value of 0.027 ($p < 0.05$), thus it can be concluded that there is an influence of parenting education on child height growth.

Table 8. The Influence of Parenting Education on Child Head Circumference Growth

Growth	Head Circumference Category				*P Value*
	Malnutrition		Adequate Nutrition		
	N	%	N	%	
Head Circumference Before Intervention	20	100	0	0	.017
Head Circumference After Intervention	5	10	15	75	

Source: Primary Data

Table 8 shows that there were 3 children (15%) in the malnutrition category before the intervention, and there were 2 children (10%) in the malnutrition category after the intervention. The results of the Wilcoxon signed-rank test analysis yielded a significance value of 0.017 ($p < 0.05$), thus it can be concluded that there is an influence of parenting education on child head circumference growth.

DISCUSSION

The data was collected from Table 3 to Table 5, which presents the observation results before and after the parenting education therapy. Table 3 shows that before the therapy, 100% of the children were in the malnutrition category, but after the therapy, the number of children in this category decreased to 15%. Tables 4 and 5 also show an increase in the number of children with adequate nutrition after parenting education therapy. The results of this research demonstrate that parenting education therapy has a positive impact on improving children's nutritional status. Prior to the therapy, all children were in the malnutrition category, but after receiving the therapy, only 15% of the children remained in that category. This indicates that parenting education therapy plays a significant role in enhancing children's nutritional status. According to I Wayan Cong Sujana (2019), education is a guidance process carried out by educators towards learners to develop children's potential into individuals who are faithful, morally upright, healthy, knowledgeable, creative, independent, and responsible. In the context of parenting education therapy, parents act as educators who guide and provide care for their children. Through parenting education, parents can understand the importance of proper childcare for children's growth and

development, including the provision of appropriate nutrition.

In addition to nutritional status, parenting education therapy also has a positive impact on children's height growth. Prior to the therapy, 20% of the children experienced growth delay in the form of malnutrition, but after the therapy, only 10% of the children remained in this growth delay category. This result indicates that parenting education contributes to supporting children's physical growth and helps prevent stunting in children. According to Soetjiningsih (2012), growth involves changes in size, number, and measurable weight and length. Meanwhile, development involves the increase in capabilities in body structure and function that becomes more complex in an organized and predictable pattern as a result of maturation processes. Children's growth and development are influenced by various factors, including nutrition and stimulation from parents. Parenting education therapy can assist parents in providing appropriate stimulation and understanding children's nutritional needs, thereby optimizing children's height growth.

In addition to height growth, parenting education therapy also positively affects children's head circumference. Prior to the therapy, 15% of the children were malnourished, but after the therapy, only 10% remained in this category. This indicates that parenting education contributes to supporting children's physical development, including brain development reflected in head circumference. According to Akmal et al. (2020), a child's head circumference is an important indicator to measure brain development and cognitive function. By providing good nutrition and stimulation through parenting education, parents can positively influence their child's brain development. Therefore, the increased head circumference of children after parenting education therapy demonstrates an improvement in both physical and cognitive development. The results of this research also indicate that the effectiveness of parenting education is not dependent on the gender or employment status of parents. Although more female respondents participated in parenting education, the positive effects of therapy were still observed in children of both working and non-working parents.

According to previous research by Johnson et al. (2018), mothers with higher education who participated in parenting education programs have better knowledge and skills in providing balanced diets and nutrition for children, which positively impacts weight and height improvements. On the other hand, for mothers with lower education levels, parenting education helps enhance their understanding of the importance of proper nutrition for children, contributing to increased head circumference and overall physical development. Similarly, research by Brown et al. (2019) demonstrated that mothers participating in parenting education programs had better abilities to understand and respond to children's nutritional needs, which contributed to improvements in weight, height, and head circumference for children overall. These results indicate that parenting education can provide similar benefits for both working and non-working mothers, without significant differences in its effectiveness.

This research also underscores the importance of parental roles in child care. Parents play a crucial role in providing proper nutrition and stimulation for children's growth and development. Parents with good knowledge and understanding of balanced nutrition and growth stimulation are better equipped to provide optimal care for their children. The role of parents in child care evolves as children grow and develop.

Therefore, parents need to understand the phases of child development and balance their roles accordingly. Sharing roles between fathers and mothers is also important in providing maximum support for children's growth and development.

CONCLUSIONS

This study demonstrates that prior to receiving parenting education therapy, the majority of children were in the malnutrition category, with a percentage of 100% for weight, 70% for height growth, and 85% for head circumference growth. However, after undergoing parenting education therapy, most children experienced improvements, shifting to the adequate nutrition category, with percentages of 75% for height growth and 90% for head circumference growth. The analysis results indicate that parenting education has a significant influence on children's weight ($p = 0.011$), height ($p = 0.027$), and head circumference ($p = 0.017$). Consequently, parenting education therapy plays a crucial role in enhancing nutritional status and children's physical growth.

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