

# IMPROVING CLEAN AND HEALTHY LIFE BEHAVIOR (PHBS) IN HOUSEHOLD AND FAMILY ROLES OF NUTRITION THROUGH HEALTH EDUCATION

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## ABSTRACT

*Family empowerment is an important way to manage nutritional problems. Health education is needed to change behavior that can lead to improving the nutritional health of mothers and their children. The study aimed to determine the influence of health education on Clean and Healthy Life Behavior (PHBS) In Household and Family Roles of Nutrition. This was a quasi experiment with pretest-posttest non equivalent control group design. This study recruited the respondents using a purposive sampling method. Sample size was 50 mothers who had under five year children with stunting in Jakarta. 50 mothers were divided into intervention and control group. The data were analyzed using wilxcoxon and chi square. The wilxcoxon test results showed that there were significant difference between Clean and Healthy Life Behavior (PHBS) In Household ( $p = 0,003$ ) and Family Roles of Nutrition ( $p = 0,001$ ) before and after intervention. Thus health education may improve behavior of clean and healthy life in household and family roles of nutrition.*

**Keywords:** family role, health education, PHBS

## 1. INTRODUCTION

Malnutrition, including stunting during childhood, is the result of several factors, most of which are related to food intake or severe and recurrent infections or a combination of both. The causes of changes in nutritional status that are most often found include poor quality macro and micronutrient intake due to insufficient diversity consumed as well as poor energy and nutritional density, inappropriate frequency, consistency and quantity of food, poor food safety, poor PHBS application, poor food storage, as well as poverty and poor parental education (Asfaw, et al 2007, Stewart et al. 2013). This condition causes inadequate energy and nutritional intake in children.

Although inadequate nutritional intake is a major factor, stunting is also caused by poor hygiene and lack of food hygiene. Poor hygiene and poor sanitation usually cause environmental enteropathy which can increase the permeability of the small intestine to pathogens and reduce the application of nutrients and even cause diarrhea (HumphrEy, 2009; Lulu'ul, 2017). Research

has shown that interventions that focus on changing sanitation and hygiene habits can reduce stunting. Studies have found that sanitation and hygiene interventions that reach 99% of the population can reduce diarrhea symptoms by 30%, thereby reducing the prevalence of stunting by 2-4% (Brutta et al. 2008).

Most of the incidence of infectious diseases worldwide is due to the person-to-person transmission of pathogens within the household. This transmission can occur through direct transfer from hand to mouth, through food prepared at home by an infected person or through transmission of aerosol particles due to sneezing, vomiting or diarrhea (House et al. 2012, Rabie & Curtis, 2006; Robert et al. 2016). This infection can be prevented by good practice of clean and healthy life behavior (PHBS) (Curtis et al., 2000). Therefore hygiene is important as the first line of defense to reduce the spread of pathogens in the everyday human environment (Curtis et al., 2000, Larson & Duarte 2009; Robert et al. 2016).

The incidence of stunting in the world in 2018 was 149 million (21.9%). In 2018, more than half of stunting children in the world came from Asia (55%) with the proportion of stunting in Southeast Asia was 25% (Unicef, WHO, & World Bank Group, 2019). The prevalence of severe stunting and stunting children aged 0-59 months in Indonesia in 2013 was 18% and 19.2%. The incidence of severe stunting children has decreased in 2018 to 11.5%, but the prevalence of stunting has increased to 19.3% (Riskesdas, 2018).

Parents act as agents of socialization in mobilizing health, role models, and educators in the lives of their children (Case & Paxson, 2006, Maccoby, 2016). Thus it is necessary to provide nutrition health education to parents in the hope that they can apply knowledge in fulfilling nutritional intake for their children. There have been many research studies related to health education. Among them are the research conducted by Makoka (2013) and Headey et al. (2015) which examined the relationship between knowledge of nutrition and maternal education in producing children's health, some researchers found a strong relationship between education and child nutrition. More researchers show that there is no significant relationship between parental education (low level of education) and children's nutritional status (Ruel et al. 1992; Alderman 2017). Research shows that community-based education on maternal nutrition knowledge for young women and school dropouts can compensate for low levels of parental education in

producing better nourished children (Block, 2007 and Broeck, 2007). In the results of the research, Fadera et al (2019) recommends out-of-school health education (Informal) to help parents without formal education to get health or nutrition knowledge. In this study will examine more deeply the effect of health education on the role of the family in maintaining nutritional intake of children under five and the PHBS application of household.

## **2. MATERIALS AND METHODS**

This was a quasi experiment with pretest-posttest non equivalent control group design. This study recruited the respondents using a purposive sampling method. Sample size was 50 mothers who had under five year children with stunting in Jakarta. 50 mothers were divided into intervention and control group. The research instrument was questionnaire that using a modified questionnaire by Mirayanti which refers to Green and Engel's theory (Mirayanti, 2012; Engle, 1997). Clean and Healthy Life Behavior (PHBS) In Household and Family Roles of Nutrition were measured twice, before intervention (pre-test) and after intervention (post-test). Intervention activities were carried out in 2 meetings. Each meeting consist of two sessions, namely the first session of lectures and discussions then followed by the second session of demonstrations.

Clean and Healthy Life Behavior (PHBS) In Household and Family Roles of Nutrition remeasured on the 7<sup>th</sup> day. Data analysis was conducted using wilxcoxon and chi square. Values of  $p < 0.05$  were considered significant. The study was explained to the patients, and permissions from participants were sought by informed consent, while confidentiality and anonymity were assured. Participants had the right to withdraw from the study at any time. The study has been approved to be established by Ethics Commission of Health Research and Development Sint Carolus School of Health Science

## **3. RESULT**

Table 1 shows that majority of mothers are in the young adult age range, the control group at 72% and the intervention group at 76%. Based on the level of education, table 1 shows that most mothers in the control group had a primary education level of 60%, while in the intervention group most mothers had a secondary education level of 60%. The status of respondents who do not work is 88% in the control group and 92% in the intervention group. Majority of mothers

have children aged 24-35 months, namely 52% in the control group and 48% in the intervention group. Based on gender, the majority of children in the intervention group were female, namely 56%, while in the control group, the majority of children were male (52%). Based on nutritional status (height / age), the majority were severe stunting, namely in the control group at 64% and the intervention group at 72%.

Tabel 2 shows that behavior of clean and healthy life in household in experimental group improve in a positive way. Behavior of clean and healthy life in household in the intervention group had a significant difference before and after intervention with the p value 0,003 ( $p < 0,05$ ) Whereas, nutrition Parenting within the control group does not show significant difference with p value 0,782. However the result of the chi square (tabel 3) showed that there was no significance difference of the behavior of clean and healthy life in household between Experimental and control group with the p value 0,327 ( $p \text{ value} > 0,005$ )

Tabel 4 shows that family roles of nutrition in experimental group have a significant difference before and after intervention with the p value 0,001 ( $p < 0,05$ ) Whereas, family roles of nutrition within the control group does not show any significant difference with p value 0,072. Table 5 reflects analysis difference family roles of nutrition between two groups. It is found there is no significance difference of nutrition family roles between Experimental and control group with the p value 0,134 ( $p \text{ value} > 0,005$ )

#### **4.DISCUSSION**

Stunting and the fulfillment of nutrition for children under five are still major concerns in Indonesia, especially in DKI Jakarta. Factors that contribute to stunted growth and development include poor maternal health and nutrition, inadequate infant and young child feeding practices, and infection (WHO, 2014). Infection, resulting from exposure to contaminated environments and poor hygiene are associated with stunting, owing to nutrient malabsorption and reduce ability of the gut as a barrier against disease causing organism. Prevention of infections requires household practices such as hand-washing with soap.

The results showed that there were significant differences in the behavior of clean and healthy life in household before and after health education, namely in the form of increased behavior of clean and healthy life. Result in this study similar with Saleh and Kunoli (2018) that conclude there is an influence of counseling and training through media Leaflets on the knowledge of PHBS. Another study conducted by Mulyadi et al (2018) explained that there is a significant effect before and after being given health education with video media on the level of knowledge about the healthy behavior. Previous study showed that the effective PHBS influenced the incidence of stunting (Langi, Louisa Ariantje, 2020).

Inadequate nutrition is one of the many causes of stunting. Women play important roles in promoting and protecting the food intake and nutritional status of their family members through the food they produce and process, and the care- and health-promoting behaviors they practice (Kurz & Welch, 2001). Based on the results of this study indicate that family roles of nutrition in experimental group have a significant difference before and after health education. Result in this study similar with Karimawati, Widodo & Listyorini (2013) that conclude there is influence of health education to the knowledge and mother attitudes about nutrient intake on toddler age. Another study conducted by Novikasari and Fitriana (2021) explained that there is influence nutrition education to infant feeding practices of maternal stunting. Previous study showed that family participation in a preschool nutrition education program can increase the effectiveness of nutrition education (Aktac et al., 2019). Education is part of health education that are needed as an effort to increase knowledge and awareness in addition to knowledge of attitudes and actions (Maulana, 2007).

## **5.CONCLUSION**

It can be concluded that health education may improve behavior of clean and healthy life in household and family roles of nutrition. Thus health education could be used as an alternative intervention to improve health behavior in preventing stunting.

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