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EDUCATIONAL PROGRAM TO IMPROVE KNOWLEDGE OF CAREGIVERS REGARDING NUTRITIONAL STATUS OF UNDER FIVE-YEAR-OLD CHILDREN IN KUDUS, CENTRAL JAVA, INDONESIA

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Abstract

Introduction: According to World Health Organization (WHO), at least 155, 52 and 99 million children under the age of five years were stunted, wasted and underweight worldwide respectively. In addition, around 6 million children were reported with stunting and wasting simultaneously. Malnutrition is clustered in developing countries, particularly in Africa and Asia. In South Asia, three countries of the region, India, Pakistan and Bangladesh, have particularly high prevalence of the condition. There are multiple factors that contribute to childhood malnutrition. The common determinants reported by several studies include socioeconomic inequalities, geographical differences, suboptimal feeding practices, household food insecurity, maternal literacy and childhood morbidities. Previous studies that

have been conducted on childhood malnutrition in Pakistan were mostly based on hospital, schools, regional and community settings. Limited studies, that have reported the national level data, were either restricted to socio-demographic determinants or children less than two years of age. In addition, there is a paucity of literature regarding the correlates of all three indicators of childhood malnutrition (Sadaf Khan et al, 2019).

Method: The research design used Quasi Experimental with pretest-posttest with control group design. The first phase of this research researcher measured Demografic Characteristic: social demographic, family support, economic status, and educational of parents. The second phase, researcher pre-test. The third step researcher give them educational program about nutritional status. The fourd phase, researcher post-test, researcher assessed their knowledge and attitude after having intervention.

Result: The quantitative findings, post intervention educational programs to improve knowledge of nutritional status of caregiver under five-year-old in children, which means educational program of caregiver was significantly improve the knowledges of nutritional status among caregiver in children under five-year-old.

Keywords: Educational Program, Nutritional status, five-year-old, children

I. Introduction

Nutritional status of children influences their health status, which is a key determinant of human development (Zufan Bitew Dessie et al, 2019). Indicators of child development and nutritional status quantify the overall health of children younger than 2 years and reflect a country's policies, programs, and level of development. In 2007, more than 200 million children younger than 5 years in low- and middle-income countries failed to reach their full developmental potential, meaning that these children will probably have limitations in learning, socialization, and participation. In recent decades, as a consequence of a global strategy to reduce under nutrition, there has been a declining trend in the prevalence of stunting and wasting, although they remain high in regions with struggling economies (Lourdes et al, 2019).

According to World Health Organization (WHO), at least 155, 52 and 99 million children under the age of five years were stunted, wasted and underweight worldwide respectively. In

addition, around 6 million children were reported with stunting and wasting simultaneously. Malnutrition is clustered in developing countries, particularly in Africa and Asia. In South Asia, three countries of the region, India, Pakistan and Bangladesh, have particularly high prevalence of the condition. There are multiple factors that contribute to childhood malnutrition. The common determinants reported by several studies include socioeconomic inequalities, geographical differences, suboptimal feeding practices, household food insecurity, maternal literacy and childhood morbidities. Previous studies that have been conducted on childhood malnutrition in Pakistan were mostly based on hospital, schools, regional and community settings. Limited studies, that have reported the national level data, were either restricted to socio-demographic determinants or children less than two years of age. In addition, there is a paucity of literature regarding the correlates of all three indicators of childhood malnutrition (Sadaf Khan et al, 2019).

The Ministry of Health (2018) states that globally the prevalence of stunting has reached 150.8 million children under five, where the highest prevalence is in the Asian continent, which is as much as 55%, and the second prevalence is in the African continent, which is as much as 39%, so that the Asian region contributes 83 cases of stunting. 6 million toddlers with the highest prevalence are in the country of Timor Leste with 50.2%, followed by India with a prevalence of 38.4% and number three, namely Indonesia with 36.4%. Nationally, stunting data in 2018 saw an increase in the number of stunting cases reaching 19.3% (Ministry of Health Republic of Indonesia, 2018).

Nationally, data obtained for toddlers aged 0-23 months were 126,367 (1.%) severely malnourished toddlers and as many as 492,336 (4.3%) malnourished toddlers. The province with the highest percentage of malnutrition and undernutrition in children under five is West Papua, while the province with the lowest percentage is Bengkulu Province. The percentage of children aged 0-59 months undernourished and undernourished in Indonesia from 2013 to 2019 has generally decreased. This can be seen where in 2013 the percentage of underfives with malnutrition and malnutrition was 12.1% to 7.4% in 2019 or decreased by 0.8% annually (Ministry of Health, 2020).

According to the 2019 Social Economic and Social Survey (Susenas) and the 2019 Indonesian Toddler Nutrition Case Study (SSGBI), 27.67% of toddlers experience stunting on a national scale. Central Java province itself has a stunting toddler prevalence of 27.68%. According to the Kudus Health Office 2020, the highest stunting sufferers in Kudus are in Rejosari Village by 20%, in 2022 the highest stunting sufferers are in Undaan Village, namely 22%. Because

of this, the Undaan Health Center is ranked number one for stunting problems in the Kudus district. The prevalence rate shown is still very far from what was expected, because it is higher than the standard set by the World Health Organization, which is as much as 20% (RI Ministry of Health & BPS, 2019).

The 2022 Riskesdes results show that in terms of the incidence of malnutrition and undernutrition, Kudus Regency is in 13th place at the provincial level of Central Java. The data shows that the incidence of malnutrition in 2013 was around 17.6%, while in 2019 it was around 16.75%. Based on stunting data in Kudus Regency until September 2022 it was at 21.21%, seen from the stunting data in the previous year.

The incidence of stunting in Kudus Regency in 2022 has experienced a high increase. From these data, Kudus Regency is a Regency with a high number of stunting. In addition, in the Undaan health center area, around 196 people contributed to the stunting rate. With this data, the management of stunting is one of the work programs at the Undaan Health Center. Stunting in infants and toddlers needs to be given special attention because it can cause a risk of morbidity and mortality, as well as impaired development of motor and mental abilities.

II. METHOD

Population oh the study are all caregivers on in Undaan Health Center sub regency in Kudus Regency, Central Java Provience, Indonesia. The population of the study are caregivers and samples of this study were 229 care givers consist of 116 caregivers as intervention group and 113 caregivers as control group.

Data collection conducted in integrated health posts (Posyandu) in villages. The integrated health posts are health services provide by caregivers for children under five and mothers. The integrate health posts services are conducted one time per month. Data will collected from caregiver-child dyads who meet the criteria of this study. After getting permission from head of primary health care unit in Kudus regency, the researcher use medical record to obtain the list children under 5 years old. The researcher also contacts caregivers who take responsibility in select integrate health posts (Posyandu). Then, the caregivers gave the schedule of integrate health posts meeting (Posyandu). During data collection, the researcher introduced by caregivers. Then, the researcher approached the caregivers by self-introduction and establish a relationship. The researcher explained the information of the study using information sheet. The researcher also asked the permission from caregivers to access medical record to obtain

information about list of the children. caregivers who agreed to participate in the study and granted the permission to accessed medical record will ask to sign the informed consent. The copy of informed consent kept by caregivers and the researcher. During the data collection process, the research and team observed tiredness, issues, and problems or uncomforting of the caregivers and children. In this study, participants could withdraw at any time without any consequences.

III. RESULT AND DISCUSSION

No	Group	Pre Test			Post Test			P Velue
		N	Mean	Std. Deviation	N	Mean	Std. Deviation	
1	Intervention	116	69.62	11.908	116	77.19	7.979	.000
2	Control	113	69.85	10.398	113	72.51	8.832	.000

The quantitative findings from the T Test analysis found that post intervention educational programs to improve knowledge of nutritional status of caregiver under five-year-old in children, which means educational program of caregiver was significantly improve the knowledges of nutritional status among caregiver in children under five-year-old.

Education is one of the important elements that can affect the state of nutrition because it is related to a person's ability to accept and understand something, because the mother's level can affect diet through food choices in toddlers. The higher the education of the mother, the more likely she is to have children with good nutritional conditions and vice versa. Highly educated mothers are able to have a positive attitude towards nutrition so that in the end the quantity and quality of food consumed by the family will be better. This is in accordance with research conducted by (Rahmawati et al., 2019) in Plosoarang Kabuppaten Blitar that parents with high school education or higher will certainly find it easier to understand the information obtained than parents with junior high school education. Indonesia has a mandatory 9-year program policy for all Indonesian citizens regulated in Law Number 20 of 2003 concerning the National Education System and then increased the period of occupying education to 12 years. Compulsory education program refers to a policy that requires every citizen of school age to attend education up to a certain level. The program is an effort by the government to eliminate the practice of underage marriage in the hope of reducing stunting rates in Indonesia. (Safira et al., 2019).

Based on the characteristics of the age of toddlers obtained, most toddlers have shown an age of more than 1 year, and most of the toddlers have. According to the results of observations and measurements made, most children who experience nutritional problems (stunting) are toddlers aged < 2 years. The age of toddlers greatly affects the occurrence of stunting, especially at the age of 12-60 months. Stunting is a linear growth failure caused by malnutrition. It often begins in the fetus extending until its first two years of age. This if left without taking special attention measures, stunting can cause a permanent decrease in toddler growth in children. (Maywita, 2018) Parenting in fulfilling toddler nutrition plays an important role in correcting malnutrition in toddlers. Often parents do not follow or stop in the middle of the road in running the posyandu program in the village even though through posyandu toddlers can be checked and measured their growth periodically. (Rahmawati et al., 2019). Age is one of the factors that determine a person's nutritional needs, the higher the age the decreased one's ability to carry out activities so that it requires greater energy. In addition, the toddler age group is also very easy to experience changes in nutritional conditions, because children aged 1-3 years are passive consumers where everything they consume still depends on what is given and provided by their parents.

One of the causes of stunting is the factor of lack of economic status. Less economic status can mean that purchasing power is also low so that the ability to buy good foodstuffs is also low. The quality and quantity of food that is lacking causes children's nutritional needs not to be met, even though children need complete nutrition for growth and development. The level of education also affects the incidence of stunting in children. Parents with low education may not know what their children eat every day. There is also the problem of anorexia in children in middle-income groups, where mothers care for their own children. The child does not like home cooking, but prefers snacks. Children do not like to eat vegetables and fruits. Parents do not want to force anything because it will make children cry. Lack of vegetables and fruits can lead to mecronutrient deficiency and stunted growth (Candra, 2020).

IV. CONCLUSSION

Caregiver as family support for children and related people to increase nutritional status among children under five years. educational program of caregiver was significantly improving the knowledges of nutritional status among caregiver in children under five-year-old.

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