



Study Protocol: Relationship between Parenting Patterns and Diet with Nutritional Status of Toddlers During COVID-19 Pandemic



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Abstract

COVID-19 impacts the economy, which reduces food shortages and results in increased nutritional problems for children under five is essential. The nutritional problems of children under five are influenced by many factors, including parenting and eating patterns of children under five, which causes the prevalence of overnutrition and undernutrition to increase globally and nationally. This study aims to determine the relationship between parenting and eating patterns with the nutritional status of toddlers using the Mixed Methods research method. The research subjects used were mothers and toddlers. For quantitative analysis, as many as 86 and for qualitative analysis as many as 6 with the criteria of junior high school education and low economic level and domiciled in Yogyakarta.

Keywords

*COVID-19;
eating patterns;
nutritional status;
overnutrition;
parenting patterns;
undernutrition;*

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1 Introduction

COVID-19 is an infectious disease caused by a new type of virus, (World Health Organization, 2020), which impacts mortality, morbidity, and the economy of the people in Indonesia. (UNPD, 2020). COVID-19 impacts the economy, which affects the decline in access to food, resulting in problems with the nutritional status of children under five (Lybaws & Renyoet, 2020; Vis et al., 2015). The problem of malnutrition and excess nutrition is still a problem in Indonesia (Hanandita & Tampubolon, 2015; Beck et al., 2003). The prevalence of overweight in the world is 38 million and undernourished is 155 million bodies (Herrera Cuenca et al., 2020; WHO, 2016) and Indonesia is 17.7%, and malnutrition is 14% (Ministry of Health RI, 2020).

The impact of malnutrition on toddlers affects growth and development, namely short children, thin, low intelligence, mental retardation, inability to achieve, low productivity (Adriani & Kartika, 2013; Drover et al., 2008). The impact of excess nutrition causes cardiovascular disease, increased risk of impaired glucose, insulin resistance, type 2 diabetes, and respiratory problems, such as asthma and sleep apnea (Bhadoria et al., 2015; Fuchs et al., 1998). Nutritional status problems increase the incidence and duration of diarrhea, increase the risk of death from diarrhea, and acute respiratory infections in children under two years of age; 53% of under-five deaths are caused by nutritional problems (Fekadu et al., 2015; Heatley et al., 2016). Inadequate nutrition can cause infant morbidity and mortality and an underdeveloped brain during the first two years of life. The prevalence in the world is that more than 200 million children under five are experiencing growth retardation or wasting. (Herrera Cuenca et al., 2020). In Indonesia, 41 million children under five are overweight/obese (Ministry of Health RI, 2020). For Yogyakarta, the prevalence of under-nutrition under five is 7.62%, and over-nutrition is 3.6% (Yogyakarta City Health Office, 2019).

Risk factors for nutritional problems under five are poverty, poor diet and lack of access to nutritious food, lack of parental information about the nutritional status of toddlers (Hackett et al., 2015; Kurtieva et al., 2021). Parents have limitations in fulfilling the nutritional status of toddlers; in various countries, the choice of functional ready-to-eat food is an option in serving more practical and instant foods such as fast food and junk food, providing sweet foods (candy, ice cream, chocolate, etc.) frozen food so that toddlers can experience excess nutrition (obesity) (Ashakiran & Deepthi, 2012; Kurnia, 2018). Toddler eating behavior is influenced by mother's education which in its implementation is the preparation of toddler meals such as introducing other food, how to prepare meals, how to feed, calming children when giving complementary foods, forbidding children to eat certain foods, not getting children to eat on time (Daniels, 2019; Lim et al., 2021). Poor parenting for toddlers is one of the factors that cause problems in the nutritional status of toddlers in providing food and knowledge about types of food according to the age and needs of toddlers (Munawaroh, 2015; Robinet et al., 2001; Talks et al., 2016). Research conducted by Suharmanto et al. (2021) states that mothers give children the freedom to eat what toddlers want; some mothers force toddlers when giving food. Based on data from the Central Statistics Agency (BPS) of the Special Region of Yogyakarta (DIY), in September 2020, the poverty line in DIY increased by 0.42%. BPS DIY Province noted that poor people in DIY increased by 0.52% to 12.80%. The urban poor experienced a significant increase in September 2020, which increased by 27.1 thousand people to 323.21 thousand people (Sugeng Arianto, 2021; Mu et al., 2002; Reed et al., 2008).

The health sector approach, namely particular nutrition interventions for the poor (supplementation of vitamin A and deworming drugs), nutrition-sensitive actions through social protection, sanitation, and poverty alleviation programs, has the potential to improve nutritional problems, for example, interventions in the food system, women's empowerment, and equitable education. According to regional capabilities, to carry out a strategy to fulfill nutritional status through government policies (Shekar et al., 2016; Pieters et al., 2007). UNICEF, to deal with nutritional problems is by achieving the SDGs, namely Scaling-up Nutrition (SUN), the SUN Movement focuses on fulfilling nutrition for the first 1,000 days of life, starting from pregnancy to two-year-old children, developing an integrated approach to health services, sanitation/water clean, stimulation

and early childhood education and nutrition programs to reduce stunting to improve children's health (UNICEF, 2016).

2 Materials and Methods

The study population includes all mothers who have toddlers in the city of Yogyakarta in 2020. The data obtained are primary data on the nutritional status of children under five in the city of Yogyakarta by obtaining anthropometry of toddlers and maternal characteristics using a questionnaire. The questionnaire has been tested for validity and ethical test No 1752/KEP-UNISA/III/2021. Data analysis used SPSS version 20 for bivariate analysis using chi-square test and for multivariate using logistic regression of proportions with 95% confidence interval. For the qualitative test using analysis using the Miles and Huberman method.

The benefits is the Knowledge of problems and strategies for improving parenting and eating patterns. So that it can be used as input and consideration for the development of programs to improve the nutritional status of children under five. The ethical consideration in this research meets the requirements of Dissemination and implementation of research findings. The responsibility for this research is under Prof. dr. Djauhar Ismail, Sp.A., Ph.D. and Indriani SKM., MSc. The dissemination is for the distribution depends on the findings; several manuscripts have been prepared to cover the aspects. Manuscripts will be submitted to peer-reviewed journals. In addition, the results will be distributed to the Puskesmas, Aisyiyah University Yogyakarta, and policymakers. The implementation results to get parenting patterns, eating patterns, and nutritional status of toddlers.

3 Results and Discussions

Consent

Nutritional status is an indicator that describes health conditions influenced by intake and nutritional benefits in the body due to the use, absorption, and use of food. Several factors become nutritional problems if not handled adequately, such as parenting, diet, mother's education, mother's job. Diet plays a vital role in the growth process because food contains nutrients. Therefore, a poor diet will have an impact on growth and development. Parenting patterns commonly used in the family are democratic, authoritarian, permissive, and neglectful parenting; the parenting pattern is flexible to use in the family.

To find out the relationship between parenting and eating patterns with the nutritional status of toddlers during the COVID-19 pandemic in the city of Yogyakarta. Specific objective; 1) Knowing the characteristics of mothers of toddlers. 2) It knows the relationship between diet and nutritional status during the COVID-19 pandemic in Yogyakarta di Yogyakarta. 3). Knowing the most dominant relationship affecting the nutritional status of toddlers during the COVID-19 pandemic in the city of Yogyakarta. 4). Knowing in-depth the relationship between the most dominant factors affecting the nutrition of children under five to improve the nutritional status of children under five.

The results assessed will be parenting patterns, diet and nutritional status of toddlers. the results obtained in the form of characteristics of toddlers (Age, gender), maternal characteristics (age, maternal education, maternal work, family income), parenting patterns, diet and nutritional status of toddlers based on BB / U (More nutrition, Good Nutrition and Malnutrition) during the COVID-19 pandemic and deepening about parenting patterns and diets of toddlers during the COVID-19 pandemic.

4 Conclusion

Considering the nutritional problems of toddlers that occur continuously need to be made efforts to improve knowledge about parenting patterns and diets with nutritional status of toddlers and toddlers with malnutrition status given efforts to improve the nutritional status of toddlers by providing nutritious feeding.

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