



THE EFFECT OF HEALTH WEBINARS TO INCREASE PARENTS' KNOWLEDGE ABOUT FULFILLING CHILDREN'S NUTRITION

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ABSTRAK

The fulfillment of children's nutrition is an important aspect in supporting children's optimal growth and development. Parents play a crucial role in providing healthy and nutritious food for their children. However, parents' knowledge about child nutrition may not always be adequate, which can impact children's health and well-being. Objective: This study aims to determine the effect of webinars as a health education method on parents' knowledge about fulfilling children's nutrition at TK Hati Nurani. Methods: This study used a quantitative design with a quasi-experimental approach. The sampling technique uses total sampling. The study sample consisted of 15 parents at TK Hati Nurani. Data were collected through organizing webinars and distributing online questionnaires. Data were analyzed using descriptive statistics and t-test. Results: the results showed that although webinars as a health education method were conducted, there was no significant change in parents' knowledge about child nutrition. The results highlight the possibility of factors such as unfamiliarity with technology and limited access to or understanding of technology affecting the effectiveness of webinars in improving parental knowledge. Conclusion: There is a need for in-depth evaluation of the design and implementation of webinars as a health education method. Nonetheless, the importance of health education as an effort to increase parents' knowledge and awareness about fulfilling children's nutrition is still emphasized.

Keywords: nutritional status; work climate; work fatigue levels

INTRODUCTION

The level of nutrition in children is a major concern in ensuring optimal growth and development. The issue of child nutrition is often complex, especially in the modern era where diets and lifestyles are often unhealthy (Mitra et al., 2020). Many children experience deficiencies in essential nutrients due to unbalanced food consumption, low access to nutritious foods, or diets influenced by economic, social and cultural factors (Doustmohammadian et al., 2020). In addition, the increasing prevalence of processed and fast foods also contributes to this problem, as they often lack essential nutrients and are overloaded with fat, sugar and salt (Shrestha et al., 2020). The long-term implications of child malnutrition include reduced physical growth and optimal cognitive development, increased risk of chronic diseases such as obesity, diabetes and cardiovascular disease in adulthood, and potentially significant impacts on overall public health (Moore et al., 2020).

Child nutrition is crucial in ensuring optimal growth, development and health in the early stages of life. Children who receive adequate nutrition have the potential to achieve optimal physical, cognitive and social development (Hordijk et al., 2020). Adequate nutrition is not only necessary to support healthy body growth, but also plays an important role in the formation of the immune system, brain function, and hormonal balance (Kassie & Workie, 2020). In particular, childhood is a critical period in the formation of healthy eating habits that will impact long-term health. Nutritional deficiencies in

childhood can result in lasting impacts, including reduced levels of intellectual intelligence, increased risk of chronic diseases such as obesity, diabetes and cardiovascular disease in adulthood, and susceptibility to permanent growth and developmental disorders (Hadush et al., 2021).

Parents play an important role in the context of child nutrition. Parents are the individuals responsible for providing nutritious food for their children (Aubert et al., 2021). Parental involvement in the feeding process not only includes physical aspects, such as selecting and serving food, but also includes psychological and social dimensions, such as forming healthy eating habits and introducing children to a variety of nutritious foods (Chauhan et al., 2022). Research has shown that children's diets often reflect family eating habits, so healthy eating practices exhibited by parents can shape children's future food preferences. In addition, positive interactions between parents and children during mealtimes can also influence children's perception of food, promote healthy eating patterns, and strengthen the emotional bond between parents and children (Aung et al., 2021).

Parents' lack of knowledge about child nutrition is a serious challenge to ensuring adequate nutrition for children. While an understanding of the importance of nutrition may be common, specific knowledge regarding the types of food needed, appropriate portions, and nutritional needs of children is often lacking in depth by parents (Schalkwijk et al., 2015). Factors contributing to this lack of knowledge can vary, including low levels of education or access to accurate nutrition information. In addition, the adoption of unhealthy diets in modern society, influenced by easy access to fast or processed foods, can also complicate parents' understanding of child nutrition (Chauhan et al., 2022). The impact of this lack of knowledge can have a direct impact on the quality of food provided to children, which in turn can lead to the risk of nutritional deficiencies and health problems associated with poor nutrition (Sousa et al., 2021).

The urgency of using webinars as a tool to improve parents' knowledge on child nutrition has been increasingly recognized in the context of modern health education. Webinars offer an effective platform to deliver current and relevant nutrition information to parents without being limited by geographical or time constraints (Selviyanti et al., 2019). In an era where information technology is increasingly pervasive in everyday life, webinars offer easy and flexible access for busy parents to gain knowledge on healthy eating patterns and nutritional needs of their children (Paula, 2021). In addition, webinars also allow for two-way interaction between speakers and participants, facilitating in-depth discussions and Q&A, which can increase parents' understanding and engagement on the topic of child nutrition (Sari et al., 2022). Through the utilization of this technology, nutrition information can be delivered in a more interesting and easy-to-understand manner, allowing parents to make better decisions in choosing and providing nutritious food for their children. The purpose of this study was to determine the effect of webinars as health education to improve parents' knowledge of children's nutritional fulfillment.

METHOD

This study used a quantitative approach with a quasi-experimental design. Quasi-experimentation is a research method that is similar to experimentation, but does not meet all the criteria of strict experimental control. The purpose of a quasi-experimental design is to evaluate the effect of an intervention without randomization or perfect control of certain variables. In this study, the purpose of the quasi-experimental design was to evaluate the effect of webinars as health education on parents' knowledge about fulfilling children's nutrition.

The study sample consisted of 15 parents at TK Hati Nurani. Inclusion criteria for participation included parents or guardians with children currently attending the kindergarten. Exclusion criteria

included individuals who did not have children at the kindergarten. The location of the study was TK Hati Nurani. Data were collected by distributing questionnaires online through Google Form. This knowledge questionnaire has a validity test with a range of 0.450-0.781 and a reliability test of 0.780 so it is declared valid and reliable. The questionnaire was designed to collect information on parents' knowledge of the definition of child nutrition, factors that influence child nutrition, the impact of child nutrition, and efforts to fulfill child nutrition. Respondents were asked to answer the questions in the questionnaire and were given a maximum score of 100 based on the answers given.

This study takes into account the principles of research ethics, including autonomy (ensuring voluntary participation and individual rights are considered), justice (ensuring fair distribution of benefits and risks), beneficence and maleficence (ensuring maximum benefits and minimal risks to participants), and confidentiality (ensuring that participants' data is protected and not disclosed to other parties without permission). Data will be analyzed using descriptive statistics, such as mean, median, and mode, to describe sample characteristics and study variables. In addition, univariate analysis and bivariate analysis with t-test will be used to evaluate the effect of webinars as health education on parents' knowledge about fulfilling children's nutrition. This analysis aims to determine if there is a significant difference in knowledge before and after the health education intervention.

RESULTH AND DISCUSSION

Based on the pre-test and post-test results obtained, there were 15 participants. We found that:

Table 1.
Distribution of Participants' Scores

Variable	Mean	Standard Deviation	Min-Max
Knowledge			
Pre-test	76.00	11,832	50-90
Post-test	74.00	14,541	40-90

In the participant score category (table 1), the average pre-test score was 76 with a standard deviation 11,832 and the average post-test score is 74 with standard deviation 14,541. The minimum knowledge score achieved by participants during the pre-test was 50 and 40 during the post-test. Meanwhile, the maximum knowledge score achieved by participants during the pre-test and post-test was 90.

Table 2.
Description of Participants' Increase in Knowledge

Knowledge	Pre-test		Post-test		p-value
	f	%	f	%	
Good	4	27	3	20	0.677
Enough	9	60	9	60	
Not enough	2	13	3	20	
Total	15	100	15	100	

In the knowledge value category (table 2), it was found that 4 people had a good level of knowledge (27%) during the pre-test and 3 people (20%) had good knowledge during the post-test. Statistically, there was no significant difference (p value >0.05) between the pre-test and post-test after giving the material. So, it can also be concluded that there was no influence on increasing participants' knowledge.

The results of the study showed that there was no significant change in participants' knowledge regarding fulfilling children's nutrition. This is a sign that the webinar being held may not achieve the

expected level of effectiveness in conveying crucial information to participants (Sari et al., 2022). Factors that may influence the failure of its effectiveness can come from various aspects, such as lack of participant involvement, inadequate delivery of material, or even a mismatch between the intervention method and the actual needs of the participants (Ayed, 2021; K. Ghazy et al., 2021). Unfamiliarity with using technology can be a significant factor influencing the effectiveness of a webinar in increasing participants' knowledge. The results of the study highlighted that, although an intervention in the form of a webinar had been held, there was no significant change in participants' knowledge (Maslakah & Setiyaningrum, 2017). One possible reason for this lack of success is participants' unfamiliarity with using technology, which in turn affected their participation and engagement in the webinar (Kuriyan et al., 2014; Sari et al., 2022). Discomfort or confusion in operating the webinar platform or related technology tools may prevent participants from obtaining full benefit from the intervention. For example, participants may experience difficulty in interacting with the material presented or even in following the entire webinar session due to technical problems that may arise (Hu et al., 2021; Karahan et al., 2020; Muniroh et al., 2022).

It is important to pay attention to participants' level of readiness and familiarity with the technology prior to conducting the webinar, as well as providing additional support and guidance as needed to ensure maximum participation (Le et al., 2020). In addition, a thorough evaluation of webinar design and implementation is also needed to identify and overcome technological barriers that may prevent participants from obtaining the expected benefits from health education interventions (Kamilah et al., 2023; Nurbaya et al., 2022). Thus, paying attention to participants' comfort levels and technological expertise can be a key factor in increasing the effectiveness of webinars and optimizing opportunities to increase participants' knowledge (Barnes et al., 2020; Viggiano et al., 2015). The results of the research showed that there was an increase in knowledge about fulfilling children's nutrition among parents after going through the education process, although it was not significant (Kirkpatrick et al., 2012; Sousa et al., 2021). These results underline the important role of education in increasing parents' understanding and awareness of the importance of fulfilling children's nutrition (Kim et al., 2018; Nickerson et al., 2018). This education opens parents' insight into key concepts in providing a balanced nutritional intake for their children, including an understanding of the definition of balanced nutrition, factors that influence nutritional intake, the impacts that arise due to inadequate nutrition, and efforts made can be done to ensure children get adequate nutrition (Aubert et al., 2021; Uzşen & Didar Başbakkal, 2019). Through this increased knowledge, parents are better able to make informed decisions regarding healthy eating and lifestyle patterns for their children (Brazendale et al., 2017; Uzşen & Didar Başbakkal, 2019).

Increasing knowledge about children's nutritional needs can have a significant impact on children's health and development. With a better understanding of the importance of a balanced nutritional intake, parents can be more effective in creating appropriate diets for their children (Das & Gulshan, 2017; Timpl & Knox, 2017). This can reduce the risk of health problems related to nutrition, such as nutritional deficiencies or excesses, as well as long-term health problems such as obesity, diabetes and heart disease (Iyassu et al., 2023; Kinshella et al., 2022; Zheng et al., 2023). Apart from that, adequate nutrition can also increase a child's body's resistance to disease and infection, as well as support optimal physical, cognitive and emotional development. Thus, increasing knowledge about fulfilling children's nutrition not only affects health directly, but also has a broad impact on the quality of life and future of children (Fikrinnisa et al., 2023; Gillespie et al., 2015). Therefore, it is important to continue to encourage education and awareness about balanced nutrition, both among parents and society as a whole, as part of efforts to create a healthier and well-developed generation.

CONCLUSION

The conclusion from the results of this research shows that webinars as a method of health education have not been able to have a significant impact on increasing parents' knowledge about fulfilling children's nutrition in the TK Hati Nurani. Based on the research results, the author found that there was no significant influence between health webinars on parents' knowledge about fulfilling children's nutrition. This is shown from the p value of the t-test, there are 0.677. Although efforts have been made to increase awareness of the importance of balanced nutrition for children, these findings highlight the need for in-depth evaluation of webinar design and implementation in a broader context. Factors such as unfamiliarity with using technology, limited access or understanding of technology, and lack of interactivity in webinar sessions can be obstacles that need to be overcome in efforts to increase the effectiveness of health education interventions in the future. The implication of this research is that there is a basis for health workers to develop programs to increase parents' knowledge about children's nutritional needs. Educational programs using webinars can be considered if participants are ready to use technology. A recommendation for further research is the need to analyze the factors that influence parents' knowledge regarding children's nutritional needs.

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