

## The Relationship between Parental Knowledge and Children Nutritional Status

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### Abstract

The prevalence rate of Low Birth Weight (LBW) in Indonesia in 2020 reached 11.69%. This is due to several factors, namely, socio-economic, cultural, and one of them is parental knowledge. Parents' nutritional knowledge, attitudes, and practices play an important role in their children's nutritional behavior and growth. This study aims to assess the influence of parents' nutrition knowledge, attitudes and practices on children's eating habits and growth. Nutrition is a complex issue for children. In addition, parents' education level and socioeconomic status significantly influence children's eating habits. This study emphasizes the importance of nutrition education and the influence of family environment on children's diet. Education is an effort to change a person's attitude and behavior in order to reach maturity through the teaching and learning process. A person's level of education is positively correlated with his or her speed in receiving information. In the context of child development, especially related to nutrition, parental education, especially mothers, plays a very important role. Maternal education is a key factor in directing the process of child development, especially in terms of knowledge about the relationship between food, health, and the nutritional needs of the family, especially children. There is an association between the nutritional status of underweight infants and low-income families with mothers who have limited understanding of nutrition. In contrast, infants with normal nutritional status generally have mothers who have sufficient understanding of nutrition. The role of maternal knowledge is very significant in determining the nutritional status of children. If the mother has a good understanding of nutrition, it is likely that the child's nutritional status is also good. Therefore, the level of knowledge possessed by a mother can create the knowledge needed by the child, especially regarding aspects of food intake which is an important key in growth and development. The purpose of this study is to provide an in-depth description and analysis of parents' understanding of the fulfillment of balanced nutrition.

### Article History:

### Keywords:

*Children Nutritional Status, Parental Knowledge*

### 1. Introduction

Knowledge in parents is very important for mothers and children, because the first 1000 days of life begin at the beginning of pregnancy. At that time parents' knowledge related to nutritional needs is very important for the growth of the baby in the womb until later childbirth. If parents do not know how important the first 1000 days of life are, and do not pay attention to the food they consume, it will have an impact on the child's condition, both with his birth condition and cognitive abilities. Mothers

with unmet nutritional conditions will give birth to children with low birth weight, and increase the risk of stunting. Children with low birth weight will also experience cognitive impairment, during their active age the child is not very active and it is difficult to stimulate them, in this case the child will be slow in development.

Children who are well stimulated can follow the development in accordance with their age even faster, stimulation in children can be through early education, namely, by stimulating the five senses (sight, hearing, taste, touch, and smell). From the physical aspect, children experience very significant development, starting from the growth of brain cells and other organs to gross motor development, such as walking, running, jumping, and climbing. Another very important physical development is fine motor, which is the ability to coordinate hand and eye movements, for example grasping, reaching, writing, and others.

A mother's knowledge of optimal nutritional conditions for her child has direct consequences on her understanding of how to feed her toddler. A good understanding of nutrition allows one to plan an appropriate diet. With increased knowledge, a person tends to be more considerate of the type and amount of food they obtain for consumption. Maternal awareness and knowledge of the importance of nutritional aspects in a toddler's diet are the main factors that influence the level of nutritional status of toddlers.

Nutritional status is an important component of health status. Nutritional status is a condition caused by an imbalance between the nutrients provided by food and the nutrients required by the body. The main factor is a condition caused by unhealthy food processing, and the second is food that does not meet the body's nutritional needs due to incorrect use of nutrients.

The eating habits of children and the whole family can be improved with better parental knowledge about nutrition and nutrition. Parents who lack knowledge about nutrition have a significant impact on their children's eating habits and food preferences, which play an important role in children's development. Therefore, parents should know how to provide balanced nutrition to their children. There is a significant correlation between the nutritional status of primary school children and mothers' knowledge of a balanced diet.

## **2. Research Method**

The research method used in the research that the researcher carried out was studying literature. Literature searches were carried out online in electronic databases such as Google Scholar. Key words used in the literature search included "nutritional status", "parents", "mother", "relationship", and other variations in both Indonesian and English.

The range of publication years for the included articles is limited to the last 11 years between 2012 and 2023 in order to obtain the latest data regarding this reflection topic in Indonesia. The selection process is carried out in stages starting from reading the title, abstract, to the entire content of the article. If the content of the article does not match the inclusion criteria or is not related to the research topic, then the article is rejected.

After getting that article meets the criteria, is carried out preparing the outline of the article with Introduction structure, content (discussion), and closing (conclusion).

## **3. Result**

Based on a literature review of 15 journals, it can be concluded that nutrition education significantly improved mothers' knowledge, attitudes and skills. Mothers who received nutrition education reported positive changes in their child's nutritional status, including an average birth weight increase of 0.257 kg compared to the control group.

Methods used to educate parents included lectures, group discussions, demonstrations, and media such as booklets, brochures, digital apps and posters. An example of a successful intervention is education based on Maternal and Child Health (MCH) books and mobile applications.

Children of mothers who received nutrition education interventions showed increased weight gain and decreased risk of stunting and wasting. There was a significant association between mothers' education level and place of residence with their level of knowledge about child nutrition. (Peters et al., 2013)(Salama et al., 2014)

#### 4. Discussion

The variables that influence nutritional conditions can be analyzed in two categories, namely internal factors and external factors. One of the many external factors that have the potential to affect nutritional status is income level. Low income can result in limited access to adequate food sources, which may be due to unemployment or difficulty in finding work. Apart from income, other external factors that play a role include education level, type of employment and cultural factors. Meanwhile, internal factors involve age, physical condition and the presence of infectious diseases. The importance of diet is reflected in its relationship with nutritional status, especially in the under-five category, which can play a central role in their growth and development process. The quality of nutrition in food consumption is directly related to children's health and intelligence. A child who under nourished are more susceptible to various diseases and infections. Inadequate diet in toddlers can lead to growth disorders such as thinness, height that is not age-appropriate, and even lead to malnutrition. In general, the variables that influence the formulation of diet involve economic dimensions, religious values, education levels, socio-cultural aspects and the context of the home area. (Sulfiyani et al., 2023)

There is a relationship between energy and protein intake and nutritional status in Manado city, which can be seen from the results of BB/U and BB/TB in children. Many children who get adequate energy intake tend to have better nutritional status. A person is not able to undergo work activities at a level exceeding the intake of nutrients obtained from food consumption, unless they utilize or borrow spare energy sources contained in the body. However, this habit can have serious health implications, particularly in the form of malnutrition. (Angela et al., 2017)

Knowledge of parents, especially mothers, regarding nutritional needs has a very important role in supporting the growth of babies from the womb until after birth. The first 1000 days of life, which starts from conception until the child is two years old, is a critical period that determines the child's future health and development. At this time, adequate and balanced nutrition is very necessary to ensure optimal growth and development, both physically and cognitively. If parents do not fulfill the importance of nutritional intake during this period, the child is at risk of experiencing various health problems, such as Low Birth Weight (LBW), stunting, and impaired cognitive development.

The prevalence rate of Low Birth Weight (LBW) in Indonesia in 2020 reached 11.69%, which reflects health and nutrition problems that are still significant. This figure is influenced by various factors, including socio-economic factors, culture and parental knowledge. Socio-economic factors, such as low family income, often result in limited access to nutritious food, health services, and education. Families with low socio-economic status also tend to have limited understanding of the importance of adequate nutritional intake, both during pregnancy and for the child's growth after birth. In addition, cultural factors also play an important role in family eating patterns. Some cultures may have eating habits that do not always include a balanced nutritional intake, or consider certain types of food to be the main choice even though they are less nutritious.

Children with poor nutritional status tend to have low immune system, are difficult to stimulate, and are slow in their physical and mental development. On the other hand, parents who have good knowledge about nutrition will be better able to provide nutritious food that supports children's growth. This knowledge allows them to choose types of food that are rich in nutrients, such as protein, vitamins and minerals, and avoid low-nutrient foods that can have a negative impact on children's health. Therefore, increasing the knowledge of parents, especially mothers, through nutritional education and counseling programs is very necessary to support the achievement of optimal nutritional status for



children and prevent various risks of health problems that can occur due to a lack of understanding of the importance of nutrition. (Fazrin et al., 2022)

## **5. Conclusion**

The conclusion of this study is that nutrition education is essential to improve mothers' knowledge, understanding and skills about child nutrition. The results show that maternal nutrition education can significantly improve children's nutritional status, including increased birth weight and reduced risk of stunting and wasting. There was a significant relationship between mothers' education level and their knowledge of child nutrition, indicating better knowledge of what children need.

In addition, social, economic and cultural components also influence the nutritional status of children. Therefore, it is important to implement comprehensive and sustainable nutrition education programs and encourage the community to understand the importance of good nutrition for children's growth and development. Thus, efforts to reduce the prevalence of nutritional problems such as low birth weight (LBW) can be more effective and sustainable.



## REFERENCES

- Adriana, N. G., & Zirmansyah, Z. (2021). Pengaruh Pengetahuan Parenting Terhadap Keterlibatan Orangtua Di Lembaga Paud. *Jurnal Anak Usia Dini Holistik Integratif (AUDHI)*, 1(1), 40. <https://doi.org/10.36722/jaudhi.v1i1.565>
- Angela, I. I., Punuh, M. I., Malonda, N. S. H., Kesehatan, F., Universitas, M., & Ratulangi, S. (2017). Hubungan Antara Asupan Energi Dan Protein Dengan Status Gizi Anak Balita Di Wilayah Kerja Puskesmas Kombos Kota Manado. *Kesmas*, 6(2), 10/10.
- Aziz, A. S. P. C., Ermaya, Y. S., & Sari, N. M. (2019). Parents' Knowledge and Children's Toilet Training Practices: Study in Kindergartens in Jatinangor. *Althea Medical Journal*, 6(2), 86–90. <https://doi.org/10.15850/amj.v6n2.1659>
- Bakar, T. H. S. T. A., Ibrahim, S. Z., Zakaria, S., Nor, M. M., Zain, N. M., Azmin, S. N. H. M., Liew, J. Y., Abdullah, F. A., & Rosli, F. (2024). Factors affecting parental awareness of the nutritional intake to their children's growth. *IOP Conference Series: Earth and Environmental Science*, 1397(1). <https://doi.org/10.1088/1755-1315/1397/1/012024>
- Br Perangin-angin, Y. E. Y., S.Psi., M.Psi., P.Hd., Psikolog, N. M. A., & S.Pd., M.Pd, M. V. A. P. (2023). Parents' Understanding of Fulfilling Balanced Nutrition in Preparing Lunch Boxes for Group B Children. *Jurnal Pendidikan Anak Usia Dini Undiksha*, 11(1), 97–105. <https://doi.org/10.23887/paud.v11i1.59988>
- Fadare, O., Id, M. A., Mavrotas, G., Akerele, D., & Ogunniyi, A. (2019). *Mother 's nutrition-related knowledge and child nutrition outcomes : Empirical evidence from Nigeria*. 1–17.
- Fauziah Ikhsanina Shiyam, Bau Kanang, & Nur Al-Faida. (2024). Relationship Between Mother's Knowledge Level In Utilizing The Maternal and Child Health Book With The Nutritional Status Of Toddlers. *International Journal of Public Health*, 1(3), 79–89. <https://doi.org/10.62951/ijph.v1i3.72>
- Fazrin, I., Daha, K. K., & Musa, K. (2022). *The Role of Parents in Preparing Balanced Menu with Children 's Nutritional Status*. 5(2), 229–238.
- Prasetyo, Y. B., Permatasari, P., & Susanti, H. D. (2023). The effect of mothers' nutritional education and knowledge on children's nutritional status: a systematic review. *International Journal of Child Care and Education Policy*, 17(1). <https://doi.org/10.1186/s40723-023-00114-7>
- Peters, J., Dollman, J., Petkov, J., & Parletta, N. (2013). Associations between parenting styles and nutrition knowledge and 2-5-year-old children's fruit, vegetable and non-core food consumption. *Public Health Nutrition*, 16(11), 1979–1987. <https://doi.org/10.1017/S1368980012004648>
- Putri, N. A. S., Adiwinoto, R. P., Arundani, P., Nugraheni, P. A., & Adnyana, I. M. D. M. (2024). The Relationship Between Feeding Patterns and Maternal Knowledge about Nutrition with the Incidence of Stunting in Children Age 0-5 Years in the Working Area of the Gedongan Health Center, Mojokerto City. *AgriHealth: Journal of Agri-Food, Nutrition and Public Health*, 5(1), 21. <https://doi.org/10.20961/agrihealth.v5i1.83808>
- Salama, A., Elhawary, D., & El-Nmer, F. (2014). Nutritional knowledge, attitude, and practice of parents and its impact on growth of their children. *Menoufia Medical Journal*, 27(3), 612. <https://doi.org/10.4103/1110-2098.145529>
- Sulfiyani, S., Ruwiah, R., & Fithria, F. (2023). Hubungan Pola Makan, Pendapatan Keluarga, Jumlah Anggota Keluarga Dengan Status Gizi Anak Balita Di Wilayah Kerja Puskesmas Parigi Kabupaten



Muna Tahun 2021. *Jurnal Gizi Dan Kesehatan Indonesia*, 3(4), 138–145. <https://doi.org/10.37887/jgki.v3i4.30139>

Tarabashkina, L., Quester, P., & Crouch, R. (2016). Exploring the moderating effect of children's nutritional knowledge on the relationship between product evaluations and food choice. *Social Science and Medicine*, 149, 145–152. <https://doi.org/10.1016/j.socscimed.2015.11.046>

Yalçın, S. S., Serdaroğlu, E., & İnce, O. T. (2016). Parental perception and child's nutritional status. *Turkish Journal of Pediatrics*, 58(1), 63–68. <https://doi.org/10.24953/turkjped.2016.01.009>

