

RESEARCH STUDY

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Factors Associated with Picky Eating in Preschool Children

Faktor yang Berhubungan dengan Picky Eating pada Anak Usia Prasekolah

Fitria Wahyu Ariyanti^{1*}, Atikah Fatmawati¹, Ike Prafita Sari¹¹Sekolah Tinggi Ilmu Kesehatan Majapahit, Mojokerto, Indonesia**ARTICLE INFO**

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***Correspondent:**

Fitria Wahyu Ariyanti

fitria.hariyadi@gmail.comDOI:
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ABSTRACT

Background: Picky eating is an eating disorder in children that harms the child or caregivers. Picky eating can cause growth disorders and affect children's nutritional status. Various factors influence picky eating: parents' eating behavior, children's appetite, history of exclusive breastfeeding, MP-ASI, diseases in children, the interaction between parents and children, caregivers, and psychological factors.

Objective: This study aimed to analyze the factors associated with picky eating in preschool-aged children in Dusun Terate, Karangsentul Village, Pasuruan.

Method: This study uses a correlational research design. The population in this study was 72 parents and was taken by proportionate stratified random sampling of 51 samples. The instruments used were parenting style questionnaires, parental eating behavior questionnaires, and picky eating questionnaires. The statistical analysis used was Spearman's Rank test and Chi-Square.

Results: The results showed no relationship between a history of exclusive breastfeeding ($p=0.590$) and picky eating in preschool-aged children. There is a relationship between parenting style ($p<0.001$) and parental eating behavior ($p=0.006$) with picky eating in preschool-aged children.

Conclusion: A history of exclusive breastfeeding is not the only factor that causes picky eating in children. Democratic parenting and good parenting behavior do not cause picky eating in children. So it is expected that parents need to apply democratic parenting and apply good eating behavior so that children do not experience picky eating.

INTRODUCTION

Parents' problems surrounding feeding children cause many questions, especially during preschool. Behavior that shows a dislike for certain foods and is picky about food is a problem that is often experienced by preschool-age children¹. Preschool age is a period of character formation in children who are picky about food which has been shown to continue into adulthood². At this age, children already have the character of being active consumers who can choose the food they like³. In preschool children, more than 20% are found to have difficulty eating. This condition is because children can designate the food they like and only want to eat it themselves⁴. According to Lestari et al. (2019), picky eating is also an eating disorder in children that has detrimental effects on the child himself or caregivers, and picky eating should also be considered both by parents and health workers⁵.

According to Hananto (2016), the impact that occurred on picky eating can experience physical growth, which is characterized by inhibiting the growth of IQ (intelligence quotient), which can result in a child's intelligence and under normal weight⁶. Picky eating extreme cases, if not treated immediately, can harm health, such as failure to thrive, chronic disease occurs, and can cause death. Picky eating can be influenced by parental eating behavior, the interaction between

mother and child, parenting style, exclusive breastfeeding, complementary foods, and the child's psychological and physical condition⁷.

Karaki (2016) also said that parental behavior is significant for the formation of children's character and behavior because children often imitate their parents' habits and behavior, including their parents' eating behavior. The adults around them also influence children's behavior. Parents' eating behavior is a behavior that can be seen and observed in response to the stimulation of food, fulfilling food needs, and parents' views on food⁸.

Efforts to overcome eating disorders can be made with pharmacological and non-pharmacological methods. Efforts with pharmacological methods, namely by administering multivitamins and micronutrients. Whereas with non-pharmacology, namely by giving herbal drinks/ herbal medicines, massage, acupressure, and acupuncture⁹. Efforts to overcome eating difficulties consist of inviting children to eat together, loving children, and praising children¹⁰. Another way parents can overcome difficulty eating is to regulate eating, such as giving a variety of foods according to the child's tastes. Create a comfortable atmosphere for children and use cute cutlery that children like and according to their conditions¹¹.

Problems with picky eating In this case, parents must play an important role, for example, by limiting children to eating snacks that make children complete before eating the main meal, providing interesting foods so that children do not get bored quickly with one type of food, introducing and teaching children to eat different types of food. Furthermore, provide nutritious types of food to children following the nutritional needs of children. Parents should pay more attention to the type of food children consume to prevent nutritional factors from occurring in children¹². Based on the phenomenon above, the researcher is interested in conducting research entitled "Factors Associated with Picky Eating in Preschool-aged Children in Dusun Terate, Desa Karangsentul, Pasuruan."

METHODS

This research method uses a correlational research design. The population in this study was 72 respondents, and samples were taken using proportionate stratified random sampling techniques for as many as 51 respondents. The instruments used were a history questionnaire of exclusive breastfeeding, parenting style, parental eating behavior questionnaire, and a questionnaire about picky eating. How to collect data by distributing questionnaires door to their respective homes.

The parenting style questionnaire was adopted from Damanik's research (2018) which tested validity and reliability. The parenting style questionnaire comprised 21 statements divided into 3: 7 statements each for authoritarian, democratic, and permissive parenting styles. Categorization is done based on parenting tendencies carried out by parents. The value of authoritarian, democratic, and permissive parenting styles for each respondent was compared. The highest score among the three parenting styles shows the tendency of parenting styles to be carried out by parents toward children

Eating behavior instrument using the Adults Eating Behaviour Questionnaire (AEBQ) put forward by Hunot, Fildes, and Croker in¹³. The AEBQ consists of 10

statement items plus 5 statement items developed by Maharani (2019) in his research. This instrument has previously been tested for validity and reliability. The final assessment of the questionnaire is eating behavior which is not good if the score is 15-23, and eating behavior is good if the score is 24-30¹³.

Instrument picky eating using a Child Eating Behaviour Questionnaire (CEBQ) questionnaire presented by Wardle, Guthrie, Sanderson, and Rapoport in Maharani (2019). The CEBQ questionnaire has 21 statement items which are divided into six categories. This instrument has previously been tested for validity and reliability. The final assessment of this questionnaire is that a score of 21-64 is picky eating, and a Score of 65-105 is not picky eating¹³.

How to collect data by distributing questionnaires door to their respective homes. Data analysis used the chi-square test to find the relationship between the history of exclusive breastfeeding and parenting style with picky eating. In contrast, the Spearman rank test determines the relationship between parental eating behavior and picky eating. This research proposal underwent an ethical test at the STIKES Majapahit Health Research Ethics Commission with 012/KEPK-SM/2022.

RESULTS AND DISCUSSION

Relationship between the History of Exclusive Breastfeeding and Picky Eating in Preschool-aged Children in Dusun Terate, Desa Karangsentul, Pasuruan

The results (Table 1) shows that almost all of the respondents, namely 43 (84.3%), had a history of exclusive breastfeeding, and most of them, namely 26 respondents (51%), did not experience picky eating. *Chi-Square* test results obtained a *p-value* of 0.590 > α 0.05, which means there is no relationship between the history of exclusive breastfeeding and picky eating in preschool-age children in Dusun Terate, Desa Karangsentul, Pasuruan.

Table 1. Cross tabulation between the history of exclusive breastfeeding and Picky Eating in Preschool-aged Children in Dusun Terate, Desa Karangsentul, Pasuruan

History of Exclusive Breastfeeding	Picky Eating		Chi-Square Test
	Yes	No	
Yes	17 (33.33%)	26 (51%)	0.590
No	4 (7.85%)	4 (7.85%)	

According to Jones (2015), it is known that babies born will like sweet tastes and do not like bitter tastes. Liking sweet tastes will encourage the consumption of good energy sources, one of which is breast milk while disliking bitter tastes can protect oneself from poisoning by alkaloids in plants. However, this tendency can change according to experience. Early exposure to various flavors during breastfeeding can reduce the risk of picky eating, and exclusive breastfeeding was reported to be associated with the incidence of picky eating, which is lower than formula-fed babies¹⁴.

The results of this study are not in line with Jones' theory (2015), which states that exclusive breastfeeding is reported to be associated with incidents of picky eating lower than formula-fed babies. Based on the study's results, it was found that half of the children who did not get exclusive breastfeeding experienced picky eating, and half did not. Researchers argue that other factors influence the history of exclusive breastfeeding, including parenting patterns and parental eating behavior. Even so, parents should still be advised to provide exclusive breastfeeding so that the nutritional needs of infants aged 0-6 months are met.

Relationship between Parenting Style and Picky Eating in Preschool-aged Children in Dusun Terate, Desa Karangsentul, Pasuruan

The results (Table 2) shows that the children who received democratic parenting were the most who did not picky about eating most of the 26 respondents (51.0%). This result shows that parents who apply democratic parenting always tend to remind children to eat on time, provide understanding to children to eat

healthy food and the importance of a variety of foods, and remind children not to snack carelessly often. Meanwhile, children who get permissive parenting experience more picky eating, a small portion of 11 respondents (21.6%). In this permissive parenting style, parents tend to obey all the food children want, whether healthy or unhealthy. Parents also tend not to reprimand or warn children if children often snack carelessly and give freedom to children to eat at any time; this can lead to irregular eating patterns.

Table 2. Cross tabulation between Parenting Style and Picky Eating in Preschool-aged Children in Dusun Terate, Desa Karangsentul, Pasuruan

Parenting Style	Picky Eating		Chi-Square Test
	Yes	No	
Authoritarian Parenting	3 (5.9%)	3 (5.9%)	<0.001
Democratic Parenting	7 (13.7%)	26 (51.0%)	
Permissive Parenting	11 (21.6%)	1 (2.0%)	

According to Karaki (2016), parenting style plays an essential role in shaping children's behavior and character because children always imitate the behavior and habits of their parents. Therefore, parenting style also affects the growth and development of children, especially eating habits. Unfavorable parenting styles can result in children experiencing picky eating¹⁵. One aspect of parenting is feeding. Feeding is a form of fostering eating habits and fostering good and correct eating behavior following each culture¹⁶.

This research aligns with Damanik's (2018) research, based on a chi-square test with a *p-value* of 0.006. Moreover, the research also says that children who get permissive parenting experience picky eating most of the ten respondents (71.4%) because parents tend to provide lax supervision¹⁷. Children are allowed to do something without sufficient supervision. Parents do

not reprimand or warn children when children are in danger, and very little guidance is given by parents to children.

Relationship between Parents' Eating Behavior and Picky Eating in Preschool-aged Children in Dusun Terate, Desa Karangsentul, Pasuruan

The results (Table 3) shows that most of the 37 (72.5%) children with eating behavior experienced good parents' picky eating, a small portion of 11 respondents (21.6%) and no picky eating mostly 26 respondents (51.0%). Researchers argue that parents have an essential role as a model and provide an excellent example for children, especially regarding eating behavior.

Table 3. Cross-tabulation between parents' eating behavior and picky eating in preschool-aged children in Dusun Terate, Desa Karangsentul, Pasuruan

Parent's Eating Behavior	Picky Eating		Spearman Rank Test
	Yes	No	
Not Good	10 (19.6%)	4 (7.8%)	0.006
Well	11 (21.6%)	26 (51.0%)	

Karaki (2016) said that parental behavior is essential for the forming children's character and behavior because children often imitate their parents' habits and behavior, including Parents' eating behavior is a behavior that can be seen and observed in response to the stimulation of food, fulfilling food needs, and parents' views on food⁸. Parents and families also have a significant influence on eating behavior in children. Parents' eating behavior has an impact on nutritional intake in preschool children¹⁶. Anggraini (2014) also said that the eating behavior of parents¹⁸ influences the behavior of picky eating in children.

Good eating behavior parents have high knowledge about ways and creativity in serving healthy and nutritious food for children and introducing new food menus. The lower the knowledge of parents in providing attractive food for children, the higher the incidence of picky eating in children. The results of this study are

under Maharani (2019), where there is a relationship between parental eating behavior and incidents of picky eating in preschool children (3-5 years) in Kindergarten Work Area UPTD Leyangan Public Health Center, Semarang Regency¹³.

This study's strength is that it uses standard measuring instruments and modifications that have been tested for validity and reliability, so there is no need to doubt its validity. Researchers do not need high data collection costs because measuring instruments are affordable. The number of respondents also met the requirements for correlation design research. The weakness of this study is that not all factors related to the incidence of picky eating were studied due to the limitations of the researchers.

CONCLUSIONS

Based on the study results, a history of exclusive breastfeeding is not a factor that causes children to be picky about food. Democratic parenting does not cause children to be fussy or picky about food, while permissive parenting makes children picky about food. Good parental eating behavior also causes children not to be picky about food. So it is expected that parents need to apply democratic parenting and apply good eating behavior so that children do not experience picky eating.

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REFERENCES

1. Utami, F. B. Picky eater Pada Anak Kota : Studi Kasus Anak Usia 3-4 Tahun. *J. Sosioreligi* **14**, 79–86 (2016).
2. Sirasa, F., Mitchell, L., Silva, R. & Harris, N. Factors Influencing the Food Choices of Urban Sri Lankan Preschool Children: Focus Groups with Parents and Caregivers. *Appetite* **150**, (2020).
3. Nyanyi, M. F. A., Wahyuni, T. D., & Swaidatul, M. A. Pola Asuh Ibu yang Mempengaruhi Perilaku Sulit Makan pada Anak Prasekolah (4-6 tahun). *Ilm. Keperawatan* **4**, 1–10 (2019).
4. Saidah, H., Dewi, R. K., Saidah, H., Sciences, H., Kadiri, U., & Selomangleng, J. Relationship between Basic Feeding Rule Applied by Parents and Eating Difficulties of Children Under Five Years of Age in Kediri, Eats Java. in *Internasional Conference on Public Health Solo* **126** (2020).
5. Lestari, et al. Hubungan Perilaku Picky Eater dengan Status Gizi (BB/U) Anak Usia 2-5 Tahun. *J. Vokasi Kesehatan*. **5**, 67–71 (2019).
6. Hananto, W. *Panduan Merawat Bayi dan Balita*. (PT Wahyu Media, 2016).
7. Rufaida, Z., Wardini, S., & Lestari, P. Pola Asuh dengan Terjadinya Picky Eater (Pilih-Pilih Makanan) pada Anak Usia 3-6 Tahun di Dusun Sumberaji Desa Karangjeruk Kecamatan Jatirejo Kabupaten Mojokerto. *J. Issues Midwifery* **2**, 56–64 (2018).
8. Wirawan, N. A. Hubungan Perilaku Makan Orangtua dengan Perilaku Picky Eater pada Anak Usia Prasekolah (4-6 Tahun). (Universitas Negeri Makasar, 2017).
9. Asih, Y., & Mugiati, M. Pijat Tuna Efektif dalam Mengatasi Kesulitan Makan pada Balita. *J. Ilm. Keperawatan Sai Betik* **14**, 98 (2018).
10. Lestari, R. F., Sari, A. B., & Daniati, M. Pengalaman Ibu yang Memiliki Anak Usia Prasekolah Kesulitan Makan di Paud Imanuel Pekanbaru. *J. Sain Dan Kesehatan*. **7**, 21–27 (2017).
11. Istiqomah, A., & Nuraini, A. Faktor-Faktor Penyebab Kesulitan Makan pada Balita di Posyandu Kaswari Dusun Kanggotan Kidul Pleret Bantul Yogyakarta. *J. Ilmu Kebidanan* **5**, 12–20 (2018).
12. Idris, V. F. Faktor Yang Berhubungan dengan Sulit Makan Anak Usia Pra Sekolah di Tk Angrek Mekar Desa Haya-Haya Kecamatan Limboto Barat Kabupaten Gorontalo. (Universitas Negeri Gorontalo, 2015).
13. Maharani, A. M. A. Hubungan Perilaku Makan Orang Tua dengan Kejadian Picky Eater pada Anak Prasekolah (3-5 Tahun) di TK Wilayah Kerja UPTD Puskesmas Leyangan Kabupaten Semarang. (Universitas Ngudi Waluyo, 2019).
14. Jones L., Moschonis G., Oliveira A., De Lauzon-Guillain B., Manios Y., X. P. The Influence of Early Feeding Practices on Healthy Diet Variety Score among Pre-School Children in Four European Birth Cohorts. *Public Health Nutr.* **18**, 1774–84 (2015).
15. Karaki, B. K., Kundre, R., Karundeng, M. Hubungan Pola Asuh Ibu dengan Perilaku Sulit Makan pada Anak Usia Pra Sekolah (3-6 Tahun) di Taman Kanak-Kanak Desa Palelon Modinding Minasa Selatan. *Ejournal Keperawatan (e-Kp)* **4**, (2016).
16. Nadya, A. Hubungan Kebiasaan Makan Orang Tua, Kejadian Picky Eating Terhadap Status Gizi Anak Prasekolah di TK Islam Al-Azhar Padang. (Sekolah Tinggi Ilmu Kesehatan Perintis Padang, 2019).
17. Damanik, E. S. D. Hubungan Pola Asuh Orang Tua dengan Kesulitan Makan pada Anak Usia 3-5 Tahun di Desa Sukaraya Kecamatan Pancur Batu. (Politeknik Kesehatan Kemenkes RI Medan, 2018).
18. Anggraini, I. R. Perilaku Makan Orangtua dengan Kejadian Makan Picky Eating pada Anak Usia Toddler. *Keperawatan* **5**, 154–162 (2014).