

Diet Quality Index of Infants Aged 6–9 Months of the Baduy Luar Ethnic Group in Lebak Regency, Indonesia

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ABSTRACT

The study aim was to determine the quality of food consumption using the Diet Quality Index for Infants aged 6 to 9 months from Baduy Luar Ethnic Group. The study was conducted in 16 hamlets of Kanekes Village and the sample size was 79 infants. The data were consumption data of infants for one week based on Semi Quantitative Food Frequency Questionnaire (SQ-FFQ). Diet quality results are classified into good, fair and poor. Most of the toddlers consumed breast milk and had low intake of protein, vegetables, fruits while their carbohydrate consumption was in accordance with recommendations. This study shows that quality of food consumption is not associated with nutritional problems in infants.

Keywords: infant, infants diet quality index, nutritional status

INTRODUCTION

Nutritional intake is one of the most important things for the growth and development of children, especially at the beginning of life, and the inadequacy of it can lead to nutritional problems in toddlers, which include underweight, wasting, and stunting (Handriyani & Fitriani 2021). Banten Province has the prevalence of stunting about 24.5% and the prevalence of underweight is 16.6%. The districts with the highest prevalence of stunting and underweight are Lebak District with 27.3% and 19.1%, respectively (MoH RI 2021).

Adequate nutritional intake can be seen from the quality of consumption according to recommendations, which can be measured using the index score diet for infants. Analysis of the quality of infant consumption has never been done in the Baduy Luar ethnic group. The purpose of this study was to determine the quality of diet consumption using the diet quality index for infants aged 6–9 months in the Baduy Luar ethnic group, Lebak, Banten, Indonesia.

METHODS

The study was a cross-sectional study and was conducted in July 2022 at 16 hamlets

in Kanekes Village, Lebak Banten. The location was selected based on the fact that the majority of the community in the village are from the Baduy Luar ethnic group. The sample consisted of 79 infants aged 6 to 9 months who were weaned.

Data included infant weight, height, and diet quality. Diet quality based on infant consumption data from the Semi Quantitative Food Frequency Questionnaire (SQ-FFQ) and was categorized into nine components and scored based on the amount consumed. The nine components were milk, grains, proteins, vegetables, fruits, 100% fruit juices, sugar-sweetened beverages, sweets, and salty snacks.

The amount consumed in a day was then divided into three score categories: 5 points if the intake was still within the recommended amount; 2.5 points if it was slightly above or below the recommended amount; or 0 points if it was not consumed or consumed in excess. The milk group was given 10 points if the baby was partially or exclusively breastfed and 0 points if the baby was not breastfed. The score for each category was summed to obtain a total score ranging from 0 to 55 points, with ≥ 45 being excellent, 35–44 being good, 25–34 being needs improvement, and <25 being poor.

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(Received 09-06-2023; Revised 31-07-2023; Accepted 17-08-2023; Published 30-12-2023)

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RESULTS AND DISCUSSION

The quality of food consumption among infants aged 6–9 months in the Baduy Luar ethnic group can be seen in the amount of food consumed per food group. Based on the results of the analysis using the infant diet quality index questionnaire, the quality of consumption of infants aged 6–9 months was in the poor category. The average diet quality index score for infants was 12.7, with the lowest score being 6.3 and the highest being 18.8. The low dietary quality score was due to the low variety of foods consumed and inadequate intake.

Poor diet quality was also caused by the provision of supplementary foods in the form of carbohydrate sources such as rice with gravy, rice porridge, and instant porridge. The distribution of types of food consumed by the Baduy community can be seen in Figure 1.

The majority of the infants were not given foods with additional side dishes, whether of animal or vegetable origin. Observations showed that the subjects in this study were rarely given fruit, mostly only once a month. The results of this study are consistent with the study by Hardiansyah *et al.* (2017), which found that the majority of infants and toddlers in Indonesia tend to consume more carbohydrates than other food groups. Consumption of poor-quality foods can affect the nutritional status of infants. The results showed that 51.9% of infants were stunted and 32.9% were underweight. The percentage

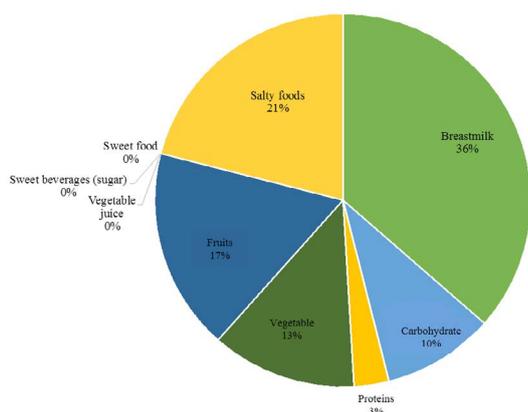


Figure 1. Distribution of type of food consumed by Baduy Luar infants

of underweight infants is not as high as that of stunted infants because the majority of them consume high-carbohydrate foods. In addition, they regularly consumed sweet and salty snacks.

Correlation test with chi-square test on the diet quality and the nutritional status of infants showed a value of $p > 0.05$. This study showed different results from the study of Utami and Mubasyiroh (2020), where the nutritional status of infants could be affected by consumption, even though it had a weak relationship.

CONCLUSION

The quality of food consumed in this study is poor. Most of the infants consumed breast milk, had very low intakes of protein, vegetables and fruits (not in the recommended amounts), and regularly consumed sweet and salty snacks.

ACKNOWLEDGEMENT

We would like to thank the Research and Development Institute of Muhammadiyah University Prof. Dr. Hamka for the internal research funding grants with the Beginner Lecturer Research Scheme and the Government of Lebak Regency, Banten Province for the research permits granted.

DECLARATION OF CONFLICT OF INTERESTS

The authors have no conflicts of interest to declare.

REFERENCES

- Handriyani RF, Fitriani A. 2021. Analisis keragaman pangan yang dikonsumsi balita terhadap faktor resiko terjadinya stunting di Indonesia. *MJNF* 2(1):32–42. <https://doi.org/10.24853/mjnf.2.1.32-42>
- Hardiansyah A, Hardinsyah, Sukandar D. 2017. Kesesuaian konsumsi pangan anak Indonesia dengan pedoman gizi seimbang. *Nutri-Sains* 1(2):1–11. <https://doi.org/10.21580/ns.2017.1.2.2452>
- [MoH RI] Ministry of Health Republic of Indonesia. 2021. *Buku Saku Hasil Studi Status Gizi (SSGI) Indonesia Tahun 2021*. Jakarta (ID): Badan Penelitian dan

Pengembangan Kesehatan Kementerian Kesehatan RI.
Utami NH, Mubasyiroh R. 2020. Keragaman Makanan Dan Hubungannya Dengan Status

Gizi Balita: Analisis Survei Konsumsi Makanan Individu (SKMI). Journal of The Indonesian Nutrition Association. 43(1): 37–48. <https://doi.org/10.36457/gizindo.v43i1.467>