

Parents' Perceptions Regarding Fulfilling Children's Nutritional Needs According to the Contents of My Plate in Pujon District

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ABSTRACT

Background: Providing adequate nutrition for early childhood is crucial for optimal growth and development. The government has strived to improve nutritional quality through the "Isi Piringku" (My Plate) guidelines, which emphasise balanced intake of carbohydrates, protein, and vegetables and fruit. In this context, parental perception is key, as they are fully responsible for providing and managing their children's daily meals.

Aims: This study aims to determine the level of parental perception in fulfilling children's nutritional needs based on the "Isi Piringku" guidelines in the Pujon District area.

Methods: This study employed a quantitative approach with a descriptive research design. Subjects included 67 parents from four villages in Pujon District: Ngabab, Pandesari, Bendsari, and Pujon Kidul. Data were collected using a questionnaire and analysed using percentage analysis.

Result: The research results show that parents in Pujon District generally have low perceptions regarding children's nutritional needs according to the "Isi Piringku" guidelines. While basic understanding of food portion sizes is quite good, specific weaknesses remain in understanding micronutrients and the classification of certain types of food.

Conclusion: The study concluded that although parents understand the importance of a balanced diet, their daily implementation is not optimal. Therefore, more intensive, structured, and sustainable efforts are needed to improve nutrition education for parents to achieve ideal child nutrition in Pujon District.

Keywords: Parental Perception, Children's Nutritional Fulfillment, My Plate Contents

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INTRODUCTION

Meeting the nutritional needs of young children is crucial, as it forms the cornerstone of supporting their optimal growth and development. (Munawaroh et al. 2022; Nasution et al. 2024). Adequate nutrition which includes a balanced intake of carbohydrates, protein, and fruit and vegetables significantly determines children's future physical health, brain development and cognitive abilities. (Leda et al., n.d.; Sekriptini et al. 2024). Investing in nutrition at an early age is not merely a short-term health effort, but a strategic step to prevent serious problems such as stunting, wasting, and decreased productivity in adulthood (Kotrunnada et al. 2022; Juliana et al. 2022).

However, there is a gap between the ideal practice of balanced nutrition and actual conditions in the field (Orbawati et al. 2025; Wathon 2025; Aminuddin and Wijaya 2025). Ideally, nutritional fulfilment should refer to the "Isi Piringku" guidelines, which emphasise balanced portions between food groups. In reality, nutritional problems such as stunting remain a major challenge, as seen in Pujon District, where stunting rates in certain areas remain quite significant due to inappropriate feeding patterns. Deficits in energy, protein, and iron intake in toddlers indicate that daily community practices are not fully aligned with recommended health standards (Kurniawan et al. 2025; Nendrasari et al. 2026).

The opportunity to conduct this research is significant, given that the government is aggressively promoting nutrition education and health intervention programmes through various initiatives. The Supplementary Feeding Programme (PMT) and the pilot free healthy meal programme in schools in Pujon District demonstrate the structural support and opportune momentum for researchers to evaluate the extent to which these health messages are received by the community. Public openness to these government programmes provides a strategic entry point for conducting research in the region (Merlinda and Yusuf 2025; Albaburrahim et al. 2025; Ridwan et al. 2024).

A research gap in this study lies in the limited literature that specifically examines parents' perceptions of the 'Isi Piringku' guidelines in rural areas with unique socio-cultural characteristics, such as Pujon District. As an agropolitan area dominated by the dairy farming and vegetable farming sectors, the people of Pujon face a particular paradox; although access to animal protein (milk) and fresh vegetables is readily available, their dietary patterns are still often influenced by local customs that prioritise the quantity of carbohydrates over a balanced nutritional variety. Furthermore, the strong role of community leaders and communal upbringing in this area lends a distinct character to the formation of health perceptions that differ from those in other rural areas.

The selection of parental perception as the primary focus is based on their vital role as the key decision-makers in providing and managing children's consumption at home. Parents are the figures most responsible for shaping children's eating habits; if they possess positive and accurate perceptions regarding nutrition, there is a higher tendency to prepare healthy meals.

The primary objective of this study is to gain in-depth insight into parents' perceptions of the "Isi Piringku" guidelines in Pujon District. This research is expected to provide a theoretical contribution by adding to the literature on the psychological influence of parents on children's eating habits. Practically, this research's contribution is intended to help parents make better food choices and to provide health institutions with empirical data to design more effective and targeted nutrition education strategies in the future.

Method

Research Design:

This study employed a quantitative approach using a survey (Anas Hidayat 2024). This approach was chosen to deeply understand parents' perceptions regarding their children's nutritional needs, according to the "Isi Piringku" (My Plate) guidelines in Pujon District. Using the survey method, researchers were able to explore parents' subjective experiences, perspectives, and meanings regarding their children's eating patterns within specific social and cultural contexts.

Participants:

The primary participants or subjects in this study were parents or guardians of early childhood children (aged 1-5 years) in Pujon District, Malang Regency. In addition to parents, the study also involved medical personnel working at integrated health posts (Posyandu) as additional informants to provide perspectives on the implementation of balanced nutrition in the community. A total of 67 respondents participated in the primary data collection.

Population and sampling methods Instrumentation:

The study population included all parents with children aged 1-5 years in Pujon District, with sampling using a purposive sampling method. This technique was carried out by considering certain criteria, namely parents who are active in Posyandu activities and understand the importance of child nutrition. The determination of the minimum sample size of 67 people was carried out using the Slovin formula with a 5% error tolerance level to ensure the validity of the collected data.

Instrument:

The research instrument consists of a 30-item questionnaire structured around three primary domains: perception of carbohydrate, protein, and fruit and vegetable components. Each item is measured using a 5-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). To ensure data quality, the instrument underwent content validity testing through expert judgment by specialists in public health and nutrition, ensuring alignment with research objectives and 'Isi Piringku' (the national dietary guidelines) standards. Furthermore, reliability was assessed using Cronbach's Alpha. The results yielded coefficient values exceeding 0.70 across all dimensions (carbohydrates, proteins, and fiber), indicating strong internal consistency and confirming the instrument's reliability for data collection.

Procedures and Time Frame

The research procedure was conducted in November 2025 at four integrated health posts (Posyandu) in Pujon District: Ngabab, Pandesari, Bendosari, and Pujon Kidul Villages. The research phase began with instrument development, guided questionnaire revisions in October 2025, and ended with direct data collection from informants in the field. This entire process was conducted systematically to obtain a holistic picture of parental nutritional care practices in the region.

Analysis Plan

The data analysis plan utilised percentage analysis to process the questionnaire results. The scores obtained were converted into percentages and classified into three categories: high (76–100%), moderate (56–75%), and low ($\leq 55\%$). Furthermore, the researchers applied Miles and Huberman's analysis techniques, which included data reduction to sort relevant information, presenting data in narrative or tabular form, and drawing conclusions verified through triangulation.

RESULTS AND DISCUSSION

Result

Based on data collection from 67 respondents in four villages in Pujon District, the following is the distribution of parents' perception levels in fulfilling children's nutrition based on the "Isi Piringku" aspect:

Table 1. Fill My Plate

No	Evaluation Aspects	Number of Responses Frequency	Percentage
1	Carbohydrate	603	32.69
2	Protein	268	34.23%
3	Vegetables & Fruits	1,139	33.08
Total		2,010	100

Source: Data processed from Table 4.6 of Azzah Afifah's thesis

Clarification Note: The figures 1,139 and 2,010 in Table 1 represent the accumulated total frequency of responses (scores) across all questionnaire items. Given that there are 67 respondents with a total of 30 items, the overall accumulation of responses results in a total figure of 2,010. In addition to the tabular presentation, the proportion of parental perception regarding 'Isi Piringku' components is visually illustrated in the following pie chart.

The data analysis showed that parents' perceptions of the three main components of "My Plate" were relatively evenly distributed. Protein received the highest percentage at 34.23%, followed by vegetables and fruit at 33.08%, and carbohydrates at 32.69%. This indicates that cognitively, parents place slightly greater emphasis on the role of protein in child development than on the other components.

Regionally, Bendosari Village demonstrated the highest perception contribution (26.18%), followed by Pandesari Village (25.63%), Pujon Kidul Village (24.23%), and Ngabab Village (23.96%). Although there was variation between villages, collectively, respondents' perceptions were in the fairly good category regarding understanding the information conveyed through government programme socialisation.

This high perception score (above 80% for several indicators) indicates that the educational message about balanced portion sizes, i.e., 50% of the plate for vegetables and fruit and the remaining 50% for staple foods and side dishes, has been well-received by the community in Pujon District. However, the main challenge remains how this positive perception can be translated into consistent daily feeding practices at the household level.

Discussion

The discussion of the research results revealed that although parents' perceptions were high, this did not fully align with the actual nutritional status in the region, which still faces the challenge of stunting. High perceptions indicate that parents have adequate "cognitive knowledge" about the function of nutrients (Wulansari and Rahmawati 2025; M.Kes et al. 2024), such as the role of carbohydrates as a source of energy and protein for bone growth (Abdullah 2023; Safitri et al. 2025; Solichatin et al. 2022). However, external factors such as socioeconomic conditions and the availability of fresh food at the village level often hinder the implementation of the ideal "Isi



The research data indicates that protein received the highest perception percentage (34.23%) compared to other components. This is suggested to be an impact of the intensive socialization of stunting prevention programs by the local government, which consistently emphasizes the importance of animal protein for children's linear growth. Furthermore, culturally, the community in Pujon District a major agropolitan center has a close proximity to protein sources such as milk and eggs. Consequently, they cognitively place a higher emphasis on the role of protein in children's physical and bone development compared to carbohydrate or vegetable components.

This research provides a theoretical contribution in the form of new literature on the profile of rural communities' perceptions of the "Isi Piringku" programme. Practically, this data can be used by community health centres (Puskesmas) or integrated health post (Posyandu) cadres in Pujon District as a database for designing more specific nutrition assistance programmes based on the characteristics of residents' understanding in each village.

A limitation of this study lies in the data collection method, which relied solely on self-reported questionnaires. This suggests that respondents may have provided answers that were considered "normative" or ideal rather than reflecting actual conditions at home. Furthermore, this study did not measure children's nutritional status anthropometrically (weight/height) to directly correlate parental perceptions with their physical condition.

Based on the results of this study, it is recommended that parents be more consistent in implementing balanced nutritional portions by not only focusing on food quantity, but also paying attention to the diversity of food types to ensure children's micronutrient needs are optimally met. In line with this, health agencies are expected to hold real-life activities such as cooking demonstrations or assistance in preparing "Isi Piringku" menus based on local food ingredients at each Posyandu to bridge the gap between theoretical knowledge and daily practice. Meanwhile, for future researchers, it is recommended to conduct qualitative research or more in-depth case studies to explore the cultural and economic barriers that cause high parental perceptions not always directly proportional to a decrease in the number of nutritional problems in the field.

For future research, it is recommended to conduct qualitative studies or in-depth case studies to explore the underlying cultural and economic barriers. Furthermore, to address the inherent limitations of self-reported questionnaires, future studies should employ direct observation of children's dietary patterns within the household. This approach is essential to objectively record actual feeding practices and to validate whether parents' high perceptions are truly reflected in the children's daily nutritional intake.

CONCLUSION

Based on the results of research and data analysis regarding parental perceptions in fulfilling children's nutrition according to the "Isi Piringku" guidelines in Pujon District, it can be concluded that the level of parental perception is in a significantly high category, which indicates that the government's socialisation programme regarding balanced portions has been conveyed and well received by the community. This is reflected in the distribution of perceptions regarding nutritional components, which are spread proportionally, with the protein aspect receiving the highest attention at 34.23%, followed by the vegetable and fruit aspect at 33.08%, and the carbohydrate aspect at 32.69%, indicating a strong cognitive awareness of the function of nutrients for child growth. Geographically, this high level of perception was found throughout the research area, with the highest contribution coming from Bendosari Village (26.18%), followed by Pandesari Village (25.63%), Pujon Kidul Village (24.23%), and Ngabab Village (23.96%) as an important foundation in family menu planning. However, although parental perception is very high in all villages, there is still a gap with real conditions where the prevalence of nutritional problems such as stunting is still found, thus indicating that good knowledge is not always directly proportional to field practice due to the influence of external factors such as socio-economic conditions and daily parenting patterns.

AUTHOR CONTRIBUTION STATEMENT

AA served as the principal investigator, responsible for the entire research process, from the original idea formulation and primary data collection in the field through questionnaires, to data analysis and thesis draft writing. IHE provided significant contributions in academic guidance, including methodological oversight, critical review of research instruments, and substantive input to refine the discussion of the research findings. Both authors reviewed and approved the final version of this paper for publication.

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