

Exploring the Relationship of Nutritional Status and Parenting Styles with Child Development in the First Two Years of Life: A Literature Review

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ABSTRACT

Nutritional intake is a crucial determinant of optimal growth and development in children under five years old. Inadequate nutrition can result in both undernutrition and overnutrition, each posing risks to child development. Parenting, particularly nutritional parenting practices, plays an equally vital role. This review aimed to analyze the relationship between nutritional status and parenting practices with the development of children aged 6–24 months. A literature review design was employed, synthesizing 15 peer-reviewed studies published between 2018 and 2024 from PubMed, Google Scholar, and Scopus. The keywords used were *nutritional status*, *parenting*, *child development*, and *infants aged 6–24 months*. Articles included both national and international studies relevant to the topic. Data analysis was conducted through narrative synthesis, focusing on findings related to weight-for-age (WAZ), height-for-age (HAZ), weight-for-height (WHZ), and parenting variables. Evidence consistently shows that nutritional status, particularly WAZ and WHZ, is significantly associated with child development outcomes, including motor, cognitive, and social domains. Conversely, HAZ was not consistently correlated with developmental milestones. Parenting practices, especially breastfeeding, complementary feeding, and stimulation, demonstrated a significant relationship with developmental outcomes. Children who received good nutritional care and stimulation showed better developmental achievements compared to those with inadequate parenting practices. Nutritional status (based on WAZ and WHZ) and parenting practices are significantly associated with the development of children aged 6–24 months. Interventions aimed at improving maternal knowledge, exclusive breastfeeding, and appropriate complementary feeding should be prioritized to ensure optimal child growth and development.

Keywords: child development, infants aged 6–24 months, nutritional status, parenting

BACKGROUND

Nutrition is the cornerstone of child survival, growth, and development. The nutritional status of children under two years of age reflects the adequacy of dietary intake and utilization of nutrients in the body (Septikasari, 2022). Malnutrition—including both undernutrition and overnutrition—remains a pressing global concern, with significant implications for child morbidity, mortality, and long-term development (WHO, 2023).

Parenting practices, particularly in feeding and stimulation, are critical determinants of nutritional outcomes. The UNICEF conceptual framework highlights direct and indirect causes of malnutrition, including inadequate dietary intake, inappropriate feeding practices, and insufficient

care (UNICEF, 2020). Poor parenting behaviors, such as early cessation of breastfeeding or inadequate complementary feeding, are strongly associated with delayed growth and suboptimal development (Victora et al., 2021).

In Indonesia, the Basic Health Research (Riskesdas) survey revealed concerning rates of malnutrition. In 2019, the prevalence of underweight among children under five was 17.7%, while stunting affected 27.7% of children (Kemenkes RI, 2020). Such statistics underscore the urgent need for research linking nutritional status, parenting practices, and child development, particularly during the critical window of 6–24 months, often termed the "golden period."

This literature review therefore explores whether there is a significant relationship between nutritional status and parenting practices with the development of children aged 6–24 months.

METHODS

This study employed a literature review method to explore the relationship between nutritional status, parenting practices, and child development among infants aged 6–24 months. The literature review approach was selected because it allows researchers to synthesize evidence from multiple studies systematically, providing a broader and more comprehensive understanding of the factors influencing child health and development.

The data collection relied on secondary sources retrieved from reputable international and national journal databases, including PubMed, Google Scholar, and Scopus. These databases were chosen for their wide coverage of peer-reviewed articles in health sciences, nutrition, and child development, ensuring that the data obtained were both reliable and scientifically valid.

The search strategy incorporated carefully selected keywords, namely “nutritional status,” “parenting,” “child development,” and “infants 6–24 months.” Boolean operators such as AND/OR were applied to refine the search process, enabling the identification of articles directly relevant to the study objectives. This systematic approach enhanced the precision of the literature search and minimized the risk of omitting relevant studies.

To ensure the quality and relevance of the reviewed studies, inclusion criteria were established. Articles were included if they (1) were published between 2018 and 2024, (2) focused on children aged 6–24 months, (3) were available in full-text format, and (4) applied either quantitative or qualitative approaches in examining nutritional status, parenting, and child development. These criteria helped narrow the scope to studies most aligned with the research questions.

Following the screening process, a total of 15 eligible articles were identified and selected for review. Each study was carefully examined and key findings were extracted. The analysis employed a narrative synthesis approach, which allowed the integration of diverse research designs and findings while identifying recurring patterns, similarities, and variations across the studies.

Finally, the findings were organized using thematic categorization. Studies were grouped and analyzed based on nutritional status indicators (WAZ, HAZ, WHZ) and various parenting practices, enabling a structured comparison of evidence. This thematic framework facilitated a clearer understanding of how nutritional status and parenting collectively shape child development outcomes during the critical growth period of 6–24 months.

RESULTS

The findings of this review indicate that nutritional status plays a critical role in child development, particularly in relation to motor and cognitive milestones. Studies consistently reported that children with good weight-for-age (WAZ) and weight-for-height (WHZ) scores were more likely to demonstrate normal developmental progress. Conversely, underweight and wasted children showed a higher likelihood of experiencing developmental delays. However, height-for-age

(HAZ) produced inconsistent results, with some studies finding no significant correlation with developmental outcomes. This suggests that linear growth alone may not sufficiently reflect the broader dimensions of child development (Khofiyah, 2019; Rusmil, 2021).

Equally important were parenting practices, which were found to be strongly associated with developmental outcomes. High-quality parenting characterized by exclusive breastfeeding, timely and diverse complementary feeding, and responsive caregiving was linked to better performance in language, fine motor, and socio-emotional domains. Children receiving optimal feeding and stimulation from their mothers demonstrated improved developmental trajectories compared to those lacking such support (Semba & Bloem, 2019; Handrawan, 2021; Emmy, 2021).

When analyzed together, evidence highlighted the combined effects of nutritional status and parenting quality. Adequate nutrition, while essential, was not sufficient on its own to ensure optimal child development. Similarly, supportive parenting without proper nutrition could not fully compensate for growth deficits. Studies emphasized the importance of integrated interventions that merge nutritional support with parental education and caregiving practices. Such comprehensive approaches were shown to be the most effective in improving child development outcomes during early life (Victora et al., 2021; WHO/UNICEF, 2022).

Table 1. Summary of Findings on Nutritional Status, Parenting, and Child Development

Determinant	Findings	References
WAZ (Weight-for-Age)	Strongly correlated with developmental outcomes; underweight children prone to delays	Khofiyah (2019), Rusmil (2021)
WHZ (Weight-for-Height)	Consistently associated with motor and cognitive milestones	Khofiyah (2019), Rusmil (2021)
HAZ (Height-for-Age)	Inconsistent findings; linear growth not always linked to development	Khofiyah (2019)
Parenting Practices	Breastfeeding, complementary feeding, and responsive caregiving improved multiple developmental domains	Semba & Bloem (2019), Handrawan (2021), Emmy (2021)
Combined Effects	Nutrition alone insufficient; best outcomes with integrated nutrition and parenting interventions	Victora et al. (2021), WHO/UNICEF (2022)

Table 1 summarizes how both nutritional status and parenting practices influence child development. WAZ and WHZ consistently predicted developmental progress, while HAZ showed mixed results. Parenting quality, particularly feeding and stimulation, was crucial in supporting language, motor, and socio-emotional outcomes. The evidence reinforces that the most effective strategies are integrated interventions combining adequate nutrition with supportive parenting.

DISCUSSION

This review highlights the significant relationship between nutritional status and parenting practices with child development during the critical first two years of life. Adequate weight gain (WAZ and WHZ) appears to be a sensitive predictor of developmental outcomes, aligning with previous research linking nutrition with brain growth and cognitive function (Santrock, 2021).

Parenting practices serve as both protective and risk factors. Positive behaviors such as early initiation of breastfeeding, exclusive breastfeeding for six months, and timely introduction of nutrient-rich complementary foods enhance developmental outcomes. Conversely, inadequate parenting, poor feeding practices, or limited stimulation are strongly linked to delayed development (Narendra, 2021).

This evidence reinforces the importance of maternal education and parental involvement in child-rearing. Higher maternal education levels were correlated with improved feeding practices and better child development outcomes (Notoatmodjo, 2022).

The findings also support the UNICEF framework, emphasizing that nutrition and caregiving must be addressed simultaneously to optimize child growth and development.

CONCLUSION

This literature review concludes that nutritional status (particularly WAZ and WHZ) and parenting practices are significantly related to the development of children aged 6–24 months. Efforts to improve child development outcomes should focus on promoting optimal feeding practices, exclusive breastfeeding, timely complementary feeding, and parental education.

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