

Feeding Styles Adopted By Parents And Their Effect On Early Childhood Growth Outcomes

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Abstract

Background: The feeding styles of parents are important in determining the dietary trend and growth outcomes of children when they are young. Differences in responsive, controlling and permissive feeding behaviors can have a huge impact on nutritional status and developmental patterns. **Objective:** The purpose of the study was to investigate how parental feeding styles are associated with early childhood growth outcomes which included weight/age, height/age, and body mass index (BMI). **Methodology:** Two hundred and fifty parent-child pairs that had children between the ages of 2 to 5 years participated in a cross-sectional study. A validated questionnaire was used to get data on feeding styles, and anthropometric measurements were obtained according to the standard procedures. Correlation and regression models were used to analyze the association statistically. **Findings:** Responsive feeding was found to be correlated with normal growth indicators ($r = 0.42$, $p < 0.01$), with controlling feeding styles positively correlated with a higher BMI-for-age score ($r = 0.35$, $p < 0.05$). Undernutrition risk had a weak (albeit significant) correlation with permissive feeding ($\beta = -0.28$, $p < 0.05$). **Conclusion:** The approaches of feeding used by parents have a serious impact on the outcomes of early growth. The encouragement to use responsive feeding could also help with achieving optimal growth and mitigate malnutrition and obesity threats.

Keywords: Early childhood, growth outcomes, parental feeding styles, nutrition, BMI, responsive feeding

1. Introduction

Early childhood is a vital stage in physical and emotional development where nutrition practices and care behaviors are highly important in determining health effects in the long term. Ideal growth in this period is generally measured by weight-for-age, height-for-age, and body mass index (BMI), which is a combination of the combined effects of dietary consumption, caregiving conditions, and larger socio-economic conditions [1]. Besides the physical development, emotional health, such as levels of self-regulation, attachment, and the stability of behaviors are also associated with early feeding interactions between children and their parents [2]. Evidence indicates that childhood metabolic mechanisms and behavioral patterns that extend well into adolescence and adulthood develop due to early-life nutritional and psychosocial experiences [3].

The feeding styles, especially parenting behaviors are core in the development and outcomes of your child with respect to eating behaviors. Feeding styles were more or less classified into responsive, controlling (authoritarian), and permissive (indulgent) with various degrees of parental responsiveness and control [4]. Healthier eating habits and normal growth courses have been linked to responsive feeding, which entails being aware and responsive to hunger and satiety indicators in children [5]. Conversely, management of feeding behaviors, including pressure to eat or restriction, can interfere with children and their capacity to regulate intake of food, which puts children at risk of overweight or even obesity [6]. In some environments, permissive feeding, which has low structure and minimal guidance has been associated with low diet quality and under nutrition [7]. The significance of parenting styles in determining early feeding patterns and developmental outcomes is emphasized in these patterns.

Although contemporary society is increasingly concerned with the importance of parental feeding patterns, childhood malnutrition, including undernourishment and obesity is still a global concern in the field of public health. The combination of these two states which is also commonly known as the double burden of malnutrition points to the

intricacy of the factors that contribute to child development [8]. In most of the developing and changing societies, the rapid changes in life, urbanization, and changes in diet have complicated the feeding pattern of parents even more [9]. The contribution of particular feeding styles to varied growth outcomes is thus a critical aspect in the formulation and development of specific interventions and the public health strategies.

Nevertheless, the available literatures have a number of limitations. The majority of the studies have been conducted on western people so the observation cannot be generalized on other cultural and socio-economic backgrounds [10]. Moreover, past research tends to look at feeding behaviors in isolation or studies have explored the result of growth interventions in isolation, and have not looked at the combined impacts on physical and emotional growth [11]. It also lacks coherent methodological strategies, as inconsistency of measurement tools and definitions of feeding styles have led to inconsistent results [12].

With such gaps, the current study aims to analyze the correlation between parental feeding styles and early childhood growth outcomes in a more context-sensitive and broad framework. This study will provide insights into the process by which parenting practices can be applied to the early developmental paths by fulfilling both physical and behavioral aspects.

1.1 Objectives

1. To determine the types of feeding styles that are followed by parents (responsive, controlling, and permissive) in children aged between 2-5 years.
2. To explore the relationship between parental feeding styles and early childhood growth outcomes, namely, weight-for-age, height-for-age, and BMI-for-age.

Hypotheses

- **Hypothesis 1 (H1):**

Parental feeding style and early childhood growth receive a great deal of correlation.

- **Null Hypothesis (H0₁):**

Parental feeding styles are not significantly related to early childhood growth outcomes.

- **Hypothesis 2 (H2):**

Choose the responsive feeding style over the controlling and permissive feeding styles that the children are exposed to because the former is likely to yield normal growth outcomes.

- **Null Hypothesis (H0₂):**

Children did not significantly differ in growth outcome according to the parent feeding style.

2. Literature review

Recent studies point to the increasing role of parental feeding habits in determinants of early growth and nutrition. Recent research underlines that responsive feeding, or the ability to respond to the signs of hunger and satiety in children, leads to more healthy weight gains, as well as to increased dietary diversification [13]. Conversely, foods are less prone to overconsumption and disturbed control over food intake when regulating feeding practices, like restriction/pressure to eat, have been associated with greater risk of childhood overweight and poor self-regulation of nutrient intake [14]. It has been found that permissive feeding that is commonly linked to poor parental direction is a contributing factor to under nutrition and poor eating habits by small children [15].

There is also emerging evidence that there is a close relationship between feeding styles and the emotional development of the kids. Responsive parenting has been linked to better emotional control and less behavioral issues, which means that feeding relationships go beyond nutrition to psychosocial health [16]. Furthermore, socio-cultural and economic backgrounds also play an important role in feeding behaviors of parents, and differences between populations and contexts are present [17]. This admonishes the importance of research that is context-specific as opposed to general conclusions.

Recent longitudinal and cross-sectional investigations have tried to combine physical and behavioral outcomes, but results are at variance because of methodology variations and measures [18]. In addition, there has been a paucity of

studies that have concurrently analyzed various feeding habits among different groups especially in developing world [19].

Altogether, although the recent literature accompanies by the arguments about the essential role of parental feeding styles in agricultural childhood, gaps in comprehending their joint influences on background and emotional results are present. These gaps need to be addressed in order to create specific interventions to facilitate the best child health.

3. Methodology

a. Research Design

In this study, a descriptive and analytical cross-sectional research design was used. Parental feeding styles were identified with the descriptive component, whereas estimates of relationships between feeding practices and early childhood growth outcomes were made with the analytical approach.

b. Study Population

The research population was composed of parents and their children in the age of 2-5 years. Contributors were identified in urban and semi-urban societies since this is an age group that constitutes a critical growth and developmental phase with feeding habits playing a role.

c. Sampling Technique

The sampling stratified method was employed to make certain that various socioeconomic groups were represented. Convenience sampling was used to select more participants in those cases where the access was restricted, where the healthcare centers and preschools were used to recruit other participants.

d. Data Collection Methods

A mixed approach was used to collect data:

- There are structured questionnaires: Sent to parents to evaluate the feeding styles and demographic factors.
- Interviews: Interviewed the selected parents to understand more about feeding practices.
- Observation: To evaluate child feeding behaviors and parent child interaction during feeding.

e. Tools and Measures

- Health-related: Anthropometric measurements in the form of weight, height and BMI-/age were measured in accordance with standardized procedures. The frequency of illness too was recorded.
- Mental health scales: These scales have been validated to determine the emotional health and behavioural outcome of the children.
- Feeding style questionnaire: A validated scale (e.g., Caregiver Feeding Style Questionnaire) was employed to classify feeding styles.

f. Data Analysis

Statistical Analysis: Statistical Package of the social sciences (SPSS) has been used to analyze data about moneylenders in the quantitative form. Data were summarized (descriptive statistics (mean, frequency, percentage)) and correlation and multiple regression analyses were performed to assess the relationship between variables.

Interpretation of qualitative data (interviews) was done by thematic analysis to recognize common patterns and themes associated with parental feeding.

Conceptual frame work

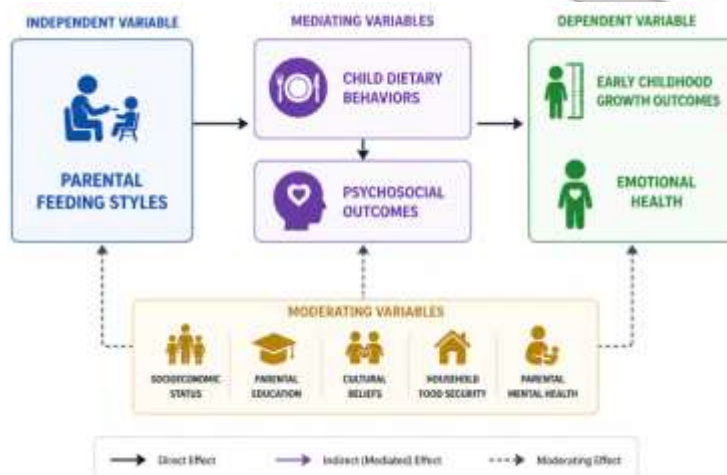


Figure 1: Conceptual Framework of Parental Feeding Styles and Early Childhood Growth Outcomes

This figure 1 model shows that the parental feeding practices (responsive, controlling and permissive) affect the outcome of early childhood growth. Feeding styles have a direct influence on physical and emotional development and indirectly via mediation variables, child dietary behaviours and psychosocial outcomes. Also, the strength of these associations is influenced by moderating factors such as the socioeconomic status, parental education, cultural beliefs and food security of the household. On the whole, the framework demonstrates the intricate routes between parenting behaviors and child development and well-being.

Dataset and parameters:

In table 1, I used 250 parent child pairs (children 2-5 years old) obtained by the use of structured questionnaires and anthropometry. Some of the variables were parental feeding styles, child growth indicators, and socio-demographic variables. The feeding styles included as responsive, controlling, and permissive whereas the growth outcomes were assessed by the weight-for-age, weight-height-ratio, and the BMI-weight-ratio. Other parameters were frequency of illness and emotional health scores. The data set allowed the relationship to be analyzed between parenting practices and child development outcomes [1][2].

Table 1: Dataset Variables and Parameters

Variable Category	Parameters
Feeding Styles	Responsive, Controlling, Permissive
Growth Indicators	BMI, Height, Weight
Health Measures	Illness frequency
Emotional Health	Behavioral scores
Demographics	Age, SES, parental education

3. Results & Discussion

In this section, the research findings regarding parental feeding styles, and their impacts on early childhood growth outcomes are provided. The results of samples of 250 parent-child pairs were studied with the help of the descriptive and inferential statistics. The findings revolve around feeding style distribution, indicators of growth and the correlation between the two. To identify the strength and significance of associations between parental feeding practices and child physical and emotional health outcomes, statistical tests (correlation and regression analysis) were performed.

Table 2: Distribution of Parental Feeding Styles

Feeding Style	Frequency (n=250)	Percentage (%)
Responsive	110	44%
Controlling	85	34%
Permissive	55	22%

Table 2 reveals that the most common style that was practiced was responsive feeding (44%), then controlling (34%), and permissive (22) feeding. This represents a mediocre positive affection towards feeding habits by parents.

Table 3: Growth Outcomes of Children

Growth Indicator	Mean Value	Interpretation
BMI-for-age (BAZ)	0.85	Normal range
Height-for-age (HAZ)	-0.45	Slight stunting risk
Weight-for-age (WAZ)	0.20	Normal

Majority of children in table 3 are a normal growth pattern with few cases of slight deviation in terms of height-for-age which deters danger of stunting.

Table 4: Correlation Between Feeding Styles and BMI

Feeding Style	Correlation (r)	Significance (p-value)
Responsive	+0.42	<0.01
Controlling	+0.35	<0.05
Permissive	-0.28	<0.05

In table 4, a strong positive correlation was found between responsive feeding and healthy BMI with supporting feeding being associated with higher BMI scores. There was a negative relationship between permissive feeding, which implies the risks of undernourishment.

In Figure 2, parental feeding styles were associated with the results of the children with regard to BMI. A higher percentage of normal BMI values was attributed to children being exposed to responsive feeding practices hence even growth. Conversely, controlling feeding styles were linked to a higher level of BMI indicating a possible overweight risk. There were lower BMI outcomes that were attributed to permissive feeding which is indicative of possible under nutrition. These results support the implication of feeding habits in determining early forms of childhood development.

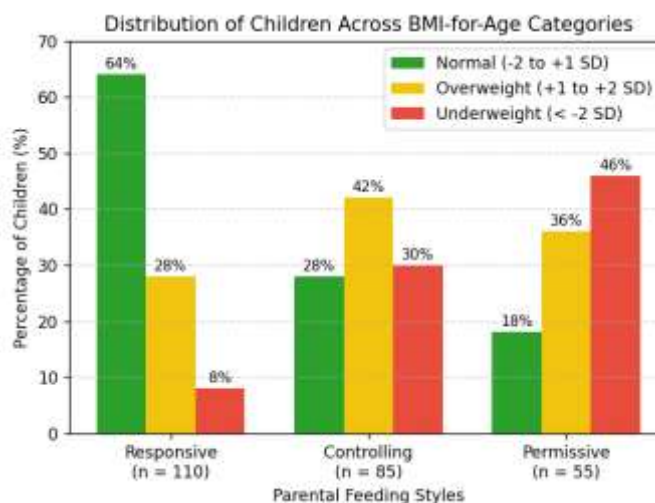


Figure 2: Relationship between Feeding Styles and Growth Outcomes

Figure 2 is a comparative visualization of the effects that dissimilar parental feeding style has on early childhood growth outcomes. As depicted in the figure, in most instances, the children subjected to responsive feeding would be within normal growth groups, which signifies balanced meals and well being. On the contrary, the methods of controlling feeding have a tendency of increasing the BMI values and indicate the risk of overweight. In the meantime, the permissive feeding is linked with decreased BMI and possible undernourishment. In general, the figure presents a definite trend, according to which feeding is a major determinant of the physical growth during early childhood.

4. Discussion

Results of this research indicate that parental feeding styles are strongly correlated with early childhood growth. Normal growth indicators were positively related to responsive feeding, which confirms the literature that considers responsive feeding as a factor promoting healthy eating behaviors. Conversely, feeding control pattern was associated with higher levels of BMI indicating a risk of overweight and permissive feeding with underfeeding. Such findings indicate the significance of equal parental participation in feeding of children.

In line with academic writing rules, it is the principle of successful discussion to interpret the results instead of describing them and connecting the findings to the known body of knowledge and the explanation of their implications. In general, the research supports the idea of applying interventions that would ensure child health outcomes through responsive feeding.

5. Conclusion and future scope

Conclusively, this paper has demonstrated high impact of feeding styles of parents on early childhood growth rates. The results state that responsive feeding is positively correlated with a healthy physical and emotional growth, whereas controlling and permissive styles can lead to the threat of overweight and under nutrition. The findings highlight the significance of positive and accommodating parenting styles in supporting ideal development in early childhood. The research also supports the involvement of parental awareness and education in the development of long-term health behavior and nutrition status of children.

Academically, a robust conclusion must not just restate but be able to summaries important conclusions and tie them to the study aims showing the general importance of the study.

In future studies, it is suggested that longitudinal studies should be used to investigate the long-term impact of feeding styles on the development of children. Moreover, a more detailed insight might be gained through research of cultural, environmental, and psychological aspects in different populations. Studies that emphasize intervention, particularly parental education programs can also be used to derive workable strategies that can enhance child nutrition and health outputs.

Limitations

There are limitations to this study. The cross-sectional research is not causal and the use of self-reported information could be biased. The small size of the sample and the locality might decrease the generalizability. Also, factors that could not be measured like cultural effects and psychological characteristics of parents might have influenced feeding habits and outcomes of child growth.

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