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Mothers' Perception about Healthy Diet of Preschool Children in Bangladesh

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Abstract Childhood is a crucial period for growth and development, requiring the right foods in the right amounts at the right times to help children reach their full potential. Mothers' perceptions play an essential role in establishing healthy eating habits in children, influencing their long-term health. This study aimed to assess mothers' perceptions regarding the healthy diets of preschool children in Bangladesh. A cross-sectional study was conducted with 132 participants selected through convenience sampling to evaluate mothers' views on healthy diets for preschoolers. Data were collected using a newly developed structured questionnaire, divided into two sections: a socio-demographic questionnaire and a section assessing mothers' perceptions of healthy diets. Face-to-face interviews were used to gather data, and analysis was performed using SPSS version 26. Descriptive statistics (frequency, percentage, mean, standard deviation) and inferential statistics (t-test, correlation, and ANOVA) were applied. The mean age of participants was 29.4 years (SD = 6.424). Statistically significant relationships were found between mothers' educational level and perceptions of a healthy diet (F=6.315, p=.000), fathers' educational level and perceptions of a healthy diet (F=5.611, p=.000), participants' occupation and perceptions of a healthy diet (F=2.497, p=.046), fathers' occupation and perceptions of a healthy diet (F=3.358, p=.021), and residential area and participants' perceptions of a healthy diet (t=-2.633, p=.009). Additionally, there was a positive, significant correlation between family income and perceptions of a healthy diet (r=.266, p=.002). The study highlights a significant gap between mothers' perceptions and actual knowledge regarding healthy diets for preschool children in Bangladesh. Interventions are necessary to enhance mothers' understanding and practices related to child nutrition. Educational programs and public health campaigns targeting mothers, particularly in rural areas, could play a critical role in promoting healthier eating habits among preschool-aged children.

Keywords Children, Healthy Diet, Mothers, Perception, Preschool

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Introduction

Malnutrition is a pervasive global issue, impacting millions and resulting in significant health challenges, particularly for young children. Malnutrition in preschool children can manifest as either under nutrition or over nutrition, each associated with specific health risks (UNICEF, 2020). Undernourishment remains a pressing concern worldwide, especially in low- and middle-income countries, where it contributes to a high prevalence of stunting, wasting, and micronutrient deficiencies among children (Strydom et al., 2021). In Bangladesh, malnutrition among children under five is a critical public health issue, with reports indicating high rates of stunting and wasting, along with widespread micronutrient deficiencies (National Institute of Population Research and Training (NIPORT, 2018).

The World Health Organization (WHO) underscores the importance of a balanced and nutritious diet, considering it fundamental for health, well-being, and optimal growth in early childhood (World Health Organization, 2019). A healthy diet includes a variety of fruits, vegetables, legumes, nuts, and whole grains, providing essential macronutrients and micronutrients that meet the body's physiological needs (Cena& Calder, 2020). UNICEF emphasizes that proper nutrition, especially during the first 1,000 days—from pregnancy through the child's second birthday—is crucial for growth, brain development, and immunity (UNICEF, 2019).

Alarmingly, malnutrition continues to affect millions globally; in 2022, it was estimated that 149 million children under five were stunted, 45 million were wasted, and 37 million were overweight (World Health Organization, 2024). In Bangladesh alone, approximately 36% of children under five suffer from chronic malnutrition (stunting), and 14% are acutely malnourished (wasting) (NIPORT et al., 2016).

Dietary choices during early childhood are essential for health and development, and poor dietary patterns contribute to various health issues, including obesity and under nutrition. Malnutrition not only affects physical and cognitive development but also poses significant risks for school performance, future income potential, and national economic productivity (Dipasquale et al., 2020). Mothers play a pivotal role in shaping children's dietary habits, as they are typically the primary caregivers responsible for food choices and feeding practices (Adamo& Brett, 2013). Parental perceptions and behaviors, therefore, influence the quality of children's diets, impacting their health and nutritional outcomes (Tang et al., 2018). Studies suggest that mothers with higher nutritional knowledge are more likely to provide balanced diets, reducing malnutrition risks (Onyango et al., 2019).

In Bangladesh, cultural beliefs, economic limitations, and education levels significantly influence maternal dietary practices and perceptions regarding child nutrition (Islam et al., 2018). Despite efforts to enhance child nutrition through public health programs, knowledge gaps and misconceptions persist, emphasizing the need for targeted nutrition education initiatives (Kourlaba et al., 2009). Limited research on Bangladeshi mothers' perceptions of healthy diets for preschool children highlights a crucial gap, which this study aimed to address. The study sought to examine mothers' perceptions of a healthy diet for preschool-aged children in Bangladesh, factoring in socio-demographic characteristics such as education, occupation, and residential location. Insights from this research supposed to inform the development of effective, targeted nutrition education and policy strategies, ultimately promoting healthier diets and improved health outcomes among Bangladeshi preschool children.

Methodology

This study utilized a cross-sectional design to assess mothers' perceptions of a healthy diet for preschool children in Bangladesh, which was conducted for one year. The study participants included mothers of preschool-aged children attending the Pediatric Outpatient Department at Sher-e-Bangla Medical College Hospital (SBMCH) in Barishal, Bangladesh. A sample size of 132 participants was calculated using G*Power software, based on a significance level of $\alpha = 0.05$, power of 0.80, and an effect size of 0.25, which is commonly used in nursing research (Yu et al., 2020). The final sample size accounted for a 10% attrition rate, and eligible participants were recruited through convenience sampling. Inclusion criteria included mothers with children aged 3 to 6 years who were available and willing to participate, while mothers who did not consent or were unable to participate were excluded from the study.

Data were collected using a structured, self-administered questionnaire that was developed based on existing literature and expert opinion (Sowmya et al., 2022; Ballard, 2012; Zarnowiecki). The questionnaire consisted of two sections: a socio-demographic questionnaire with 13 items and a perception questionnaire with 25 items measuring mothers' views on a healthy diet, rated on a five-point Likert scale. A higher score indicated a more favorable perception of a healthy diet. Ethical approval was obtained from the Institutional Review Board (IRB) of SBMCH, and consent was secured from participants before data collection. Data analysis was conducted using SPSS version 26,

with descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential tests (t-test, ANOVA, and correlation) applied to examine relationships between socio-demographic factors and perceptions of a healthy diet.

Results

Table 1 provides an overview of the socio-demographic characteristics of the study participants, highlighting diverse backgrounds among the mothers surveyed (n=132). The mean age of participants was approximately 29.4 years (SD = 6.42), ranging from 18 to 53 years. The majority of participants identified as Muslim (75.8%), with smaller proportions identifying as Hindu (21.2%), Christian (2.3%), and Buddhist (0.8%). Regarding educational attainment, most mothers had achieved a secondary (31.8%) or higher secondary (30.3%) education level, while a smaller number held bachelor's (23.5%) or master's degrees (5.3%). In terms of occupation, a significant portion were housewives (65.9%), with others employed in government (25%) or private (6.8%) sectors. Fathers' education levels were generally higher, with 32.6% holding bachelor's degrees and 18.9% holding master's degrees; many fathers worked in private service (53%) or government jobs (18.9%).

The average monthly family income was approximately 31,519 BDT (SD = 17,222), with most families residing in urban areas (54.5%) and living in nuclear family structures (72%). The average household size was 4.73 members (SD = 1.78), and families typically had around two children (M = 1.87, SD = 0.785). Sources of health-related information for the mothers were varied, with healthcare providers being the most cited source (39.4%), followed by family or friends (28%) and social media (20.5%). This distribution of socio-demographic factors provides essential context for understanding the participants' perceptions and behaviors regarding preschool children's diets.

Table 1:Distribution of socio-demographic characteristics of the participants (n=132).

Variables	Categories	Frequency (n)	Percent (%)	Mean±SD
Age (years)	Range (18-53) years			29.4±6.424
Religion	Muslim	100	75.8 %	
	Hindu	28	21.2 %	
	Christian	3	2.3 %	
	Buddhist	1	.8%	
Mothers' Educational qualification	Primary	12	9.1%	
	Secondary	42	31.8%	
	Higher Secondary	40	30.3%	
	Bachelor	31	23.5%	
	Master	7	5.3%	
Mothers' Occupation	Govt. Service	33	25 %	
	Private Service	9	6.8%	
	Worker	1	.8%	
	Housewife	87	65.9%	
	Others	2	1.5%	
Fathers' Educational qualification	Primary	14	10.6 %	
	Secondary	25	18.9%	
	Higher Secondary	25	18.9%	
	Bachelor	43	32.6%	

	Master	25	18.9%	
Father's occupation	Govt. Service	25	18.9%	
	Private Service	70	53 %	
	Worker	12	9.1 %	
	Business	25	18.9%	
Monthly family income range (6000-90000) in Bangladeshi Taka				31518.94±17222.323
Residential area	Rural	60	45.5%	
	Urban	72	54.5%	
Type of Family	Nuclear	95	72%	
	Joint family	37	28%	
Number of siblings (1-5) per person				1.87±.785
Number of family members (3-12) per person				4.73±1.777
Source of information	Family/Friends	37	28%	
	Health care provider	52	39.4%	
	Television	11	8.3%	
	Social media	27	20.5%	
	Seminar	5	3.8%	

Table 2 data indicate a strong consensus on the importance of nutrition for children, with the majority of respondents agreeing or strongly agreeing on key aspects of a healthy diet. High ratings were observed for the significance of proper nutrition (3.52±0.586) and breastfeeding practices, with 62.9% strongly agreeing that newborns should be breastfed right after birth (3.55±0.680). Similarly, there was solid support for breastfeeding during the first two years (3.39±0.588) and weaning after six months (3.42±0.643). Moreover, essential foods like proteins (3.16±0.770) and fruits and vegetables (3.15±0.704) were recognized as crucial. However, there was moderate variation in responses concerning dairy products, where 16.7% disagreed with favoring low-fat options (2.69±0.966), indicating some mixed perceptions on this issue.

A similar pattern emerges with meal presentation and diversity, as 64.4% agreed that meals should be attractively presented (2.97±0.698), and 58.3% believed they should be varied and moderate (2.83±0.812). However, some misconceptions about dietary components and their effects were noted. For instance, only 40.9% agreed that a variety of foods supplies essential vitamins and minerals, while others were unsure (2.54±1.02). Additionally, while 65.2% agreed that a nutritious diet helps boost immunity, there were varying opinions about the expense and necessity of dietary adjustments, as seen with moderate agreement on the impact of organic food (2.73±0.995). Overall, with a total perception mean of 2.913±0.432, the responses reflect a generally positive attitude toward children's nutrition.

Table 2: Perception regarding healthy diet of children among the participants

Sl/No	**Item**	**Strongly disagree (0)**	**Disagree (1)**	**Neither agree/ Disagree (2)**	**Agree (3)**	**Strongly agree (4)**	**Mean ± SD**
		n (%)	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**
1.	Proper nutrition is an Important aspect of children life.	0(0%)	1(.8%)	3(2.3%)	55(41.7%)	73(55.3%)	3.52±.586

2.	Newborn should be Breast fed right after birth	0(0%)	4(3%)	2(1.5%)	43(32.6%)	83(62.9%)	3.55±.680
3.	Children should be breast fed for two initial years of life	0(0%)	1(.8%)	4(3%)	70(53%)	57(43.2%)	3.39±.588
4.	Weaning is necessary after six moth of age children	0(0%)	2(1.5%)	5(3.8%)	60(45.5%)	65(49.2%)	3.42±.643
5.	Protein (fish, meat, eggs, nuts and seeds) is important for your child.	0(0%)	4(3%)	18(13.6%)	63(47.7%)	47(35.6%)	3.16±.770
6.	I would like to favor the dairy products consuming low fat	0(0%)	22(16.7%)	22(16.7%)	63(47.7%)	25(18.9%)	2.69±.966
7.	It is important to give my child different types of vegetable and fruits	1(.8%)	3(2.3%)	9(6.8%)	81(61.4%)	38(28.8%)	3.15±.704
8.	Every meal of child should be present in attractive manner	1(.8%)	3(2.3%)	19(14.4%)	85(64.4%)	24(18.2%)	2.97±.698
9.	Every meal for my child should be varied and moderate.	1(.8%)	9(6.8%)	23(17.4%)	77(58.3%)	22(16.7%)	2.83±.812
10.	Eating a variety of foods each day probably gives you all the vitamins and minerals you need	3(2.3%)	21(15.9%)	32(24.2%)	54(40.9%)	22(16.7%)	2.54±1.022
11.	Choosing a healthy diet is a matter of knowing good and bad foods	1(.8%)	9(6.8%)	23(17.4%)	73(55.3%)	26(19.7%)	2.86±.836
12.	Starchy foods like bread, potatoes and rice make people fat	3(2.3%)	13(9.8%)	14(10.6%)	78(59.1)	24(18.2%)	2.81±.926
13.	High spicy food and fatty food is harmful for my child's health.	2(1.5%)	12(9.1%)	13(9.8%)	72(54.5%)	33(25%)	2.92±.922
14.	The things I give eat and drink are healthy, so there is no reason to make changes	0(0%)	31(23.5%)	69(52.3%)	69(52.3%)	14(10.6%)	2.60±.855
15.	I think it is important to eat two pieces of fruit and 200g of vegetables a day	0(0%)	10(7.6%)	30(22.7%)	78(59%)	14(10.6%)	2.73±.753
16.	I understand my child's nutritional needs depend on the age	0(0%)	7(5.3%)	23(17.4%)	86(65.2%)	16(12.1%)	2.84±.697
17.	Fruit and vegetable are very important in the practice of daily eating	1(.8%)	8(6.1%)	10(7.6)	79(59.8%)	34(25.8%)	3.04±.805
18.	I believed that healthy diet is expensive	20(15.2%)	31(23.5%)	14(10.6%)	56(42.4%)	11(8.3%)	2.05±1.268
19.	I believed that food coming from organic farming is healthier	3(2.3%)	16(12.1%)	21(15.9%)	65(49.2%)	27(20.5%)	2.73±.995
20.	Eating fresh and homemade food is healthy and essential for my child.	2(1.5%)	9(6.8%)	9(6.8%)	82(62.1%)	30(22.7%)	2.98±.842
21.	I think during planning and preparation of meal child involvement can increases the interest of eating healthy food.	1(.8%)	11(8.3%)	33(25%)	68(51.5%)	19(14.4%)	2.70±.845
22.	If my child's diet is less nutritious, his/her immune system may be weakened.	0(0%)	11(8.3%)	14(10.6%)	82(62.1%)	25(18.9%)	2.92±.792
23.	Inadequate nutrition may cause my child to be	0(0%)	10(7.6%)	19(14.4%)	82(62.1%)	21(15.9%)	2.86±.769

	underweight or overweight						
24.	High rich vegetables and fruits reduce the risk of obesity.	4(3%)	12(9.1%)	19(14.4%)	86(65.2%)	11(8.3%)	2.67±.871
25.	Healthy diet can protect my child from any disease.	1(.8%)	11(8.3%)	11(8.3%)	86(65.2%)	23(17.4%)	2.90±.809
Total mean of perception about healthy diet							72.84 ±10.823
Mean of total mean of perception regarding healthy diet							2.913±.432

The data in table 3 explores the relationship between socio-demographic characteristics and perceptions regarding a healthy diet, and reveals notable influences from parents' education and occupation, as well as monthly family income and residential area. Specifically, higher educational attainment of both mothers and fathers significantly enhances diet perception scores, with mothers holding a Master's degree associated with the highest mean perception score (80 ± 8.736, $p < 0.001$). Similarly, mothers' and fathers' occupations have a significant impact, with children of parents in government service scoring slightly higher in diet perception (mothers: 74.88 ± 11.475, $p = 0.046$; fathers: 75.76 ± 8.913, $p = 0.021$). Monthly family income also correlates significantly with diet perception ($p = 0.002$).

Residential area is another significant factor, with urban respondents reporting higher diet perception scores (75.06 ± 9.609) compared to rural respondents (70.18 ± 11.652, $p = 0.009$). However, several socio-demographic variables such as age, religion, family type, and source of dietary information did not show statistically significant associations with diet perception. Age showed no meaningful correlation ($p = 0.834$). Similarly, sources of dietary information, including family, friends, health providers, television, and social media, showed no significant differences in perception ($p = 0.265$).

Table 2: Relationship between socio-demographic characteristics and perception regarding healthy diet

Variables	**Categories**	**Perception**		
		Mean ± SD	**t/F/r**	**Sig(P)**
Age(years)	Range (18-53) years		-.018	.834
Religion	Muslim	72.79±11.192	7.980	.934
	Hindu	73±10.407		
	Christian	72±1.732		
	Buddhist	76		
Mothers' Education Level	Primary	61.08±13.055	6.315	**.000*** **
	Secondary	71.23±9.089		
	Higher Secondary	75.92±9.436		
	Bachelor degree	73.96±10.962		
	Master Degree	80±8.736		
Mothers' Occupation	Govt. Service	74.88±11.475	2.497	**.046***
	Private Service	73.67±7.665		
	Worker	42.00		
	Housewife	72.32 ±10.526		
	Others	73.50±3.536		
Fathers' Education Level	Primary	64.43±16.099	5.611	**.000*** **
	Secondary	69.56±8.540		
	Higher Secondary	70.88±7.849		
	Bachelor degree	77.07±10.509		

	Master Degree	75.52±8.666		
Fathers' Occupation	Govt. Service	75.76±8.913	3.358	**.021***
	Private Service	73.53±10.322		
	Worker	74.75±8.986		
	Businessman	67.08**±**13.035		
Monthly family income			.266**	**.002****
Residential Area	Rural	70.18±11.652	-2.633	**.009****
	Urban	75.06±9.609		
Types of family	Nuclear	73.08**±**12.258	.551	.583
	Joint family	72.22±5.769		
Number of children (1-5) person			-.072	.415
Number of family members (3-17) person			-.083	.345
Source of information	Family/friends	71.46±9.134	1.323	.265
	Healthcare provider	74.54±12.231		
	Television	67.27±10.041		
	Social media	74.04±10.793		
	Seminar	71.20±3.899		

Discussion

The socio-demographic characteristics of mothers in this study offer important understanding into their perceptions about a healthy diet for preschool children in Bangladesh. The diversity in participants' ages (mean = 29.4 years, SD = 6.42, range = 18-53 years) suggests a range of life experiences and maturity levels, which may influence maternal dietary decisions for young children (Moiseeva et al., 2020). Religion was predominantly Muslim (75.8%), with smaller groups identifying as Hindu, Christian, or Buddhist, reflecting the religious distribution typical in Bangladesh and potentially impacting food choices based on cultural or religious dietary practices (Alam & Naser, 2020).

The educational backgrounds of the mothers' show that most had completed secondary or higher secondary education (62.1%), while a smaller proportion held bachelor's or master's degrees. Studies indicate that higher maternal education is often associated with better knowledge of child nutrition and health practices, potentially affecting dietary quality in children (O'Brien et al., 2016). In comparison, fathers generally had higher educational qualifications, with 32.6% holding bachelor's degrees and 18.9% holding master's degrees, possibly enabling greater access to employment in private (53%) or government sectors (18.9%). This gender disparity in employment status may suggest that fathers play a crucial role in economic support, whereas the mothers' role in child nutrition may be influenced by cultural norms designating them as primary caregivers (Erzse et al., 2021).

Household income, averaging 31,519 BDT per month (SD = 17,222), is another significant factor in determining dietary options. Families with limited financial resources may face constraints in accessing diverse and nutrient-rich foods, leading to a preference for calorie-dense but less nutritious options (Giashuddin et al., 2005). Since 54.5% of families lived in urban areas, urbanization's influence on food choices is relevant, as urban households may have greater access to processed foods but also face challenges such as reduced time for meal preparation (Development Research Network, 2023). The predominant nuclear family structure (72%) may also impact dietary habits, as smaller household sizes can lead to greater reliance on convenient foods rather than traditional, home-cooked meals (Akhtar & Rahman, 2020).

The study also found that mothers rely on a variety of sources for health-related information, primarily healthcare providers (39.4%), family or friends (28%), and social media (20.5%). This aligns with research suggesting that healthcare providers are seen as credible sources for nutrition advice, while family and social media also play substantial roles in shaping dietary perceptions and practices (Rudin et al., 2024). This range of information sources

could lead to mixed messages about what constitutes a healthy diet, especially if the mothers receive conflicting information from less regulated social media platforms compared to professional healthcare advice.

The findings of this study revealed a broadly positive attitude among mothers in Bangladesh regarding the importance of a healthy diet for preschool children. Most respondents agreed or strongly agreed on key aspects of childhood nutrition, highlighting a strong consensus on its value.

This aligns with previous research emphasizing that maternal understanding of nutrition is essential for fostering early healthy eating habits in children (Vidya et al., 2023). High agreement scores on the significance of proper nutrition (mean = 3.52, SD = 0.586) underscore mothers' awareness about the fundamental role of nutrition in child development, echoing findings from other studies in similar socio-cultural settings (Hossain et al., 2024).

Breastfeeding received particularly strong support, with 62.9% of respondents strongly agreeing that breastfeeding should commence immediately after birth (mean = 3.55, SD = 0.680) and 64.4% endorsing breastfeeding during the first two years (mean = 3.39, SD = 0.588). These attitudes align with global health guidelines recommending exclusive breastfeeding during the first six months and continued breastfeeding alongside complementary foods up to two years of age or beyond (World Health Organization, 2018). The general support for breastfeeding among the respondents suggests effective public health messaging on its benefits in Bangladesh, although some previous studies have highlighted the need for ongoing education to address barriers to breastfeeding continuation (Islam and Miah, 2021).

A high level of importance was also placed on key food groups, particularly proteins (mean = 3.16, SD = 0.770) and fruits and vegetables (mean = 3.15, SD = 0.704), which mothers recognized as crucial for growth and overall health. This is encouraging, given that proteins and fresh produce are vital for nutrient intake and physical development (Hauta-Alus et al., 2017). However, there were mixed perceptions regarding dairy, with 16.7% of mothers disagreeing on the preference for low-fat options (mean = 2.69, SD = 0.966). This discrepancy may indicate confusion about dairy's role in a balanced diet, especially concerning fat content and its nutritional implications for young children (Dougkas et al., 2019). Such variation in responses suggests a need for targeted education that clarifies the benefits and limitations of different types of dairy products for children's diets.

Mothers' perspectives on meal presentation and dietary diversity were generally favorable, with 64.4% agreeing that meals should be attractively presented (mean = 2.97, SD = 0.698) and 58.3% supporting meal variety and moderation (mean = 2.83, SD = 0.812). Research indicates that engaging presentation and diverse food options can positively influence children's interest in food and willingness to try new items, which is particularly important for fostering healthy dietary habits (Nekitsing et al., 2018). Despite this, some misconceptions regarding dietary components persist. For example, only 40.9% agreed that a varied diet provides essential vitamins and minerals (mean = 2.54, SD = 1.02), suggesting limited understanding of dietary variety's role in fulfilling nutrient requirements. This gap indicates the need for educational programs emphasizing the benefits of food diversity for obtaining a balanced array of vitamins and minerals.

The perception that a nutritious diet boosts immunity was widely supported, with 65.2% of respondents agreeing on this benefit. However, opinions varied regarding the cost and necessity of certain dietary practices, such as organic food, where moderate agreement (mean = 2.73, SD = 0.995) reflected some uncertainty about its benefits and affordability. This finding aligns with existing research suggesting that while mothers may recognize the value of nutrition for health, financial considerations often impact food choices, especially in low-to-middle-income settings (Muntaha, 2021).

Overall, the positive attitudes observed among mothers toward child nutrition, with a mean perception score of 2.913 (SD = 0.432), indicate a foundational awareness of the importance of nutrition. Nonetheless, the presence of some misconceptions highlights the need for more nuanced and accessible educational resources. Programs designed to clarify the roles of various food groups and the practical aspects of maintaining a balanced diet could further empower mothers to make informed decisions for their children's health.

The study reveals significant relationships between various socio-demographic factors and mothers' perceptions of a healthy diet for preschool children in Bangladesh. First, a strong association was found between mothers' educational level and their understanding of a healthy diet ($F=6.315$, $p=.000$), aligning with research suggesting that higher maternal education often enhances nutritional knowledge and informed dietary choices (O'Brien et al., 2016; Sultan & Hossain, 2024). This result implies that education may empower mothers with the knowledge necessary for optimizing their children's diets, though some studies report no such association (Kourlaba et al., 2009).

Similarly, participants' occupation was significantly related to dietary perceptions (F=2.497, p=.046), consistent with findings that employed mothers may have better access to dietary resources and information (Smith et al., 2013). Employment may enable mothers to prioritize healthier foods, though other studies have found no significant link (Kourlaba et al., 2009).

Fathers' educational level also showed a significant influence (F=5.611, p=.000), suggesting that paternal education might enhance family health literacy and support for healthy dietary practices, indirectly improving mothers' perceptions (Kim et al., 2018). Additionally, fathers' occupation was associated with mothers' dietary perceptions (F=3.358, p=.021), as stable, well-paying jobs may support a nutritious family diet by enhancing household income (Bauer et al., 2012). However, some studies, such as Sultan & Hossain (2024), report inconsistent findings on this relationship.

Monthly family income positively correlated with perceptions of a healthy diet (r=.266, p=.002), indicating that higher income may improve access to diverse and nutritious foods, consistent with studies by Drewnowski& Specter (2004) and Sultan & Hossain (2024). Yet, some research suggests that family wealth does not always align with healthier dietary perceptions (De Lauzon-Guillain et al., 2012; Turner et al., 2006).

Residential area also significantly influenced dietary perceptions (t=2.633, p=.009), with urban mothers more likely to have access to nutritional resources and varied food options (Larson et al., 2009). This urban-rural divide suggests that urban settings may provide more educational resources on child nutrition.

In contrast, the study found no significant associations between mothers' perceptions and factors like age, religion, family structure, number of children, number of family members, or information sources. These findings suggest that while family dynamics and access to health information are important, they do not significantly affect dietary perceptions, aligning with studies by Langi et al., (2008). This consistency of nutritional messaging across different sources may help standardize public perceptions and practices regardless of socio-demographic variations.

Conclusion

The findings revealed a notable gap between mothers' general awareness of healthy eating habits and their specific understanding of the essential nutrients needed for optimal growth and development in preschool children. Although most mothers acknowledged the importance of including fruits and vegetables in their children's diets, many still held misconceptions, such as viewing sweets and fried snacks as suitable parts of a healthy diet. The study also showed that factors like educational level, income, and urban versus rural residence significantly affected mothers' dietary perceptions. These insights emphasize the need for focused educational programs and public health campaigns to bridge this knowledge gap and encourage healthier eating practices among mothers of preschool children in Bangladesh. Addressing these gaps can improve the nutritional status and overall health of preschoolers, supporting better growth and development outcomes.

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