

Fatherhood perception among fathers of infants aged 6–12 months in Bangladesh: a cross-sectional study

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Abstract

Background: Fathers' perceptions of their parenting roles may shape their participation in infant care, yet evidence from Bangladesh is limited.

Purpose: To assess fatherhood perception among fathers of infants aged 6–12 months and examine its association with selected sociodemographic and family-related variables.

Methods: A quantitative descriptive cross-sectional study was conducted from January 1 to June 30, 2026, among 120 fathers of infants aged 6–12 months attending the pediatric outpatient department and immunization clinic of a tertiary hospital in Savar, Dhaka, Bangladesh. Participants were recruited by convenience sampling. Data were collected using a structured questionnaire containing sociodemographic items and a 10-item Fatherhood Role Perception Scale scored on a 5-point Likert scale. Internal consistency was strong (Cronbach $\alpha=0.89$). Descriptive statistics and chi-square tests were used; $P<0.05$ was considered statistically significant.

Results: Among 120 fathers, 87 (72.5%) had good fatherhood perception, 26 (21.7%) had average perception, and 7 (5.8%) had poor perception. The mean perception score was 35.91 ± 3.353 . Father's age ($\chi^2=4.83$, $df=3$, $P=0.185$), education ($\chi^2=4.69$, $df=5$, $P=0.456$), family income ($\chi^2=1.85$, $df=4$, $P=0.763$), religion ($\chi^2=35.90$, $df=32$, $P=0.290$), occupation ($\chi^2=104.14$, $df=96$, $P=0.268$), family type ($\chi^2=55.76$, $df=48$, $P=0.206$), number of children ($\chi^2=43.46$, $df=32$, $P=0.085$), and infant sex ($\chi^2=23.12$, $df=16$, $P=0.111$) were not significantly associated with perception. Daily time spent with the infant was significantly associated with perception ($\chi^2=6.98$, $df=2$, $P=0.030$).

Conclusion: Most fathers reported good fatherhood perception. Because time spent with the infant was the only examined factor significantly associated with perception, pediatric and immunization services should actively facilitate fathers' participation in infant care. Longitudinal and intervention studies are needed to clarify directionality and causal mechanisms.

Keywords: Fatherhood; Fathers; Infant; Paternal involvement; Parenting

Key Message

Question: How do fathers of infants aged 6–12 months perceive fatherhood in Bangladesh? **Finding:** Among 120 fathers, 72.5% had good perception; daily time spent with the infant was the only examined factor significantly associated with perception. **Meaning:** Pediatric services should create opportunities for fathers to participate directly in infant care.

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I. Introduction

Fatherhood has increasingly been conceptualized as extending beyond economic provision to include emotional support, direct caregiving, and participation in children's development. Father involvement is relevant to father–child relationships and to children's social, emotional, and developmental experiences.^{1,2}

Early infancy is an important period for establishing parent–infant interaction. During the first year after birth, fathers' perceptions of their roles may evolve as they gain experience, negotiate expectations with partners, and participate in caregiving.³ Father involvement is influenced by social, cultural, relational, and individual factors, and systematic evidence indicates that determinants differ across contexts.⁴

Contemporary research also suggests that fatherhood is shaped by psychosocial processes such as self-efficacy, marital satisfaction, social support, and broader expectations of intensive parenting.⁵ Cultural norms may continue to position fathers primarily as providers, while caregiving expectations are gradually expanding.⁶ In low- and middle-income countries, the role of fathers in early childhood development is increasingly recognized, although implementation of father-inclusive approaches remains uneven.⁷

Direct father–child interaction is particularly relevant to understanding fatherhood perception. Research has linked paternal involvement with sensitive caregiving and with aspects of children's emotional and social development.^{8–10} Studies also emphasize the importance of supportive healthcare environments and professional communication in facilitating fathers' engagement.¹¹

Despite this growing literature, relatively little evidence specifically describes fatherhood perception among fathers of infants aged 6–12 months in Bangladesh. The present study therefore assessed fatherhood perception among fathers attending pediatric outpatient and immunization services and examined associations with selected sociodemographic and family-related variables. The findings may help inform father-inclusive, family-centered pediatric nursing and health education.

II. Methods

Study design and setting

A quantitative descriptive cross-sectional design was used. The study was conducted in the Pediatric Outpatient Department and Immunization Clinic of Enam Medical College & Hospital, a private tertiary-level hospital in Savar, Dhaka, Bangladesh. Data collection occurred from January 1 to June 30, 2026.

Participants and eligibility

The target population was fathers of infants aged 6–12 months. The accessible population comprised fathers of infants in this age range who attended the selected pediatric outpatient or immunization services during the study period; the accessible population was estimated at approximately 150 fathers. Fathers were eligible if they had an infant aged 6–12 months, were available during data collection, could read and understand the questionnaire, and provided informed consent. Fathers of infants with serious illness, those unavailable during data collection, and those unwilling to participate were excluded.

Sample size and sampling

Sample size was estimated using G*Power for a correlation analysis with an assumed effect size of $r=0.30$, $\alpha=0.05$, and power=0.80, yielding a required sample of 84. After a 30% nonresponse adjustment (26 participants), the calculated sample was 110. For operational feasibility, the final sample was increased to 120. Convenience sampling was used, and eligible fathers were recruited consecutively until 120 participants were enrolled.

Data collection instrument

A structured questionnaire contained 2 sections. Section A collected age, religion, education, occupation, monthly family income, family type, daily time spent with the infant, number of children, infant age, and infant sex. Section B was a 10-item Fatherhood Role Perception Scale. Each item used a 5-point Likert response from 1 (strongly disagree) to 5 (strongly agree). One negatively worded item concerning work-schedule limitations was reverse scored. Total scores ranged from 10 to 50; scores of 34–50 indicated good perception, 18–33 average perception, and 10–17 poor perception.

The instrument was developed from the literature and the study's conceptual framework. Content validity was assessed by 3 nursing experts in pediatric nursing and 1 pediatrician, and revisions were made according to their recommendations. A pilot study involving 12 fathers was conducted to assess feasibility, clarity, and reliability; pilot participants were not included in the final sample. Internal consistency of the perception scale was strong (Cronbach $\alpha=0.89$).

Data collection procedure

After ethical clearance and permission from the relevant authorities, eligible fathers were approached in the selected clinical areas. The study purpose and procedures were explained, informed consent was obtained, and participants completed the questionnaire in a quiet setting. Completed questionnaires were checked for completeness and stored securely to preserve confidentiality.

Ethical considerations

Ethical approval was obtained from the Institutional Ethical Review Board of Enam Medical College, Savar, Dhaka, and permission to collect data was obtained from the relevant hospital authorities. Written informed consent was obtained from all participants. Participation was voluntary, confidentiality and anonymity were maintained, and participants could decline participation. The thesis documentation does not provide a specific ethics approval number; this should be inserted on the title page or in this section if available before submission.

Statistical analysis

Data were summarized using frequencies and percentages for categorical variables and mean±standard deviation for the perception score. Chi-square tests of independence were used to examine associations between categorical participant characteristics and perception category. Statistical significance was set at $P < 0.05$. Because this was a cross-sectional study, statistically significant associations were interpreted as associations rather than causal effects.

III. Results

Participant characteristics

The study included 120 fathers. The largest age group was 25–29 years (38, 31.7%), followed by 30–34 years (33, 27.5%) and 21–24 years (32, 26.7%); 17 (14.2%) were older than 35 years. Most fathers were Muslim (101, 84.2%). Secondary education was the most common educational level (41, 34.2%). Government employment was the largest occupational category (26, 21.7%).

For monthly family income, 31 fathers (25.8%) reported more than 60,000 Bangladeshi taka, while 26 (21.7%) reported 51,000–60,000 taka. Nuclear families accounted for 62 (51.7%) participants. Most fathers (65, 54.2%) reported spending 1–3 hours per day with the infant. Fifty-one fathers (42.5%) had two children, 50 (41.7%) had one child, and 19 (15.8%) had more than two children. Forty-four infants (36.7%) were aged 10–12 months, while 38 (31.7%) were aged 6 months and 38 (31.7%) were aged 7–9 months. The infant sex distribution was 65 (54.2%) male and 55 (45.8%) female.

Characteristic	n	%
Age 21–24 years	32	26.7
Age 25–29 years	38	31.7
Age 30–34 years	33	27.5
Age >35 years	17	14.2
Muslim	101	84.2
Hindu	12	10.0
Christian	7	5.8
Illiterate	14	11.7
Primary	25	20.8
Secondary	41	34.2
Higher secondary	18	15.0
Graduate	13	10.8
Postgraduate	9	7.5
Government employee	26	21.7
Farmer	22	18.3
Private employee	19	15.8
Unemployed	16	13.3
Day laborer	15	12.5
Business	11	9.2
Professional	11	9.2
<30,000 taka	25	20.8
31,000–40,000	18	15.0
41,000–50,000	20	16.7
51,000–60,000	26	21.7
>60,000	31	25.8
Nuclear	62	51.7
Joint	38	31.7
Extended	14	11.7
Single-parent	6	5.0

<1 hour/day	32	26.7
1–3 hours/day	65	54.2
>3 hours/day	23	19.2
One child	50	41.7
Two children	51	42.5
>2 children	19	15.8
6 months	38	31.7
7–9 months	38	31.7
10–12 months	44	36.7
Male infant	65	54.2
Female infant	55	45.8

Table 1. Sociodemographic and infant characteristics of participants (N=120).

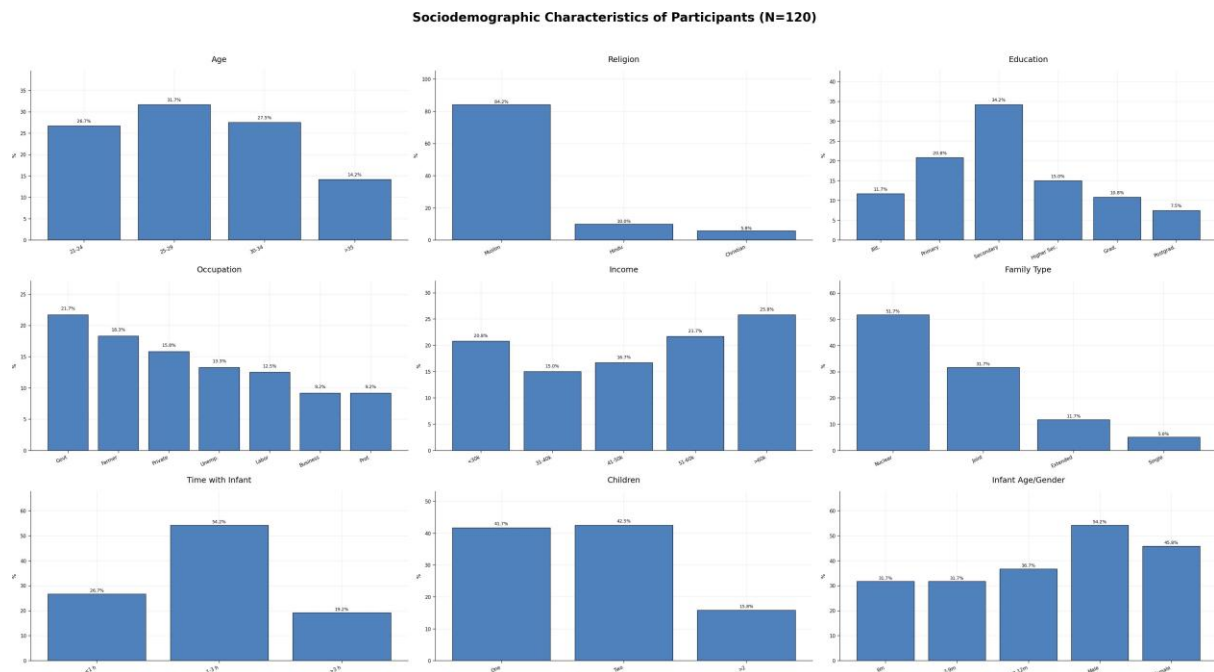


Figure 1: Distribution Socio-demographic Characteristic group (N = 120).

Fatherhood perception

The mean Fatherhood Role Perception Scale score was 35.91 ± 3.353 . Overall, 87 fathers (72.5%) had good perception, 26 (21.7%) had average perception, and 7 (5.8%) had poor perception.

Fatherhood perception category	n	%
Poor (10–17)	7	5.8
Average (18–33)	26	21.7
Good (34–50)	87	72.5
Total	120	100.0

Table 2. Distribution of fatherhood perception among fathers (N=120). Mean±SD score= 35.91 ± 3.353 .

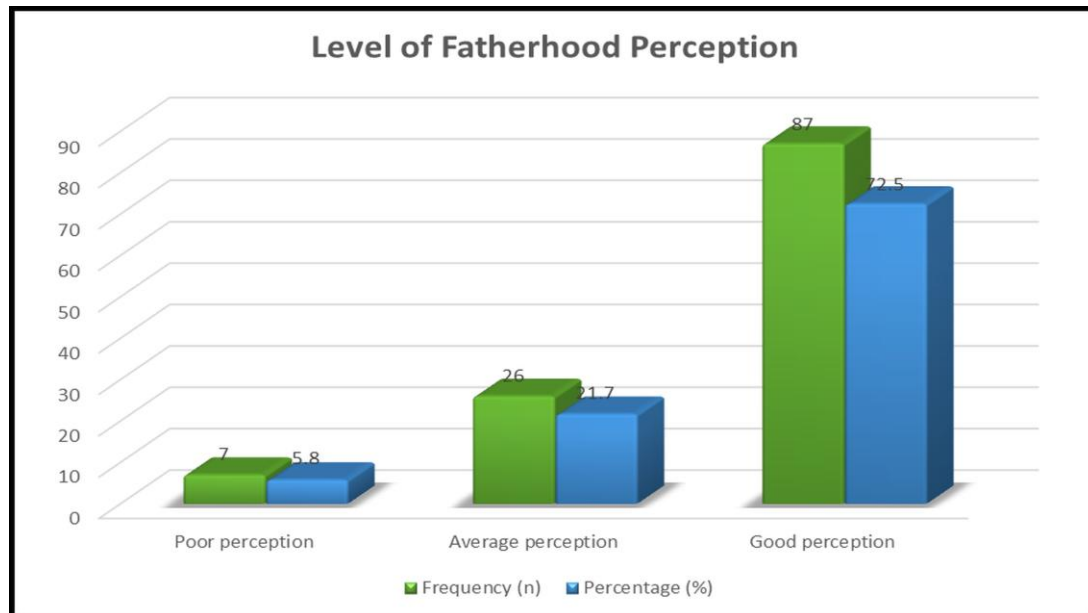


Figure 2: Distribution of Level of Fatherhood Perception among Fathers (N = 120).

Associations with fatherhood perception

Fatherhood perception was not significantly associated with father's age, education, family monthly income, religion, occupation, family type, number of children, or infant sex. Daily time spent with the infant was significantly associated with perception category ($\chi^2=6.98$, $df=2$, $P=0.030$). Thus, the amount of time fathers reported spending with their infants was the only examined factor showing a statistically significant relationship with perception category.

Variable	χ^2	df	P value
Father's age	4.83	3	0.185
Father's education	4.69	5	0.456
Family monthly income	1.85	4	0.763
Daily time spent with infant (categorical)	6.98	2	0.030
Father's religion	35.90	32	0.290
Father's occupation	104.14	96	0.268
Family type	55.76	48	0.206
Number of children	43.46	32	0.085
Infant sex	23.12	16	0.111

Table 3. Associations between selected characteristics and fatherhood perception (N=120). $P<0.05$ was considered statistically significant.

IV. Discussion

The present study found that 72.5% of fathers had good fatherhood perception, with a mean score of 35.91 ± 3.353 . This suggests that most fathers in this clinical sample viewed their roles and caregiving responsibilities favorably. The finding is consistent with literature describing a broadening of fatherhood from a provider-centered role toward greater emotional and caregiving involvement.^{1,3,6}

The finding also aligns with evidence that father involvement is multidimensional and includes direct caregiving, emotional interaction, and relationship-building rather than simple physical presence.^{4,8} Contemporary fatherhood may therefore be understood as an evolving process in which fathers acquire practical experience and negotiate family expectations.³

Daily time spent with the infant was the only examined characteristic significantly associated with fatherhood perception. Fathers who reported greater time with their infants were more likely to have higher perception categories. This pattern is consistent with evidence emphasizing direct engagement as an important component of father involvement and with research showing that caregiving experiences may be related to fathers' developing understanding of their parenting roles.^{4,8,10} However, because the present study was cross-sectional, the direction of this association cannot be established. Fathers with more positive perceptions may choose to spend more time with their infants, while greater involvement may also strengthen their perceptions.

In contrast, age, education, income, religion, occupation, family type, number of children, and infant sex were not significantly associated with perception. These findings differ from studies in which demographic,

socioeconomic, psychosocial, or cultural factors have been associated with paternal involvement.^{5,6,12} The lack of statistically significant associations in this sample may reflect the relatively small sample, the convenience sampling approach, uneven distribution across categories, or the influence of unmeasured factors such as partner support, self-efficacy, workplace conditions, and cultural expectations. Therefore, the absence of statistical association should not be interpreted as evidence that these factors are unimportant in fatherhood more broadly.

The practical implication is that pediatric and immunization services can use routine encounters as opportunities to engage fathers directly. Father-inclusive communication, practical teaching about infant care, and opportunities for fathers to participate during health visits may help translate favorable perceptions into observable caregiving involvement. Such approaches are consistent with family-centered care and with evidence that healthcare professionals can influence coparenting and parental engagement.¹¹

The study has several strengths, including a clearly defined infant age range, a focused measurement of fatherhood perception, expert content validation, and strong internal consistency of the perception scale (Cronbach $\alpha=0.89$). Important limitations should also be considered. The study was conducted in selected healthcare settings using convenience sampling, so the findings may not generalize to fathers in the wider Bangladeshi population. The sample was relatively small, and some categorical analyses contained many degrees of freedom, which may indicate sparse cells and reduce statistical power or stability. The questionnaire was self-reported and may be affected by social desirability. Finally, the cross-sectional design precludes causal inference, and potentially important psychosocial and cultural variables were not measured.

V. Conclusion

Most fathers of infants aged 6–12 months in this Bangladeshi clinical sample reported good fatherhood perception. Daily time spent with the infant was significantly associated with perception category, whereas the other examined sociodemographic and family-related variables were not. The findings support father-inclusive approaches within pediatric and immunization services, with emphasis on opportunities for direct father–infant interaction and practical caregiving participation. Larger, more diverse, and longitudinal studies are needed to examine the determinants and direction of the relationship between paternal involvement and fatherhood perception.

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Use of artificial intelligence: Generative artificial intelligence tools were used during manuscript preparation to improve language, structure, and readability. The authors reviewed the manuscript and remain responsible for the accuracy, integrity, and originality of the content and data. No AI tool was used to generate or interpret the study data.

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Figure Legends

No figures are included in the blinded manuscript. A graphical abstract is optional under the journal's current instructions.