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Original Research Article

Factors associated with postnatal care seeking behavior among mothers of infants

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ABSTRACT

Background: Postnatal period is a critical phase in the lives of mothers and newborn babies. Lack of appropriate care during this period could result in significant ill health and even death. Hence the study was carried out to identify the factors associated with postnatal care seeking behavior among mothers of infants.
Methods: This descriptive type of cross-sectional study was conducted at EPI centers of Sadar upazilla of Magura district from January to December 2023 among purposively selected 384 rural women of reproductive age who had at least one living child aged between 6 weeks to 10 months after obtaining ethical clearance from ethical review committee (ERC) of Dhaka Medical College.
Results: The average age of respondents was 24.28±3.52 years, with 84.1% aged 18-27 years. Among mothers, 59.6% completed primary education, while 10.2% reached secondary or higher education levels. Most (91.1%) were housewives, with 57% residing in joint families. While most of participants received ANC, only 35.5% sought PNC. The primary reasons for avoiding PNC included lack of awareness (28.9%) and financial constraints (23.7%). Significant associations were found between PNC utilization and mothers' education, delivery complications, and decision-making authority within the family ($p<0.05$).
Conclusions: To improve utilization of postnatal care, national and local level action plan should be introduced to promote postnatal care delivery. PNC awareness campaign, motivation and economic empowerment programs for targeting mothers from the impoverished area need to be implemented.

Keywords: Antenatal care, Healthcare utilization, Maternal health, Postnatal care, Rural healthcare

INTRODUCTION

The postnatal period is the period begins immediately after the birth of the baby and continues up to next six weeks (42 days) after birth.[1] The World Health Organization (WHO) recommends that all mothers and newborns receive postnatal care within the first 24 hours after birth, followed by at least three additional postnatal checkups within the first 42 days postpartum. Now in addition to PNC with two full assessments on the 1st day, three additional visits are recommended: day 3(48-72 hours), between day 7-14 days and 6 weeks after birth.[2] Despite these recommendations, globally about 40% women do not receive postnatal visits and only less than half of women receive care within 24 hours of delivery.[3]

Postnatal care (PNC) plays a vital role in ensuring safe motherhood.[4] Postnatal check-ups offer a chance to

identify and address complications from delivery, as well as to provide guidance to mothers on how to care for themselves and their newborns.[5] A significant number of maternal and neonatal deaths occur within the first 24 hours after childbirth.[6] Since the last two decades remarkable achievements in preventing maternal mortality, with 37% reduction in maternal deaths between the years 2000 to 2017.[6]

Although having achievement in preventing maternal mortality globally near about 287,000 women die due to complications related to pregnancy and most of them occurred in developing countries including Bangladesh.[6] The main cause of this situation is that majority of pregnant mother seek out medical advices during the intrauterine period of the child, but fail to secure medical services for herself along with the child after delivery.[7] So, the postnatal period becomes more complicated. Lack of routine postnatal check-ups can significantly hind safe motherhood, leading to complications such as postpartum hemorrhage, eclampsia, puerperal genital infections, thromboembolic disorders, breastfeeding difficulties and psychological issues like baby blues.[8] Due to many socioeconomic and cultural reasons, such as the distance to travel and the cost of attending, most of the rural mothers avoid going facilities and give birth at home. For this, women are being disrobed from government health services that results maternal and neonatal mortality and morbidity.[9]

In line with the SDGs and the global strategy for women's, children's and adolescent's health and in accordance with a human rights-based approach, postnatal care efforts must expand beyond coverage and survival alone to include quality of care.[10] The guideline of WHO aims to improve the quality of essential, routine postnatal care for women and newborns with the ultimate goal of improving maternal and newborn health and well-being. It acknowledges a positive postnatal experience as a crucial outcome for all women giving birth, providing a foundation for better short-term and long-term health and well-being.[6]

The WHO report of 2015 highlights that women who are impoverished, less educated and living in rural areas have lower access to health interventions and experience poorer health outcomes compared to their more advantaged counterparts.

A systematic review and meta-analysis on disparities in postnatal care in low- and middle-income countries found significant differences in the utilization of postnatal care based on socioeconomic status and geographic factors.[11]

Objective

The objective of this study was to assess the factors associated with postnatal care seeking behavior among mothers of infants.

METHODS

This descriptive cross-sectional study was conducted at EPI centers of Sadar upazilla of Magura district from January to December 2023. Data were collected between July and October 2023 at EPI centers in four selected unions (Jogdol, Chaulia, Atharokhada, and Hazipur) in Sadar upazilla, Magura District. The study targeted mothers attending these centers with at least one living child aged 6 weeks to 10 months and aged 18 years or above. Severely ill mothers were excluded. Using convenience sampling, the sample size was calculated as 384 based on a 52% prevalence rate of postnatal care from medically trained providers. Data were gathered through face-to-face interviews with a pre-tested, semi-structured questionnaire. Quality control measures included data checks for completeness, consistency, and relevancy, followed by data cleaning, editing and entry for analysis. Statistical analysis was performed with descriptive and inferential statistics (chi-square test and Fisher's exact test). Ethical approval was granted by the Dhaka Medical College ethical review committee (memo no. ERC-DMC/ECC/2023/67), and permission was obtained from local health authorities. Participants received information on the study's purpose and provided written consent, with assurances of privacy, confidentiality and the right to withdraw without consequences.

RESULTS

Regarding age of the respondents, it was observed that, highest number 323 (84.1%) of the respondents were in age group 18-27 years, while 61 (15.9%) were in age group 28-40 years. The mean age was 24.28 years with standard deviation (SD) of 3.52 years (Table 1).

Table 1: Distribution of the respondents by age (n=384).

Age (years)	Frequency	Percentage
18-27	323	84.1
28-40	61	15.9
Total	384	100
Mean±SD	24.28±3.52	

Table 2: Distribution of the respondents by educational qualification.

Level of education	Frequency	Percentage
Illiterate	32	8.30
Primary	229	59.60
SSC	84	21.90
HSC	24	6.30
Graduate and above	15	3.90
Total	384	100

Regarding the level of education of the respondents, it was observed that the highest 229 (59.60%) respondents had primary level of education. Then, 84 (21.90%) of the

respondents completed secondary level of education. The number of illiterate respondents was 32 (8.30%) and 15 (3.90%) respondents completed graduation or above (Table 2).

Table 3: Distribution of the respondents by their occupation.

Occupation of respondents	Frequency	Percentage
Service holder	15	3.90
Business	7	1.8
Student	12	3.1
Housewife	350	91.1
Total	384	100

Regarding occupation of the respondents, it was observed that, majority 350 (91.1%) of the respondents were housewives, 15 (3.90%) service holder, 12 (3.1%) were students and business 7 (1.8%) (Table 3).

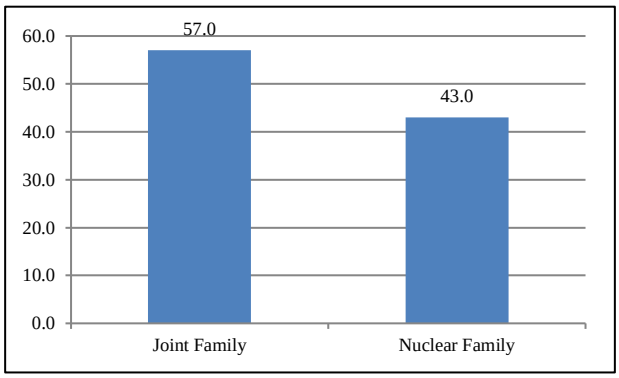

Figure I: Distribution of the respondents by type of family.

There were two categories for the type of family structure: joint family and nuclear family. In the joint family category, there were 219 individuals, making up 57% of the total sample. In the Nuclear family category, there were 165 individuals, constituting 43% of the total sample (Figure 1).

Table 4: Distribution of the women by ANC use.

Antenatal care	Frequency	Percent
Yes	352	91.7
No	32	8.3
Total	384	100

This data illustrates the distribution of participants according to antenatal care provision, with the majority of individuals (91.7%) utilized antenatal care, while the rest (8.3%) did not utilize antenatal care (Table 4).

This data illustrates the distribution of delivery methods within respondents, with the majority of individuals 255 (66.4%) had a normal delivery, while the rest 129 (33.6%) had caesarean delivery (Table 5).

Table 5: Distribution of the respondents by mode of delivery.

Mode of delivery	Frequency	Percent
Normal delivery	255	66.4
Caesarean delivery	129	33.6
Total	384	100

Table 6: Distribution of the respondents by postnatal complications and postnatal care use.

Postnatal complication	Frequency	Percentage
Yes	163	42.4
No	221	57.6
Total	384	100
Postnatal care use		
Yes	136	35.5
No	27	6.9
Total	163	42.4

Table 6 shows that among 384 mothers 163 (42.4 %) had postnatal complications and 221 (57.6%) did not have postnatal complications. Table also showed that (163-136=27), 27 respondents developed PNC complications but did not take PNC because some of them did not know about postnatal care, others had financial cause, familiar problem and also no one accompany them (Table 6).

Table 7: Distribution of the respondents by the reasons for not taking postnatal care.

Cause of not taking postnatal care	Frequency	Percentage
I did not know postnatal care exists	111	28.9
Financial cause	91	23.7
No one to accompany	26	6.8
Familiar cause	20	5.2
Total	248	64.5

Most prevalent cause of not taking postnatal care was not having the knowledge about postnatal care (28.9%). There were also more causes including financial cause (23.7%), familiar cause (5.2%), no one to accompany (6.8%) (Table 7).

Mothers who did not take postnatal care were mostly illiterate (71.9%), only primary pass (69.4%) or SSC pass (63.1%). Same were true for husband's level of education.

It was observed that higher level of education was significantly associated with postnatal care seeking behavior (p=0.001) (Table 8).

Table 8: Association between postnatal care seeking behaviour with educational qualification of the respondents.

Variables	Postnatal care		Total	Statistical test
	Yes (%)	No (%)		
Educational qualification of mother				
Illiterate	9 (28.1)	23 (71.9)	32	Fisher's Exact test χ^2=20.62, df=4 p=0.001
Primary	70 (30.7)	159 (69.4)	229	
SSC	31 (36.9)	53 (63.1)	84	
HSC	14 (58.3)	10 (41.7)	24	
Graduation and above	12 (80)	3 (20)	15	
Total	136	248	384	

df- degree of freedom, χ^2= Chi-square, p<0.05= statistically significant

Table 9: Association between postnatal care seeking behaviour and postnatal complications.

Variables	Postnatal care		Total	Statistical test
	Yes (%)	No (%)		
Postnatal complications				
Yes	135 (82.8)	29 (17.3)	163	Chi square test χ^2=277.38, df=1 P=0.001
No	1 (0.5)	219 (99.5)	221	
Total	136	248	384	

df- degree of freedom, χ^2= Chi-square, p<0.05= statistically significant

About 82.8% mothers received postnatal care those had postnatal complications. A significant association was found between postnatal care seeking behavior and postnatal complications (Table 9).

DISCUSSION

In the current study the average age of the participants was 24.28±3.52 years. Among those, age range from 18 to 27 were most prevalent (84.1%). This aligns closely with the findings of Sheba et al, indicating that early motherhood is common in Bangladesh.[12] Early marriage and childbearing may limit women's educational and economic opportunities, affecting their healthcare-seeking behaviors. Notably, 59.6% of the participants completed primary education, higher than the findings by Mithun et al, who reported 18.9% primary and 71.4% secondary or higher education completion.[13] This difference could be due to cultural variations and study timing. Educational limitations in rural Bangladesh contribute to limited participation in social and economic domains, impacting decision-making regarding health and family planning. The similarity in literacy levels between mothers and husbands, except at higher education levels, suggests the need for more educational programs targeting both genders to foster joint decision-making in healthcare.

The study revealed that most mothers had children aged 6 weeks to 3 months, reflecting typical patterns of early postpartum care needs. A significant proportion of participants (91.1%) were housewives, consistent with the findings of Mithun et al, where 70.4% of mothers were not engaged in formal employment.[13] Living in joint family systems was common among 57% of the participants, potentially providing added family support but also contributing to household limitations on healthcare decision-making. The average family income of participants was moderate, which reflects the modest economic conditions prevalent in rural Bangladesh. The sociodemographic attributes observed in this study align closely with Shahjahan et al, and underscore the influence of financial and household dynamics on healthcare access in rural settings.[14] Studies like Ayele et al, have also shown that smaller family sizes are linked to better healthcare access, as fewer financial and caregiving responsibilities burden mothers, allowing more time and resources for self-care.[15]

The study found that 91.7% of mothers received antenatal care, with higher percentage attending 1-3 visits, demonstrating high ANC utilization. However, only 35.5% sought postnatal care, highlighting a considerable gap in PNC use, similar to the study by Shahjahan et al, where ANC was used by 62.5% of mothers but only 17.8% sought PNC.[14] This disparity might reflect societal attitudes that prioritize care during pregnancy over postpartum, underscoring the need for increased awareness of PNC importance. Improved ANC utilization could result from better communication and motivational programs in rural areas, but similar efforts seem to lack for PNC, making it essential to address the knowledge and motivational gap. Tesfahun et al, supported this finding, noting that ANC use is positively associated with PNC utilization, further indicating a need for continuity in maternal healthcare beyond pregnancy.[16]

Most participants (66.4%) had normal deliveries, with prolonged labor being the most common complication. This aligns with other findings, such as Islam et al, where 58% of women received ANC primarily from doctors.[17] In

this study, only few participants consulted doctors, suggesting that geographical, financial or availability constraints might restrict access to qualified medical professionals. A correlation was observed between ANC and PNC; women who received more ANC were more likely to seek PNC, a trend also noted by Shahjahan et al and Tesfahun et al, supporting the notion that consistent healthcare use builds awareness and trust in formal medical systems.[14,16]

Among the respondents, 42.4% experienced postnatal complications, with most seeking care within the first week of postpartum. Lack of awareness was the leading reason for not seeking PNC (28.9%), followed by financial issues (23.7%), family issues (2.6%), and lack of companionship (6.8%). Similar barriers were observed by Wudineh et al and Arunda et al, who found that transportation challenges, rural residence, and low awareness impeded PNC utilization.[18,19] The leading reasons for seeking PNC in this study included fever. This suggests a need for education about common postpartum complications and their implications for maternal health.

Educational qualifications and husband's occupation significantly influenced PNC utilization, with a p value of 0.001 for both. Mothers who underwent caesarean sections were also more likely to seek PNC, likely due to increased follow-up requirements, as supported by Tiruneh et al.[20] These findings underscore that higher education and stable income are positively associated with better healthcare-seeking behaviours, a pattern observed across maternal health studies, including those by Tesfahun et al and Rocaztle et al, who noted that educated mothers were more aware of healthcare services and showed greater confidence in accessing them.[16,21] Women who were aware of postnatal risks were more likely to seek care, as understanding postpartum dangers seems to increase PNC utilization.[20] In this study, having a clear decision-maker also positively impacted PNC seeking, demonstrating the value of supportive family structures and empowered maternal roles.

Strengths of this study include efficient data collection, as most mothers readily provided consent and the ability to gather data across multiple variables simultaneously. However, limitations such as recall and selection bias may affect the reliability of associations, as participants may underreport or inaccurately recall healthcare experiences. Cultural, social, and economic barriers continue to deter PNC use, including limited family support and inadequate knowledge about PNC benefits. Findings indicate that low education levels, lower income, and the husband's occupation affect PNC access, along with lack of awareness and limited family involvement in healthcare decisions.

This study has several limitations. The purposive selection of the study area and sampling method may limit the generalizability of findings and introduce selection bias. Data collection relied on self-reported information such as income, age and care frequency, raising concerns about validity and recall bias, especially as responses were from mothers who delivered within the past 10 months. Additionally, limited privacy and time constraints during data collection may have hindered the accuracy of responses. These factors suggest caution in interpreting the results.

CONCLUSION

This study highlights key aspects of maternal healthcare, particularly antenatal and postnatal care utilization. While most women accessed antenatal care, a majority attended three or fewer visits. A positive association was found between frequent antenatal visits and postnatal care utilization. Many women experienced postnatal complications, with fever being the most common reason for seeking care within the first week postpartum. Education levels, husband's occupation, and caesarean delivery were significantly associated with increased postnatal care use. Awareness of postnatal risks also positively influenced care-seeking behaviour. These findings underscore the importance of targeted awareness and support to improve maternal health outcomes.

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