

THE AWARENESS AND PRACTICES OF POSTNATAL CARE IN MOTHERS DELIVERED AT A TERTIARY CARE CENTRE : A HOSPITAL-BASED STUDY

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ABSTRACT

Introduction: The postpartum period is the most crucial phase in a mother's life. The unawareness of postpartum care can have disastrous consequences on both the mother and newborn. This study helps in the identification of gaps in postpartum care by studying awareness and practices in our postnatal women. **Methods:** This cross-sectional study was conducted at a tertiary care hospital in Delhi, India between July 2022 to May 2023. Ethical clearance was obtained. About 200 postnatal women were enrolled in the postnatal clinic during their follow-up visit at six weeks of delivery. After informed consent, the details were collected as per the predesigned proforma. The awareness and practices on breastfeeding, family planning, and postpartum health were recorded. **Results:** Among 200 women, the majority were in the age group of 25 to 30 years. About 51% were multipara and 33.5% were graduates and most belonged to upper lower socioeconomic class. About 86.5% were aware of exclusive breastfeeding practice and 81.5% had awareness of family planning methods. About 73% of our participants were aware of postnatal danger signs. The prevalence of anemia was 70.4% and 56.5% were noncompliant with iron and calcium supplements. **Conclusion:** Postnatal care constitutes an indispensable component of maternal health care. The high prevalence of postpartum anemia and non-compliance to iron and calcium intake among our postnatal mothers calls for an urgent need to emphasize counseling regarding the diet as well as iron and calcium prophylaxis during the discharge of postnatal women.

Keywords: Postnatal women, Postnatal care, Tertiary care center, Awareness

Introduction:

The postnatal period is the most critical phase in a mother's life and if uncared for can result in complications to both mother as well as baby. It is defined as the period immediately after the birth of a baby till 6 weeks or 42 days (World Health Organization: Postpartum Care of the Mother and Newborn, 1998). The concept of postpartum care as a continuum of interpregnancy care has recently been recognized for its role in maternal and neonatal health. Conventionally, the first postnatal visit is scheduled at six weeks in low-risk women. World Health Organisation suggests four health check-ups after delivery at 6 hours, 6 days, 6 weeks, and 6 months to ensure the physical and mental well-being of the postnatal mothers (Memchoubi et al., 2017). Postnatal care has been globally recognized as a crucial phase with both current and future implications for the health of the mother and the baby. It is a golden opportunity for the health care provider to promote exclusive breastfeeding, proper feeding practices, immunization in babies, and developmental assessment. It also helps in the optimization of a mother's health by counselling on diet, exercise, personal hygiene, and weight management. Early identification and timely interventions are crucial in the prevention of maternal and neonatal complications (WHO Technical Consultation on Postpartum and Postnatal Care, 2010).

The maternal mortality ratio has globally reduced by 44% over the past 25 years. As per 2015 estimate, India accounts for about 15% of the total global maternal deaths (Lancet, 2015). In Spite of WHO recommendations on postnatal visits, many of the women do not seek any postnatal consultation unless there is any complication. The various influencing factors for postnatal women not seeking health visits include unawareness of the importance of postnatal care, low status of education, low socioeconomic status, lack of counseling on postnatal care during discharge, inaccessibility of health care facilities, prioritizing the family and the newborn needs above the mother's health, socio-cultural beliefs and practices resulting in maternal confinement at home after delivery (Bryant et al., 2006 ; Mrisho et al., 2008).

The knowledge and practice of personal hygiene, infection prevention, nutritious diet, and postnatal exercise help in the early recovery of postnatal women. Health education and counseling play a vital role in maternal as well as newborn health care (Missiriya, 2016). Inadequate postnatal care is the missed opportunity to promote the physical, mental, and sexual health of the mother which can have detrimental effect on the mother, baby, and entire family. Our study has focussed on the identification of gaps in postpartum care by studying awareness and practices in our postnatal women. This helps us in improving the quality of care by effective counseling of women and their families and further helps in planning interventions to meet the long-term needs of mother and baby.

Methods:

This cross-sectional study was conducted in the Department of Obstetrics and Gynecology, Lady Hardinge Medical College, Delhi, India between July 2022 to May 2023. This study was conducted to find the awareness and practices of breastfeeding, family planning, and postpartum health among our postnatal mothers. The ethical clearance was obtained from the Institution vide letter No LHMC/IEC/2022/03/68. A convenient sample size of 200 was taken. The postnatal women who delivered at our institution and visited our postnatal clinic at 6 weeks for follow up were selected by simple random method. The women who delivered at other hospitals and visited our postnatal clinic were excluded from the study. The predesigned proforma was used to record the data. Written informed consent was obtained from all study participants. The proforma included demographic details, details of delivery, high-risk factors, awareness and practice about breastfeeding, postpartum nutrition, interpregnancy interval, resumption of sexual activity after delivery, contraception, postnatal exercises, and danger signs. The women were also screened for possible postpartum depression by the Edinburgh Postnatal Depression Scale. The data collected was entered into an MS excel sheet and analyzed by frequencies and percentages using SPSS version 21.

Results:

The socio-demographic profile is depicted in Table 1. The majority of our participants were in the age group of 25-30 years (93/200, 46.5%) and were multiparous (102/200, 51%). About 88.5% (177/200) were literate and the majority about 33.5% (67/200) were graduates by educational status. The majority about 36.5% (73/200) constituted the upper lower class by modified Kuppuswamy scale. About 58.5% (117/200) had high risk factors during pregnancy. About 71.5% (143/200) had delivered by vaginal route and 28.5% (57/200) had undergone caesarean section.

Table 1: Demographic profile of mothers

VARIABLES	N (%)
Age group in years	
19-24	61 (30.5%)
25-30	93 (46.5%)
31-35	38 (19%)
>36	08 (4%)
Parity	
Primipara	98 (49%)
Multipara	102 (51%)
Education	
Illiterate	23 (11.5%)
Primary School	16 (8%)
High School	43 (21.5%)
Intermediate	44 (22%)
Graduate	67 (33.5%)
Profession	7 (3.5%)
Socioeconomic status	
Upper	7 (3.5%)
Upper Middle	4 (2%)
Lower Middle	49(24.5%)
Upper Lower	73(36.5%)
Lower	67(33.5%)
Risk Stratification	
Low Risk	83 (41.5%)

High Risk	117 (58.5%)
Route of Birth	
Vaginal Birth	143 (71.5%)
Caesarean Birth	57 (28.5%)

The Breastfeeding Practices is depicted in Table 2. The majority of our women (173/200, 86.5%) were aware of exclusive breastfeeding for six months. About 62% (124/200) had initiated breastfeeding within one hour of delivery. About 90.5% (181/200) of mothers had fed their babies with colostrum. The majority about 97.5% (195/200) were aware of burping and were regularly burping their babies after each feed.

Table 2: Breastfeeding Practice

Breastfeeding initiation	N (%)
<1hr	124 (62%)
>1hr	76 (38%)
Exclusive Breastfeeding	
Aware	173 (86.5%)
Unaware	27 (13.5%)
Colostrum	
Aware (Fed)	181 (90.5%)
Unaware (Not Fed)	19 (9.5%)
Burping of Baby	
Practiced	195 (97.5%)
Not Practised	5 (2.5%)

The Family Planning Practices is depicted in Table 3. About 81.5% (163/200) of women were aware of various family planning methods but only 58.5% (117/200) were using contraception. The majority (138/200, 69%) of participants had not resumed sexual activity at 6 weeks. The birth spacing awareness was observed in 63.5% (127/200) women.

Table 3: Family Planning Practices

Contraception method	N (%)
Practiced	117 (58.5%)
Not Practiced	83 (41.5%)
Family Planning Method Awareness	
Aware	163 (81.5%)
Not aware	37 (18.5%)
Planned Inter pregnancy Interval (Birth spacing interval knowledge)	
Unaware	127 (63.5%)
Aware	73 (36.5%)
Sexual Activity	
Resumed	62 (31%)
Not Resumed	138 (69%)

The Postpartum practices and health is shown in Table 4. About 49% (98/200) of our respondents practiced postpartum exercises and the majority (161/200, 80.5%) were aware of postpartum diet. About 73% (146/200) were aware of danger signs in the postnatal period. Majority (113/200, 56.5%) were noncompliant with iron and calcium tablet intake. The prevalence of postpartum anemia with Hb < 12g/dl was high in our study group about 70.4% (143/200). The screening for postpartum depression was done using the Edinburgh Postpartum Depression Scale about 12% had the possibility of depression and 88% had no depression.

Table 4: Post-partum health

Post-Partum Exercise	N (%)
Practising	98 (49%)
Not Practising	102 (51%)
Post-Partum Diet	
Aware	161 (80.5%)
Unaware	39 (19.5%)
Post-natal danger signs	
Aware	146 (73%)
Unaware	54 (27%)
Iron and Calcium intake	
Compliant	87 (43.5%)
Non-compliant	113 (56.5 %)
Haemoglobin status	
Hb >12 g/dl	57 (29.6%)
Hb <12g/dl	143 (70.4%)
Depression (Edinburgh scale)	
Possible depression	24 (12%)
No Depression	176 (88%)

Discussion:

The effective delivery and utilization of postnatal services still remain a challenge in both developing and developed countries. This study provides insight into the awareness and practices of postnatal women who received the best care at a tertiary referral centre.

In our study, 86% of mothers were aware of breastfeeding practices and not to use pre lacteal feeds like sugar water, water, and honey which was comparable with the study in Delhi, North India by Reena Pal & Anita Mehndiratta, 2016 where 89.4% were aware of breastfeeding practices. A total of 62% of our study participants had initiated breastfeeding within one hour of giving birth and 90.5% had given colostrum to their babies. Exclusive breastfeeding was practiced in 86.5% of our mothers and 13.5% had used top feeds. The majority of them about 97.5% were aware of burping the babies. This can be compared to the study conducted at Bangalore in South India by Vijayalakshmi et al., 2015 where 88.5% of mothers breastfed their infants and 85.2% were aware of exclusive breastfeeding for six months. But in contrary to our finding, only 27% of their participants could exclusively breastfeed. This can be explained by the observation that most of our participants were literate and the maximum were graduates so were well aware of breastfeeding and the correct practices. The education of women plays a positive role in fulfilling the health needs of both mother and baby.

In this study, although 81.5% of women were aware of contraceptive measures only 58.5% were using various contraception methods. Despite the knowledge and availability of family planning services, the unmet need for family planning has continued to be a major national problem. As per National Family Health survey-5 (NFHS-5), the unmet need for contraception varied from 5.2% to 28.2 % in different parts of our country and the highest was in Meghalaya (NFHS-5, 2019-2021). Another study conducted in the urban area of Pondicherry, India has also reported a high unmet need for contraception about

27.3% (Sulthana et al., 2015). Among our women, about 63.5% were aware of the correct spacing of birth of three years or more which was comparable to a study by Ganiga et al.,2021.

Despite of majority being educated, only 43.5 % of our study participants were on regular intake of iron and calcium supplements. As per current guidelines, iron and folic acid tablets and calcium tablets are to be continued in the postnatal period for a duration of 180 days (Ministry of Health & Family Welfare, Government of India, 2014). In spite of presumed adequate counseling and recommendations, the prevalence of anemia in our postpartum women was as high as 70.4%. This may be attributed to noncompliance with iron intake and partially due to ineffective counseling by the health staff due to high patient load.

Childbearing is often associated with postnatal depression as a common complication and is considered a public health problem (Wisner et al., 2002). Our study participants were screened using the Edinburgh Postnatal Depression Scale (EDPS) (Cox et al., 1987). About 12 % of our mothers were screened positive for possible depression. A study in Ethiopia, by Shitu et al., 2019 showed 23.7% prevalence of postpartum depression in their study participants. A systematic review and meta-analysis on postpartum depression in India by Upadhyay has shown pooled prevalence of 19% (Upadhyay et al., 2017). The low prevalence of postpartum depression in our study may be attributed to the education status of our participants as the majority of them were literates and most were graduates. And also, most of the women had delivered by natural vaginal route who could cope with challenges of the birth.

Limitations of the study

The limitation of this study is that it is a single-centre study done at a tertiary referral hospital with a small sample size. Hence, the results and observations cannot be generalized. However, the identification of gaps in awareness and practices of our postnatal mothers may help in improving the quality of care and effective counseling and communication.

Conclusion:

Postnatal care constitutes an indispensable component of maternal health care as it provides an opportunity to educate the mother about maternal as well as newborn care. It was observed that the majority of women were well aware of breastfeeding and family planning practices. Despite our mothers being educated, there was a high prevalence of postpartum anemia and noncompliance with iron and calcium supplements. There is an urgent need to emphasize the improvement of counseling on diet as well as iron and calcium prophylaxis. The intervention in the early stages is pivotal in preventing complications and late sequelae in both mother and newborn.

Conflicts of Interest

The authors declare no conflicts of interest.

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