ORIGINAL ARTICLE

Utilization of Postnatal Care Services and Factors Affecting It among Women of Urban Slums in Dehradun, Uttarakhand

Neha Upadhyai[1], Sudhir Kumar Gupta[2]

[1]Assistant Professor, Department of Community Medicine Shri Guru Ram Rai Institute of Medical & Health Sciences Dehradun, Uttarakhand 248001;[2]Prof & Head, Department of Community Medicine, Teerthankar Mahavir University, Moradabad, Uttar Pradesh 244001

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Corresponding Author

Corresponding Author: Dr Neha Upadhyai, AGf-4, Greenview Blossom Apartments, Sahastradhara Road, Dehradun 248013
E Mail ID: dr.nehaupadhyai@gmail.com

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Abstract

Background: India has made tremendous progress in reducing MMR by77 % since 1990, but still efforts are required to keep it up to achieve the new SDG target. Postnatal care is one of the interventions that can help the country to realize this aspiration. Present study is done to highlight this aspect of maternal care. **Aims and Objectives**: To assess utilization of postnatal care services among women residing in urban slums of Dehradun and factors affecting it. **Materials and methods**: A community based cross-sectional study was carried out among recently delivered mothers, residing in urban slums. 488 women were studied by systematic random sampling with the help of pre-tested questionaire. Data analysis was done using statistical software. **Results**: Out of 488 women, 52.5% received postnatal care at least once within first 48 hours of delivery. Only 76(15.5%) received all recommended PNC visits. 83(17%) reported to have some health problems after delivery. Socio-economic status, Education, number of ANC visits, place of delivery, type of delivery, and perceived health problem after delivery were found to be significant factors affecting postnatal care utilization. **Conclusion**: The study shows low level of complete utilization of postnatal care among women. Therefore, mothers should be educated about its importance to reduce both maternal and neonatal morbidity and mortality.

Keywords

Postnatal Care; Slums; Neonatal; Mothers; Perceived Health.

Introduction

Around 830 women still die of pregnancy related causes and 99% of them are from developing countries.(1) The Postnatal period is period of six weeks following delivery. Ensuring appropriate postnatal care is critical to safeguard maternal and newborn health. (2,3,4,5) Therefore it is one of the important interventions to reduce maternal and neonatal morbidity and mortality.(6) WHO recommends postnatal visits first within 24 hours of birth, on day 3 (48-72 hrs), on 7-14 day and on 6 weeks after birth. (7) Access to and uptake of PNC have improved over period of time, but still only 37 and 51% of women in low and middle-income countries, receive a postnatal visit within 2 days of giving birth. (8) India has made tremendous progress in recent years but needs to remain on track to

achieve the Sustainable Development Goal (SDG) target of MMR below 70 per lac LB by 2030. (9)

In general postnatal care uptake has been limited in south Asia and particularly in India. (10,11) According to the National Family Health Survey (NFHS-4), only 65 % women, reported receiving postnatal check-up within 2 days after their recent birth. (12) Present study was carried out to know the status of postnatal care utilization among women of urban slums in Dehradun, Uttarakhand and factors affecting it.

Aims & Objectives

1. To assess utilization of postnatal care services among women residing in urban slums of Dehradun
2. To find out the factors affecting Post-natal care services among them

Material & Methods

A cross-sectional community-based study was carried out in the urban slum area of Dehradun, Uttarakhand, India. Ethical approval was sought from the Institutional Ethical Committee before starting the study. Data was collected for a period from Aug 2014 to Feb 2015. There are 79 notified slums in Dehradun, with total population of 120,850. (13) Study unit was women who delivered within past 3 months, residing in the urban slums. After taking their verbal consent and taking care of their privacy and willingness to answer, 488 such women were interviewed using a pretested and pre-designed questionnaire. Women who were permanent residents or had received ante natal, intra natal and post natal care in that particular area were included in the study. Women who had come to the area for delivery only or who had left the area for delivery and non-consenting women were excluded from the study. Sample size was calculated by the formula z2 pq/ L2 According to NFHS 3, Uttarakhand state report, the proportion of women receiving three or more antenatal visits in urban area is 45%.(14) Taking this as the prevalence, at 95% confidence limit and a relative precision of 10%, a sample of 488 was taken. Slum list was taken and 30 slums were selected by two stage systematic random sampling. In the first stage the slums were identified randomly and 30 slums were identified. Later proportionate to size sampling was done in the selected slums to cover the desired sample size of 488 by house to house visit. Interview of mothers was conducted in their home and information regarding socio-demography and details of care received during and after pregnancy were noted. Information thus collected was recorded in a predesigned and pretested proforma. Data so collected was entered in excel sheet and analyzed using statistical software SPSS 20. Statistical significance was set at p value of <0.05 and 95% CI. Chi-square test was applied to draw inferences.

Results

Total 488 respondents participated in the study (mean age in years± SD; 25.2± 4.06).

Maximum 48.8% were in 20-25 years age group. 13% participants were below 20 years and 1.8% above age of 35 years. The mean age at marriage was 19.38 years and age of first pregnancy was 21.2 years. Inter pregnancy interval for majority of women was 24 months (modal value). 42.6 % women were illiterate. Only 7.2% of them had done graduation or more. Most of them (68.9%) were Hindus belonging to nuclear families (62.3%). Majority of them belonged to Socio-economic Class IV (82.8%). A high proportion of women (95.9 %) were house wives and the rest were daily wage worker. About 86.9% of respondent's husbands were unskilled and semiskilled workers, and very rare 2.7 % were unemployed. Husbands of 31.4% respondents were illiterate. Majority of them were multipara (64.3%). (Table1)

Postnatal care Utilization: Out of 488 women interviewed, 256(52.5%) had a postnatal visit within 48 hours of delivery. Only 76(15.6%) women had all recommended three or more postnatal visit and 32.6% received no care after delivery (Table 2). A total of 81(16.5%) women had perceived health problems or complications after delivery. The common health problems perceived by them were high grade fever 27.7%, wound sepsis and gaped episiotomy 18.1%, foul smelling discharge 16.9%, urinary complaints 9.6%, pain legs 3.6% and irregular BPV in 2.4%. (Table 3)

(Table 4) shows that, women with age <20 years(4,6.3%) or >35 years(0), were less likely to avail complete postnatal care visits as compared to women between 20-35 years of age (72, 17.3%). This association was found to be significant (P<0.05).

Education of both women and their husbands was found to be a significant contributory factor for postnatal services utilization. More educated women (59,21%) availed postnatal care as compared to illiterate women (17,8%) (P<0.001). Similarly, women with educated husband availed more

postnatal (62,18.5%) care as compared to those with whose husbands were illiterate (14,9.2%) (P<0.0001).

More women from higher Socio-economic class (20,25.6%) received complete postnatal visits as compared to lower Socioeconomic class (56,13.9%) p<0.05.

The women who received four or more antenatal checkups were found to be more likely (44,21.5%) to avail complete PNC visits than those who did not receive any ANC visit (5,9.4%) (p<0.05). Similarly, women who used institutional delivery services were more likely (75,36.2%) to use the postnatal services than the women who delivered at home (1,0.7%) (p <0.001).

The women belonging to joint family (37,20.1%) were more likely to use the postnatal care services than the women from nuclear family (39,12.8%) (p <0.05).

Other significant contributors for PNC care utilization were caesarean delivery (p<0.0001) and any complication or perceived health problem after delivery (p<0.0001). However, parity and working status of mother had shown no significant effect on postnatal care utilization of mother. (P>0.05) (Table 4)

Discussion

Post-natal care is essential for both mother and baby as it provides opportunity to identify and correct any health problem or complication developing in both mother and baby. In our study almost half, 256(52.5%) women received postnatal care at least once in first 48 hours which is comparable to studies done in slums of Varanasi (58.4%), urban slums of Bangalore and tribal area of Madhya Pradesh (71.6%).(15-21) However the findings were much higher in studies done in Mumbai slums (16%), Nepal (19%) and Bangladesh (16.6%).(13,22,23) This differential in utilization could be explained by difference In the socio-demographic profile of the sampled population and their access to health care services.

Present study showed that utilization of PNC care was more among women between age 20-35 years as compared to <20 or >35 years. This could be because younger females may be less vigilant about their health due to ignorance. The women who are >35 years had high parity and they don't go for PNC care utilization either being busy with kids or by her own experience of previous pregnancies. This finding is supported by other studies.(22,23)

Present study found that educated women were more likely to get all recommended post-natal care as compared to those who were illiterate. So education of mother has a positive influence on care after delivery. Education increases awareness about health, availability and accessibility of services and help develop the confidence. Also, education increases the communication within the family especially with the husband on health-related issues and helps the women to develop confidence to take decisions regarding her health. Educated women seek out better service quality, has a greater ability to improve their health by using health related inputs. This finding was supported by other studies. (23,24,25) Husband's education showed an important influence on mother getting PNC care. PNC care utilization was more common in women with educated husbands. This may be because educated husbands are in better position to understand the importance of PNC care and support their wives in getting the maternal health care. Other studies also found this association. (16,17)

Our study found that PNC utilization increased significantly with betterment of SES. This finding could be explained by the fact that mothers of lower socioeconomic status are short of money to visit hospital or she chooses baby's expenses over her own health. Similar findings were obtained by other studies. (18,22,23,24)

Present study shows that there was higher PNC utilization among mothers who were house wives (16%) as compared to working women (6%). On analysis this association was not found to be statistically significant. This could be explained by the fact that very less women (4%) in sampled population were working and were daily wagers. Going for their own health will lead to wages loss, problem in getting frequent leaves or time constraint. Similar findings were reported by Upadhyay SK et al. (23)

Our study showed that mothers who delivered in hospital, utilized the postnatal services more as compared to women who delivered at home. This can be explained by the fact that women with institutional delivery were counseled to visit health facility whereas home delivered women are less motivated to do so. Similar findings were reported by other studies. (15,16,18,24,25,26,27,28) Women

should be motivated to go to health facility for their own health also along with the baby.

Our study didn't find any association between parity and PNC care utilization. However, studies by Pal et al in Delhi, Varma et al in rural UP, and by Chopra et al in urban slums of Lucknow, found more postnatal care utilization among primipara mothers. (20,25,28) On the contrary Bhattacharjee et al (22) found more among higher birth order women.

Our study found that women who received four or more antenatal visits also utilized postnatal care completely. This could be due to the fact that women who availed complete antenatal care services are adequately counseled for the relevance of postnatal care at the time of their ANC visits. Similar results were obtained by other studies. (21,25,28)

Our study found that postnatal care utilization was more among women who had cesarean delivery. Cesarean sections occur in health facilities and women remain in the facility for a prolonged period of time after the procedure. This should in theory facilitate closer interaction between the mother and the health provider and results in better opportunities to receive postnatal care. Similar findings were reported by Singh A et al.(8) Also, women who had complication or any perceived health problem after delivery, were more likely to have complete PNC care. This could be because having problem after delivery increases the contact of women with the health care provider. But the study by Singh A didn't find such association. (28)

Conclusion

The overall complete utilization of PNC services was low in urban slums of Dehradun. The important positive factors affecting its utilization were respondent women and their husbands' education, high socioeconomic status, joint family, good antenatal care and institutional delivery. The factors for improvement must be taken care of and rectified to further improve maternal health in India and remain on track to SDG target.

Recommendation

The better utilization of the maternal health services can be achieved by overall socio-economic development including focus on women empowerment and education. Women education should be given high priority. Women themselves should exercise their rights to their own health, freedom to express and access to economic resources in every field of life. There is need for awareness regarding highlighting importance of PNC care and availability of PNC care services at the time of their ANC visit, by suitable IEC activities. Steps should be taken to educate mothers about dangers in neglecting postnatal care. There can be TV messages, some celebrity endorsing the use of maternal services for its acceptance. Close monitoring of ANC and PNC services quality and delivery, health workforce support, appropriate use of electronic technologies, integrated care, a woman-friendly perspective, and adequate infrastructure are key elements of successful programs that benefit the health and wellbeing of women, their newborns and families.

Relevance of the study

This study highlights the importance of giving care to mother after delivery which is a crucial time for her and her baby, often neglected part in maternal health care services. If this part of care is improved, we can avoid maternal deaths still occurring in the world.

Authors Contribution

Both authors have contributed in the planning, data analysis and writing the manuscript. NU: contributed in data collection and analysis and writing manuscript SKG: contributed by planning, overall supervision and time to time motivation.

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Tables

TABLE 1 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS (N=488)

Category	Age group	Number	Percentage (%)
Age	<20 Yrs	64	13.1
	20-25 Yrs	238	48.8
	25-30 Yrs	142	29.1
	30-35 Yrs	35	7.2
	>35 Yrs	9	1.8
Education of Respondents	Illiterate	208	42.6

	Primary school	65	13.3
	Middle school	83	17
	High school	61	12.5
	Intermediate	36	7.4
	Graduate and above	35	7.2
Occupation	House wife	468	95.9
	Un-skilled worker	14	2.9
	Skilled worker	6	1.2
SES	Class I (upper)*and II	0	0
	Class III (lower middle)	78	16
	Class IV(upper lower)	404	82.8
	Class V (lower)	6	1.2
Parity	1	174	35.7
	2	168	34.4
	3	86	17.6
	>3	60	12.3
Husband's Education	Illiterate	153	31.4
	Primary school	73	15
	Middle school	83	17
	High school	107	21.9
	Intermediate	44	9.0
	Graduate and above	28	5.7
Husband's Occupation	Unemployed	13	2.7
	Un-skilled	269	55.1
	Semi-skilled	155	31.8
	Skilled	44	9.0
	Clerical/shop owner	7	1.4

TABLE 2 DISTRIBUTION OF STUDY PARTICIPANTS BY POST-NATAL CARE RECEIVED AFTER DELIVERY. (N=488)

PNC Care received	Yes	Percentage
Within 24 hours of delivery	329	67.4
Within 48 hours of delivery	256	52.5
At 10-14 days of delivery	221	45.3
At 6 weeks after delivery	94	19.3
No PNC care received after delivery	159	32.6
All recommended PNC care received	76	15.6

TABLE 3 PERCEIVED HEALTH PROBLEMS REPORTED BY STUDY PARTICIPANTS AFTER DELIVERY

Complications / Health problems	Number	Percentage (%)
High grade fever	23	27.7
Excessive bleeding	10	12.0
Foul smelling discharge per vaginum	14	16.9
Urinary Complaints	8	9.6
UV prolapse	2	2.4
Pain in legs	3	3.6
Wound sepsis (episiotomy or CS)	15	18.1
Irregular Periods	2	2.4
Excessive fatigue	4	4.9
Total	81	100.0

TABLE 4 FACTORS AFFECTING UTILIZATION OF POSTNATAL CARE AMONG STUDY PARTICIPANTS

Variables	Complete PNC visits						
Age group	Yes	%	No	%	Total	$_x2$	P-value
<20 yrs	4	6.3	60	93.8	64	6.887	0.032
20-35 yrs	72	17.3	343	82.7	415		
>35 yrs	0	0.0	9	100.0	9		
Mother's education							
Illiterate	17	8	191	92	208	15.101	0.00
Literate	59	21	221	79	280		
Husband education							
Illiterate	14	9.2	139	90.8	153	6.994	0.000
Literate	62	18.5	273	81.5	335		
Working status							
Working	4	20	16	80.0	20	0.311	0.577
Not working	72	15.4	396	84.6	468		
Socio-economic class							
SES Class 3	22	28.2	56	71.8	78	13.148	0.001
SES Class 4	52	12.9	352	87.1	404		
SES Class 5	2	33.3	4	66.7	6		
Family type							
Nuclear	39	12.8	265	87.2	304	4.620	0.032
Joint	37	20.1	147	79.9	184		
Parity							
Primipara	26	14.9	148	85.1	174	0.082	0.232
Multipara	50	15.9	264	84.1	314		
ANC Visits							
No visit	1	1.9	52	98.1	53	32.939	0.0000
1 visit	5	9.4	48	90.6	53		
2 visit	7	8.4	76	91.6	83		
3 visit	9	9.6	85	90.4	94		
4 and more visits	54	26.3	151	73.7	205		
Place of delivery							
Home delivery	1	0.7	137	99.3	138	32.268	0.000
Institutional delivery	75	21.4	275	78.6	350		
Type of delivery							
Normal Delivery	39	9.7	363	90.3	402	59.829	0.000
Cesarean delivery	37	43.0	49	57.0	86		
Perceived health problem after delivery							
Yes	19	23.5	62	76.5	81	4.590	0.032
No	57	14.0	350	86.0	407		
Total	76	15.6	412	84.4	488		