

A Study on Utilization Pattern of Postnatal Health Care Services by Mothers in Rural Area

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Abstract

Context: Postnatal care is one of the most important maternal health-care services. Adequate utilization of postnatal care can help reduce maternal and infant mortality. Poverty, illiteracy, gender bias and availability of medical facilities influence health care utilization. Utilization of Postnatal health care services is under-researched in India. **Objective:** To study the utilization pattern of postnatal health care services among rural mothers and factors influencing the utilization. **Materials and Methods:** A community based cross-sectional study, involving 497 mothers of Handignur Primary Health Centre of Belgaum district, who had delivered from June 2007 to May 2008. **Results:** Only 2.4% of mothers had three postnatal visits, 53.3% had 1-2 postnatal visits and 46.7% mothers did not receive any postnatal care. Literacy level, socioeconomic status and parity of the mother were significantly associated with the utilization of services. **Conclusion:** Utilization of postnatal health care services was unacceptably low as majority of the mothers were unaware of the need of postnatal services. The findings reveal the need for strengthening of postnatal services to improve the maternal health.

Keywords: Health Services; Mothers; Postnatal; Rural; Utilisation.

Introduction

In India, maternal mortality ratio is 212 maternal deaths per one lakh live births and in Karnataka it is 178 maternal deaths per one lakh live births.[1] Almost two-thirds of maternal deaths tend to occur in the postnatal period. The highest risk of death both for the mother and her newborn occurs at the time of childbirth or immediately in the period after birth. Promoting antenatal care (ANC) and skilled attendance at birth is clearly not enough for improving maternal and child health.[2]

Although the provision of postnatal care (PNC) has been an important component of various governmental interventions in India however - given the focus on skilled attendance at birth and antenatal care-the PNC component has received little attention.[3] According to the National Family Health Survey (NFHS-3) 2005-06, 58% of women did not receive any postnatal check-up after their recent birth. Only 37% of mothers received check-up within the first two days after birth.[4] Postnatal care is under researched in southern India. So, present study had been undertaken with the objective, to know the utilization pattern of postnatal services in rural area of Belgaum district and to know the factors influencing the utilization pattern.

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Materials and Methods

Study Area

The present study was conducted in Handignur Primary Health Centre (PHC), a rural field practice area of department of Community Medicine, J.N. Medical College, Belgaum.

Study Design

Community based cross- sectional study.

Study Participants

A total of 497 married women who had delivered during the one year period from June 2007 to May 2008, were included in the study.

Inclusion Criteria

1. Married women who delivered during June 2007 to May 2008.
2. Women who are residing in primary health centre area since one year.

Exclusion Criteria

1. Unmarried women
2. Women who had come to their parent's place in Handignur PHC for delivery.

Method of Data Collection

A list of women, who had delivered during the reference period, according to the villages was prepared with the information obtained from ANM (Auxiliary Nurse Midwife) and local Anganwadi worker. Each of the women was visited at her house after two months of delivery. After taking her informed consent, data was collected according to predesigned and pretested questionnaire which included information on socio-demographic variables and health care services availed during puerperium.

Statistical Analysis

Data was analyzed by obtaining rates and proportions. Chi-square test was used to find the significance. This whole analysis was done using SPSS version 11 software.

Table 1: Socio-Demographic Profile of the Mothers

	Category	Frequency	Percentage
Age (years)	15- 19	26	05.2
	20- 24	305	61.4
	25-29	146	29.4
	≥30	20	04.0
Socioeconomic status	Class I	10	2.0
	Class II	39	7.8
	Class III	138	27.8
	Class IV	242	48.7
	Class V	68	13.7
Literacy status	Illiterate	90	18.1
	Primary school	64	12.9
	Middle school	112	22.5
	High school	173	34.8
Parity	College	58	11.7
	1	197	39.6
	2	199	40.1
	3	75	15.1
	4	21	04.2
	5	5	01.0

Fig 1: Distribution of Mothers According to Number of Postnatal Visits

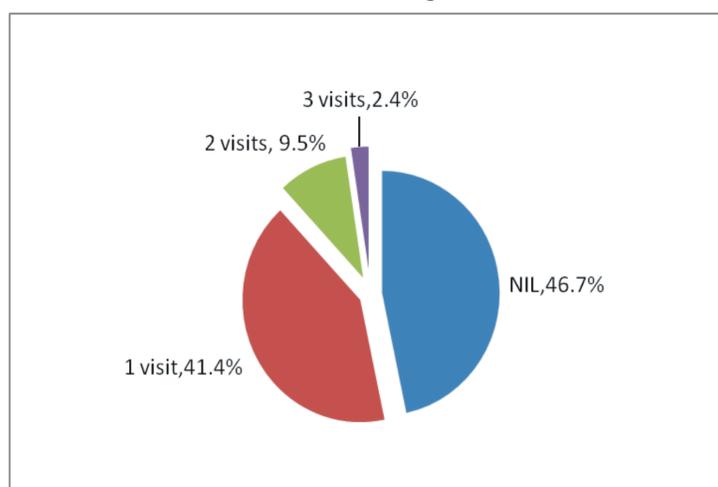


Table 2: Distribution of Mothers According to Details of Postnatal Care

	Character	Frequency	Percentage
Persons consulted	ANM	144	54.3
	Nurse	04	01.5
	Doctor	117	44.2
	Lack of knowledge	218	93.9
Reasons for not utilizing postnatal care	Not accessible	08	3.5
	Objection from family members	05	2.2
	Not necessary	01	0.4
	Nil	470	94.6
Postnatal complication	Mastitis	15	3.0
	UTI	12	2.4
	PHC & District Hospital	08	29.7
Place of treatment (n=27)*	Private hospital	15	55.5
	Both Govt. & Pvt. Hospital	02	07.4
	No Treatment	02	07.4

(*Among those who had postnatal complications.)

Results

A total of 497 women who delivered in one year period were studied, mean age of mothers was 23 ± 3.14 years, with a range of 17 to 40 years. Among them 5.2% were teenage mothers and 4% were aged 30 years and above. Majority (99%) of mothers were Hindus and only 1% were Muslims. The percentage of mothers who were housewife was 83.1% and 16.9% of mothers working. Most of the mothers (71.4%) lived in joint families, 21.5% lived in nuclear families and 7.1% in three generation families. About half the number of (48.7%) of

mothers belonged to class IV socioeconomic status according to modified B G Prasad’s classification. Majority (79.7%) of mothers had 1-2 deliveries after viability period & one percentage of mothers belonged to high risk group as they were grand multipara. The overall educational attainment among the mothers was good with 55.3% of them having 5-10years of schooling. (Table1)

Fig 1 shows that, 46.7% mothers did not receive postnatal care, 53.3% had 1-2 postnatal visits and only 2.4% had three postnatal visits. Postnatal check-up was conducted by ANM in 54.3%. The major reason for not utilizing

Table 3: Distribution of Mothers According to Postnatal Advice Received

Postnatal advice	Received		Not received		Total	
	No.	%	No.	%	No.	%
Diet	337	67.8	160	32.2	497	100
Exercise	59	11.9	438	88.1	497	100
Exclusive Breastfeeding	413	83.6	81	16.4	494*	100
Care of newborn	374	75.7	120	24.3	494*	100
Immunization	416	84.2	78	15.8	494*	100
Family planning	316	63.6	181	36.4	497	100

(* 3 mothers who had stillbirth were excluded)

Table 4: Association of Literacy Status, Type of Family, Socio-Economic Status and Parity of Mother with Utilization of Postnatal Services

Factor		Post natal visits			
		Nil	1	= 2	Total
Literacy status $\chi^2=23.643$, df=8, p=0.003* significant	Illiterate	48 (53.4)	40 (44.4)	2 (2.2)	90 (100)
	Primary school	28 (43.8)	32 (50.0)	4 (6.2)	64 (100)
	Middle school	61 (54.5)	37 (33)	14 (12.5)	112 (100)
	High school	75 (43.4)	72 (41.6)	6 (15)	173 (100)
	College	20 (34.5)	25 (43.1)	13 (22.4)	58 (100)
	Total	232 (46.7)	206 (41.4)	59 (11.9)	497 (100)
Type of family $\chi^2=12.04$, df=4, p=0.017*significant	Nuclear	55 (51.4)	36 (33.6)	16 (15)	107 (100)
	Joint	168 (47.3)	152 (42.8)	35 (9.9)	355 (100)
	3 generation	9 (25.7)	18 (51.4)	8 (22.9)	35 (100)
	Total	232 (46.7)	206 (41.4)	59 (11.9)	497 (100)
Socio-economic status-class $\chi^2=15.64$, df=6, p=0.016*significant	I & II	12 (24.5)	26 (53.1)	11 (22.4)	49 (100)
	III	70 (50.7)	51 (37)	17 (12.3)	138 (100)
	IV	120 (49.6)	101 (41.7)	21 (8.7)	242 (100)
	V	30 (44.1)	28 (41.2)	10 (14.7)	68 (100)
	Total	232 (46.7)	206 (41.4)	59 (11.9)	497 (100)
Parity $\chi^2=9.73$, df=6, p=0.13	1	86 (43.7)	80 (40.6)	31 (15.7)	197 (100)
	2	94 (47.2)	83 (41.7)	22 (16.1)	199 (100)
	3	39 (52)	34 (45.3)	2 (2.7)	75 (100)
	=4	13(50)	9 (34.6)	4 (15.4)	26(100)
	Total	232(46.7)	206 (41.4)	59 (11.9)	497 (100)

(Figures in parenthesis indicate percentage)

postnatal care was lack of knowledge regarding postnatal care in 93.9% women. Majority 94.6% mothers didn't have any postnatal complications, 3% reported having mastitis and other 2.4% had urinary tract infections. Of the total 27 mothers who had postnatal complications, 92.6% took treatment and others 7.4% didn't take any treatment. (Table 2)

The various postnatal advices given to mothers is shown in Table 3, in which only 11.9% mothers received advice on postnatal exercise. Table 4 depicts that as the literacy status and socioeconomic status raised, more

number of mothers had two or more postnatal visits compared to illiterate and lower socioeconomic status mothers, these difference were statistically significant ($p < 0.05$). Parity of the women did not significantly influence the utilization of postnatal services ($p > 0.05$).

The association between occupation and number of postnatal visits was not statistically significant. It was observed that two or more postnatal visits were made by 22.9% of mothers belonging to three generation families compared to 15% and 9.9% among mothers belonging to nuclear and joint families. This

difference was statistically significant.

Discussion

The Reproductive and Child Health Programme recommends three postnatal visits (Ministry of Health and Family Welfare, 1997). The WHO guidelines on postnatal care recommend postnatal visit within 6 to 12 hours after birth and follow-up visits from 3 to 6 days, at 6 weeks, and then at 6 months.[5] Strategies aimed at promoting universal access to postnatal care have been recommended for several years and these interventions have measurable and sustained impact in reducing maternal mortality. Yet, there is a lack of follow-up after childbirth. Moreover, mothers often only seek postnatal care in the event of complications after birth. Poverty, lack of schooling, poor knowledge, and inadequate follow-up services in healthcare systems deter women from seeking postnatal care.[3]

According to NFHS-3, in Karnataka 31% of mothers did not receive any postnatal care at all.[6] The present study had higher non-utilizing rates with 46.7% not having any postnatal care. A study done in subcentre of Rohtak district it was observed that 4.4% of mothers had three postnatal visits[7] and but in Handignur PHC only 2.4% of mothers having three postnatal check-up within 6 weeks after delivery. Another study conducted in slums of Davangere city showed 64.7% mothers had at least one postnatal visit,[8] in our study 53.3% had availed minimum of one postnatal check-up.

Out of the 265 mothers who had availed postnatal care, 44.2% consulted doctors, 1.5% visited nurses and ANM provided postnatal care for 53.3% of mothers. A study done in Nepal, it was found that 65% of women had postnatal care from doctor, 20% by nurse and 16% from female health worker.[9] However NFHS 3 data, a large majority of the postnatal check-ups were conducted by a doctor.[4] In another study conducted in Vantamuri PHC of Belgaum, 32% of mothers received postnatal care from doctors, 22.5% from ANM/ Nurse, 7% from trained dais and 38.5% from

untrained dais.[10]

The major reason for not utilising postnatal care was lack of knowledge in 93.9% women, 3.5% of women said health centre was not accessible, 2.2% had objection from family members and 0.4% felt it was not necessary. In a study conducted in rural area of Mysore district, reasons for not utilizing postnatal services were lack of knowledge (43.5%), no time to visit health center (29.2%) and felt it was not necessary (27.01%).[11] Majority 94.6% mothers didn't have any postnatal complications. This may also be a reason for lower utilization of postnatal care.

A study done at Vantamuri PHC of Belgaum found that 6% mothers had postnatal complications. Among them 50% took treatment from government health facility, 33.3% from private health facility and 10.7% from both government and private health facility.[10] In the present study among mothers who had postnatal complications, 55.5% took treatment from private hospital, 29.7% from government health facility, 7.4% from both government and private health facility and others 7.4% didn't take any treatment.

A study done in Lucknow district, found that 70% mothers had received advice on breast feeding and advice on diet and family planning was given to 33.8% and 58.1% respectively.[12] In our study advice on exclusive breastfeeding, immunization of the infant, postnatal dietary and family planning were given to 83.1%, 83.7%, 67.8% and 63.6% of mothers respectively but advice regarding postnatal exercise were given to only 11.9% of mothers.

The difference in utilization of postnatal care among educated and higher socio-economic mothers compared to mothers in illiterate and lower socio-economic groups, this was statistically significant ($p < 0.05$). Similar findings were noted in other studies.[2,4,10,13]

In our study, more number of 4th and 5th para mothers had institutional deliveries (76.9%) and two or more postnatal visits (15.4%) compared to 3rd para mothers (68% and 2.7% respectively). Probably, the advice

given by the antenatal care provider that these deliveries come under high risk category, they opted for institutional delivery.

In our study, more number of 4th and 5th para mothers had two or more postnatal visits (15.4%) compared to 3rd para mothers (2.7%). Probably, the advice given by the antenatal care provider that these deliveries come under high risk category, they opted for more postnatal visits. The association between parity and utilization of postnatal health care was not significant. In studies done in slums of Davangere[8] and Ethiopia.[14] parity was significantly associated with utilization of postnatal care.

Considering the occupation of the woman, 13.1% of housewives had two or more postnatal check-ups compared to 5% of working women but this was not significant. Similar findings were found in a study conducted in slums of Davangere.[8]

In our study, two or more postnatal visits were made by 22.9% of mothers belonging to three generation families compared to 15% and 9.9% among mothers belonging to nuclear and joint families respectively. The difference was statistically significant.

Conclusion

Utilization of postnatal health services was inadequate in the study area. The findings suggest literacy status, type of family and socioeconomic status were significantly associated with the utilization of services. It was also noted that awareness and need of postnatal services are yet to be understood by mothers. Therefore efforts have to be made in this direction to improve maternal health.

Recommendations

Promotion of female literacy and empowerment; Information, Education and Communication (IEC) activities and holding out-reach sessions on maternal and child health is essential to improve coverage of services.

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