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Utilization of Postnatal Care Services among Women of Urban Slums

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ABSTRACT

Background: Utilization of postnatal services is the right of every woman and can be affected by socio-demographic factors and in turn with the availability of services. This research was undertaken to study the pattern of utilization of postnatal care services and factors affecting it among postnatal women of urban slums

Methods: Cross sectional study was done and data was collected by house to house survey after taking consent, using a predesigned and pre-tested proforma.

Results: Majority 54.21% women belonged to 21-25years of age, 56.84% were educated till high school and 88.95% belonged to lower class. 69.47% and 21.58% utilized ANC and PNC services. Literates and primi mothers had utilized PNC services compared to illiterates and multipara. Lower socioeconomic status women had used PNC adequately when compared to higher class ($p<0.05$).

Conclusion: Knowledge about PNC visits was good but the utilization of PNC package was less compared to ANC. Health education should be imparted at all levels of the healthcare to give mother and child a safe future.

Key words: Antenatal, Literacy, Postnatal, Urban, Slum

INTRODUCTION

Maternal healthcare is an essential component of primary health care, which has always remained a public health challenge.[1]Each day accounts to a total of approximately 830 deaths among women due to pregnancy and childbirth related causes. In developing countries, women on average have higher number of pregnancies and thus contribute to 99% of all maternal deaths and almost one third of which occur in South Asia.[2]An estimated 2,89,000 women die worldwide every year due to pregnancy, childbirth or the postnatal period complications, of which two thirds maternal deaths occur after delivery which shows the significance of postnatal period.[3]According to the National Family Health Survey 2015-16 (NFHS-4) in Karnataka, 56.6% of the women had availed the post natal care services.[4]

The postnatal period begins immediately after childbirth and lasts for six weeks.[5]According to World Health Organization (WHO), during post natal period a woman should receive at least three home visits by health workers, continuation of iron folic acid and calcium tablets, management of postpartum haemorrhage, caring of infection, getting education about breast feeding, nutrition, family planning services and postpartum exercise.[6]Thus postnatal period is very crucial to the health and wellbeing of mother and newborn.[6,7,8] It is one of those critical cares which reduces the maternal morbidity and mortality.[9]Any dearth of care during this period would result in significant loss and thus wavering the opportunities in promoting a healthy lifestyle for the woman and her family.[6]A woman's positive health calls for a healthy family, community and in turn healthy nation.[10]The inef-

fective utilization of these services has made both the mother and child vulnerable to morbidity and mortality[1]in low and middle income countries.

Postnatal care coverage is in a decreasing trend in comparison to other maternal and infant health services.[3]The process of globalization and industrialization has resulted in rapid urbanization paving way to movement of people to urban areas in search of livelihood. This has caused a spurt in urban population, lack of housing facilities and thus creating urban slums. The basic health and hygiene in urban slums have always remained as a matter of concern.[1]Women in these slums are always prone to unhealthful living conditions, inadequate utilization of maternal services due to poverty becoming more vulnerable to ill health.

Utilization of postnatal care services is influenced by magnitude of factors like poverty, distance, inadequate services and lack of information, myths, misconceptions and various cultural practices. Although there is provision of PNC services, women are not utilizing them effectively. Hence, the present study was proposed with the objectives of exploring PNC services utilization rate and the factors influencing them among postnatal women in urban slums.

METHODOLOGY

Study design: A community based, cross-sectional study was conducted for a period of three months in the urban slums. The participants included were women who had delivered one year prior to the onset of the study residing in an urban slum, which is the field practice of Urban Health Training Centre attached to a tertiary care hospital in Dharwad, Karnataka.

Sampling method: The overall sample size was calculated as 190, using the formula 4pq/L2, where p is the prevalence 48.34% (According to a study done in Andhrapradesh, where in the utilization rate of PNC services was 48.34%),[14] q=1-p and L the permissible error, taken as 15%, the sample size worked out to be 190 at 5% alpha error. The total population of urban field practice area is 30,000. With an average family size of seven members, 2000 families were residing in the study area. To achieve the required sample size, every 5th house was considered and only one woman from each family was included in the study, as she was considered to be representative of the selected family. Further for confirmation of the services utilized and to avoid recall bias, only those women were selected who had mother card with details of ANC, immunisation and PNC.

Sampling procedure: House to house survey was carried out by the investigators, by doing systematic random sampling (every 5thhouse was considered) with the help of anganwadi workers and medico social workers, who helped in developing rapport with the study participants. Only one woman was selected from each house and was considered as representative of the family and no other woman was selected from the same family to avoid duplication of the data and to avoid bias.

Inclusion and exclusion criteria: Women who had delivered one year prior to the study, residing in the study area for more than one year and who gave consent on a voluntary basis to participate in the study were included. Women who did not comply with the inclusion criteria were excluded.

Data Collection: Data was collected by interviewing 190 delivered women by conducting house-to-house survey using a pre-designed and pre-tested semi structured proforma, which included socio-demographic profile, antenatal and postnatal services utilization details. The questionnaire used in the study was translated to vernacular language and validated by the investigators. As per the requirement of the study and National health programmes, complete ANC and PNC packages were considered as-

ANC package: Complete antenatal package includes those mothers who had a minimum of three antenatal visits, at least two tetanus toxoid injections during the pregnancy, or received one tetanus toxoid injection during the pregnancy and at least one in the three years prior to the pregnancy,and received iron and folic acid tablets for 90 days or more.[15]

PNC package: A woman should receive at least three home visits by health workers, continuation of iron folic acid and calcium tablets, management of postpartum haemorrhage, caring of infection, getting education about breast feeding, nutrition, family planning services and postpartum exercise.[6]

Data were collected after signing a written informed consent form on voluntary basis and confidentiality was assured. Data analysis was done using SPSS software version 22.0. Descriptive statistics, Odds ratio and 95% Confidence interval were calculated. Chi-square test was applied to find an association between two attributes and P<0.05 was considered as statistically significant.

RESULTS

A total of 190 women participated in the study. The socio-demographic characteristics of the study participants are shown in Table.1, where majority of 54.21% were in the age group of 21-25years. 70% of the women belonged to Muslim community.

Table 1: Demographic characteristics of study participants (n=190)

Demographic characteristics	Women (%)
Age (years)	
15-20	6 (3.16)
21-25	103 (54.21)
26-30	59 (31.05)
31-35	22 (11.58)
Religion	
Hindu	51 (26.84)
Muslim	133 (70)
Christian	3 (1.58)
Others (Jain, Sikh)	3 (1.58)
Educational status	
Illiterates	21 (11.05)
Primary (1-7)	39 (20.53)
High school (8-10)	108 (56.84)
Intermediate (11-12)	13 (6.84)
Graduate & above	9 (4.74)
Socioeconomic status*	
Upper class	2 (1.05)
Upper middle class	7 (3.68)
Middle class	12 (6.32)
Lower middle class	37 (19.47)
Lower class	132 (69.48)

*Modified B.G. Prasad classification 2017[11]

Table 2: Antenatal details of study participants (n=190)

Antenatal Details	Women (%)
Antenatal registration	
First trimester	161 (84.74)
Second trimester	22 (11.58)
Third trimester	7 (3.68)
Gravida	
First	152 (80)
Second	27 (14.21)
Third	11 (5.79)
Place of registration	
Government hospital	95 (50)
Private hospitals	73 (38.42)
Medical colleges	22 (11.58)
Antenatal visits	
1	7 (3.69)
2	62 (32.63)
≥3	121 (63.68)
Intake of IFA and Calcium	
Yes	113 (59.47)
No	77 (40.53)
TT doses	
1	47 (24.74)
2	143 (75.26)
ANC package*	
Utilized	132 (69.47)
Not utilized	58 (30.53)

*≥3 visits, 2 TT doses, Iron and folic acid tablet intake

56.84% women had completed high school education and88.95% belonged to lower class of socio-economic status[(SES), Modified B. G. Prasad's Classification 2017- India].[11]

Table 3: Post natal details of study participants (n=190)

Post natal details	Women (%)
Post natal visits	
1	44 (23.16)
2	89 (46.84)
≥3	57 (30)
Continuation of IFA and Calcium	
Yes	39 (20.53)
No	151 (79.47)
Family planning	
Yes	122 (64.21)
No	68 (35.79)
Advice on Breast feeding practices	
Yes	162 (85.26)
No	28 (14.74)
Advice on Postpartum exercises	
Yes	25 (13.16)
No	165 (86.84)
Advice on Nutrition	
Yes	76 (42.46)
No	103 (57.54)
PNC package*	
Utilized	41 (21.58)
Not utilized	149 (78.42)

* ≥3 visits, Iron and folic acid tablet intake, Breast feeding and Nutrition education, Postpartum exercise, Family planning services

Table.2, shows antenatal details of study participants, where in 50% women took ANC services at government hospital. Majority of the women 84.74% had registered their pregnancy in first trimester and 63.68% of women had taken ≥3 antenatal visits. Two doses of TT injection were taken by 75.26% women and intake of iron and folic acid with calcium tablets was recorded among 59.47% of the women. 69.47% of women had utilized the complete ANC package.

Postnatal details of the study participants are depicted in Table.3, 30% of the women had availed a minimum of three postnatal visits. Majority of 79.47% women had not continued intake of iron and folic acid tablet during the postnatal period. 87.15% and 64.80% of women were educated about breast feeding practices and family planning services respectively. Larger number of women 86.84% were not advised regarding postnatal exercises and 94.97% of women were briefed about immunization of the newborn. The complete PNC package was utilized by only 21.58% of women.

Table 4, shows the association between socio-demographic characteristics and PNC package utilization. When parity of the women was compared, 95.12% primi mothers had utilized PNC services compared to only 4.88% multiparous women, which was statistically significant (χ^2=7.4722, df=1, OR=6.2124, 95% CI=1.4288-27.0110, p<0.05).

Table 4: Comparison of Sociodemographic characteristics with PNC package utilization

Characteristics	PNC package		Chi-square	df	p value	Odds Ratio	95%CI of OR
	Utilized (n=41) (%)	Not utilized (n=149) (%)					
Parity							
Primipara (n=152)	36 (95.12)	116 (75.84)	7.472	1	0.006*	6.212	1.429-27.011
Multipara (n=38)	5 (4.88)	33 (24.16)				Ref	
Literacy							
Illiterates (n=21)	1 (2.44)	20 (13.42)	3.946	1	0.047*	0.161	0.021-1.239
Literates (n=169)	40 (97.56)	129 (86.58)				Ref	
Socioeconomic status							
Upper class (n=09)	7 (17.07)	2 (1.34)	17.926	2	<0.001*	1(Ref)	
Middle class (n=12)	3 (7.32)	9 (6.04)				10.500	1.360 to 81.056
Lower class (n=169)	31 (75.61)	138 (92.62)				15.581	3.086 to 78.657

(*P value <0.05 indicates statistical significant).

This shows that primi mothers were more anxious and concerned about the events occurring during post natal period, so the utilization rate was higher in them. 97.56% of literates had used the PNC services when compared to 2.44% of illiterates, which was statistically significant. (χ^2=3.9457, df=1, OR=0.1613, 95% CI=0.0210-1.2395, p<0.05). This indicates that education of the women played a major role in availing the PNC services effectively. When socioeconomic class was considered, 75.61% lower socioeconomic status women had utilized the PNC services, when compared to 7.32% middle class women and 17.07% of women belonging to higher class, which was statistically significant (χ^2=17.9257,df=2,p<0.05). When utilization of PNC package was considered, it was found that women belonging to middle class [OR=10.5000 (CI=1.3602 to 81.0560)] and lower class [OR=15.5806 CI=(3.0863 to 78.6566)] had utilized more effectively in comparison to upper class. This shows that lower socioeconomic class women utilized all the schemes given under national health programmes because of lack of economical support whereas higher class women visited hospital only when they developed any complications during the postnatal period.

DISCUSSION

The present study was aimed at assessing the utilization pattern of postnatal care services and also to evaluate the probable factors modifying the utilization pattern. The overall utilization of postnatal package as a whole was 21.58% in the present study. This low rate of utilization was attributed to factors like literacy, parity of the women, sociocultural factors, socioeconomic status, awareness and availability of the services.

In the present study, it was found that 54.21% of the women were in the age group of 21-25years and 70% of them were Muslims, which was similar to a study done in Mumbai slums by Landge JA et al.,[8]where 40% of the women belonged to 26-30years and 84% were Muslims.

A study done by Uppadhaya SK et al.,[10]in Western Rajasthan, 12.63% of women had completed secondary schooling, which was in contrast to the present study, where 56.84% had studied till high school, this shows that women were better educated in the present study.

In the present study, it was found that 88.95% of the women belonged to lower socioeconomic status, whereas a study done by Bhimani NR et al.,[12] in Gujarat shows that 67.42% of women were from lower class.

In the present study, it was found that 69.47% of women had utilized complete ANC package which was in similarity to a study conducted in Chitradurga, Karnataka by M Kotresh et al.,[13]where 62% of women took the complete ANC package. This shows awareness and attitude towards ANC utilization was on a higher side and hence the services were adequately used.

21.58% of women had availed complete PNC services in the present study, which was less when compared to a study done by Begum J et al.,[14]in Amalapuram, Andhra Pradesh where the PNC utilization was 48.34%.

The PNC package utilization was also much lesser in comparison to a study done by Jat RT et al., in Madhya Pradesh where the PNC utilization package was 37.4%.[16] This may be due to lack of awareness of PNC services, other factors like financial constraints, customs and cultures of staying indoors during the postnatal period, all resulted in inadequate utilization of PNC services in the present study.

In a study conducted by Paudel DP et al.,[6]in Belgaum, Karnataka, it was found that during the postnatal period 61.3% women took three or more than three visits, 89% of them continued intake of iron, folic acid (IFA) and calcium tablets, 71.7% and

92.5% were advised about family planning services and breast feeding practices. Whereas, in the present study, 30% of the women had taken three or more than three visits, only 20.53% of them continued intake of calcium, iron and folic acid tablet, 64.21% and 85.26% were advised about family planning services and breast feeding practices respectively. Our study participants had low intake of IFA and calcium tablets, as they opined that these tablets will cause weight gain and will lead to further complications.

In the present study, the utilization of the maternal services was influenced by literacy, parity and socio-economic status which was in similarity to a study done in Davangere by Venkatesh RR et al., where socio-demographic factors like literacy status, occupation, type of family, parity and an unwanted pregnancy were found to influence the pattern of utilisation.[17]

CONCLUSION

The present study revealed that the utilization of PNC services was very dismal, which was influenced by the level of literacy, socioeconomic status and parity of the women. Primi mothers, who were educated availed the PNC services effectively, emphasizing the fact that literacy played a major role. Home visits by the healthcare workers and other health related personnel should be considered as mandatory during the postnatal period. Strategies need to be implemented by giving health education to the mother and community about the importance of PNC utilization for better living of the mother and her newborn.

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