ORIGINAL ARTICLE

Utilisation of Maternal Health Services and its Predictors in Slum Population

Singh Sadhna[1], Jain Kajal[2], Roy Debabratta[3], Kishore S[4], Gupta S. K[5], Kandpal S. D[3]

[1]Assistant Professor, Department of Community Medicine, SGRRIM & HS, [2]Associate Professor, Department of Community Medicine, SGRRIM & HS, [3]Professor, Department of Community Medicine, HIMS, [4]Professor, HOD, Department of Community Medicine, AIIMS Rishikesh, [5]Professor, HOD, Department of Community Medicine, SGRRIM & HS

Sadhna Singh.

ABSTRACT

Introduction: The particularly sorry plight of disadvantaged slum population with ample scope of further research into such areas as vulnerability to health risk and access to treatment, reduced economical choice and social support besides natural disasters and emotional stress of displacement. **Material & Methods:** An observational (cross-sectional) study was designed on a pre designed and pre tested questionnaire to understand women's fertility and contraceptive behavior and to study Socio behavioral Determinants of Utilization of MCH services. **Results:** The prevalence of <18 marriage was 78.03%. The teenage pregnancy was as high as 46.36% with 47.90% having parity of 4 or more. And of those not seeking ANC 53.42% did not feel the need for care during pregnancy. A very important finding was that 64.23% had home delivery and of these, 74% did not have any trained birth attendant. **Conclusion:** Levels of education in the family, caste, affordability (asset-holding) and accessibility were the factors which determined the utilization pattern. In general, those with better levels of education and those with better affordability preferred private practitioners and were willing to travel longer distances to avail health services as there was more awareness, motivation and felt need.

INTRODUCTION

An overview of women's health status, particularly disadvantaged, including itinerant migrants & slum inhabitants, as reviewed from published literature, presents a sobering picture. About one-third of the total disease burden among women aged 15 to 49 years in the developing countries is linked to health problems arising out of pregnancy, childbirth, abortion and reproductive tract infections (World Bank, 1993). The current focus on reproductive health in India is a result of the global recognition that these health needs have long been neglected and that the consequences of this neglect are devastating, particularly on the lives of women. Simultaneously, it is also acknowledged that the traditional population programmes which have focused narrowly on contraceptive prevalence have failed to address women's reproductive health needs.[1]

In view of the above highlighting the plight of disadvantaged population and ample scope of further research into such areas as vulnerability to health risk and access to treatment, reduced economical choice and social support besides natural disasters and emotional stress of displacement, an observational (cross-sectional) study was designed.

AIMS & OBJECTIVES

1. to observe the MCH practices including obstetric health of slum population
2. to study Socio behavioral Determinants of Utilization of MCH services.

Corresponding Author:
Singh Sadhna, Assistant Professor, Department of Community Medicine, SGRRIM & HS, Dehradun, India. E-mail: dr.sadhna.s@gmail.com

METHODS

Study Population
The present study was conducted among all families residing in make- shift arrangements along the river banks within 50 metres from the bank of river Ganga, Chandrabhaga, Song and Rispana in the slums/clusters of Adhoiwala, Deep Nagar, Rajeev Nagar and Malin Basti (Rispana), Chandra Bhaga (Chandra Bhaga, Ganga) and Keshav Puri (Song) in the district of Dehradun. The period of study was 06th June 2009 to 05th June 2010.

Study Subjects
Women of reproductive age group ever married (15-49 years) from the defined study universe.

Study design
Cross sectional, Community based survey

Sampling
The present study was conducted among all families residing in make-shift arrangements along the river banks within 50 metres from the bank of river Ganga, Chandrabhaga, Song and Rispana in the district of Dehradun which was randomly selected from among 20 slums situated along the river banks. All the ever married women in reproductive age group within 50 m. from the river banks were considered as study population and were interviewed on pre-desiegned and pre-tested questionnaire.

Study tools
Structured, pre designed and pre tested survey instruments was administered to study subjects

Data Management and Statistical Analysis
Generated data was collated and analyzed on the softwares SPSS (Version 17), EPI-Info 2003& Microsoft Excel 2007.
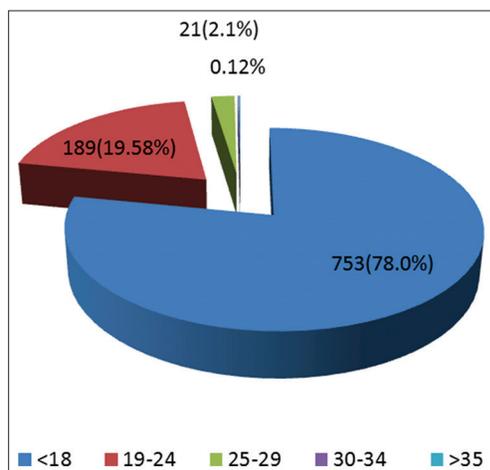
Statistical test for significance was applied on Chi-square distribution of data.

RESULTS

The Figure 1 shows the age-wise distribution of Age at Marriage of Study Subjects.It was seen that majority of

Table 1: Distribution of study subjects by history of abortion, place of abortion and age group (n=186)

Age group in years	Number of women with history		Total (n=186)
	Spontaneous abortion (n=128)	Induced abortion (n=58)	
15-19	1 (100)	0 (0)	1
20-24	21 (80.76)	5 (19.23)	26 (13.97)
25-29	44 (73.33)	16 (26.66)	60 (32.25)
30-34	21 (61.76)	13 (38.23)	34 (18.27)
35-39	27 (67.5)	13 (32.5)	40 (21.50)
40-44	8 (57.14)	6 (42.85)	14 (7.52)
45-49	6 (54.54)	5 (45.45)	11 (5.91)

Age group in years	Place of abortion				
	Govt.	Pvt.	Dai	None	Total
15-19	0 (0)	1 (100)	0 (0)	0 (0)	1 (100)
20-24	9 (34.62)	7 (26.92)	0 (0)	10 (38.46)	26 (67.74)
25-29	30 (50.0)	13 (21.66)	0 (0)	17 (28.33)	60 (32.25)
30-34	11 (32.26)	8 (23.53)	2 (5.88)	13 (38.23)	34 (18.28)
35-39	11 (27.50)	8 (25.0)	7 (17.50)	14 (35.0)	40 (21.50)
40-44	7 (50.0)	2 (14.28)	1 (7.14)	4 (28.57)	14 (7.52)
45-49	6 (54.54)	2 (18.18)	1 (9.09)	2 (18.18)	11 (5.91)

Figures in parenthesis represent percentage

Figure 2: Age at first Conception

Figure 1: Distribution of study subjects according to Age at marriage
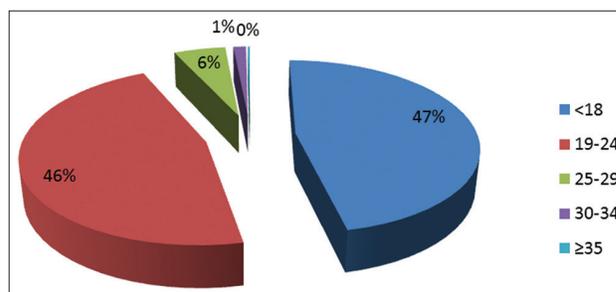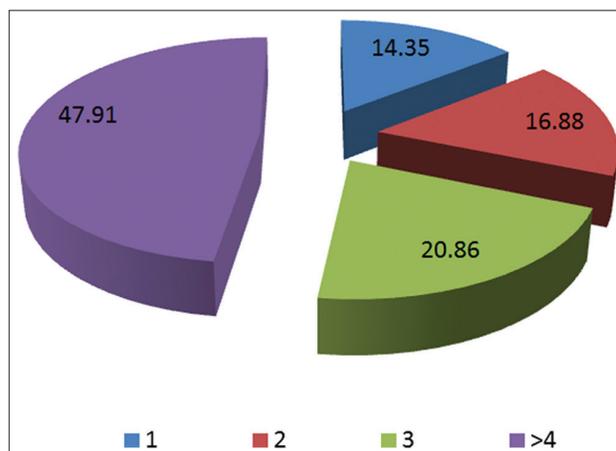

Figure 3: Distribution of study subjects according to parity

Study Subjects i.e. 753 (78.03%) got married at <18yrs of age.

The Figure 2 shows that maximum no. of study subjects i.e. 423 (46.68%) had their First Conception at age less than 18 yrs and another 420 (46.36%) had first conception between 19-24 yrs.

The Figure 3 illicits the fact that the majority of study subjects i.e 434 (47.90) had parity of 4 or more.

RCH Behavior/Practices [Table 1]

In the age-group wise distribution of No. of Abortions in Study Subjects,it was seen that maximum no. of Abortions i.e. 6o(32.25%) was in age group 25-29 yrs both for spontaneous and induced abortion.It was also observed that maximum no. of abortions have been in Govt. institutions in all the age groups and majority of abortions were in 25-29-yrs.

ANC Services

The Figures 4 & 5 show distribution of Study Subjects who have 'Ever Received ANC'. It can be seen that large no. & proportion i.e. 687 (75.83%) Study Subjects were the ones who 'Ever Received ANC', while only 139 (15.34%) received Complete ANC Package.
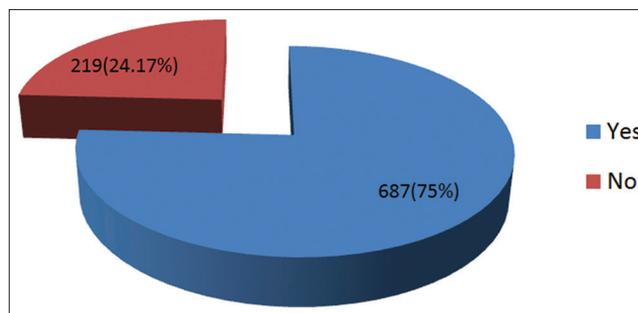

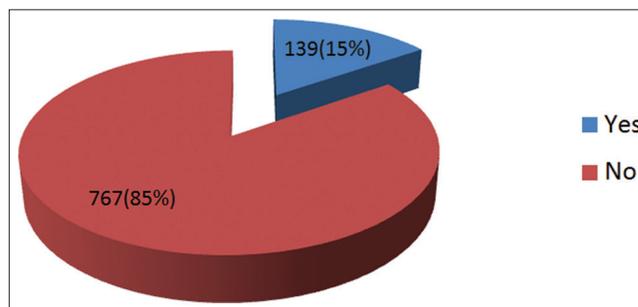**Figure 4:** Distribution of study subjects by number ever received ANC

Figure 5: Distribution of study subjects by number received ANC Package

Table 2: Distribution of study subjects by place of delivery, type of assistance at home delivery and reasons for not having institutional delivery

Delivery practices	No. of respondents	Percentage
Place of delivery		
Home	582	64.23
Sub centre	0	0
PHC	19	2.09
CHC/Govt.	237	26.15
Private	64	7.09
Any other	4	0.44
Assistance at home delivery		
Doctor	89	15.29
Nurse	15	2.57
Trained birth attendant	50	8.59
Untrained attendant	216	37.13
Relatives	212	36.42
Reason for not having Institutional delivery		
Need not felt	365	62.71
Service not available	47	8.07
Don't know where available	16	2.74
Not accessible	51	8.76
Expensive	14	2.40
Domestic liabilites	12	2.06
Don't trust quality of services by Govt.	15	2.57
Husband/in laws object	28	4.81
Others	34	5.84

Table 3: Distribution of study subjects by number ever used family planning, currently using and type of method used (n=965)

Family planning practices	No. of respondents	Percentage
Ever used FP		
Yes	564	58.44
No	401	41.56
Currently using FP		
Yes	548	56.78
No	417	43.22
Method currently used		
LAM	63	9.48
CC (condom)	102	15.36
OCP	55	8.28
IUD	132	19.90
Injectibles	3	0.45
Sterlization	177	26.65
Other	132	19.88
Reasons of unmet needs for contraception		
Don't know method	29	7.67
Against religion	18	4.76
Husband doesn't agree	25	6.61
In –laws don't agree	9	2.38
Not easily available	5	1.20
Not easily accessible	7	1.68
Inconvenient to use	27	6.47
Complications and side effects	110	35.57
Afraid of sterilization	36	8.63
Can't work after sterilization	7	1.68
Can't afford	4	0.98
Want a son	47	11.27
Others	53	12.71

Delivery

The Table 2 shows that maximum no. and proportion of Study Subjects i.e. 582 (64.23%) had Home Delivery followed by 237 (26.15%) had delivery in Govt. Hospital/CHC & majority of home delivery were attended by Untrained attendants i.e. 216 (37.11%).

Followed by 212 (36.42%) were attended by relatives. Majority of Study Subjects i.e. 365 (62.71%) did not feel the need for institutional delivery followed by 51 (8.76%) found the institution in-accessible.

Family Planning Services/Unmet Needs for Contraception

The Table 3 shows that out of a total of 965 Study Subjects 564 (58.44%) were the ones who have 'Ever Used FP' and 548 (56.78%) are currently using FP methods. Hence the unmet need for contraception is as high as 417 (43.22%).

The family planning method which is most popular is 'Sterlization' i.e. 177 (26.65%) Study Subjects have gone for it. The IUD and 'Others'(coitus interruptus, calendar method etc.) had equal number of users i.e. 132 (19.90%). The use of CC (Condom) was seen in 102 (15.36%) study subjects.

The max. no. and proportion of Study Subjects i.e. 587 (60.83%) travelled 1-3 km to seek medical advice. Only 29 (3.01%) travelled >5km to seek medical help.

Parity and Literacy

It can be seen from Table 4 that literacy status or education of study subjects had significant statistical association with parity 1 (p=0.0001), parity 2 (p= 0.006) and parity 4 (p= 0.000008).

Chi square distribution in the table above shows that place of abortion was a variable significantly associated with status of literacy of the study subjects; 'private' facilities as 'place of abortion' services had a strong significance (p<.01) of association with education of respondents.

The table reveals that education or status of literacy of the study subjects is very strongly associated with places of delivery irrespective of Home (p=.0000000), Govt. institution (p=.0000000) or Pvt. facility (p=.00007) ie. literate subjects preferred institutional delivery.

$$\chi = 27.39; \ p = 0.0000002$$

It can be observed from Table 5 that the study subjects' practice of Family Planning had strong statistically significant association with their literacy status or education (p<0.0000002).Hence educated subjects being more aware had 84 (28.57%) less unmet need.

Distance Travelled to Preferred Health Facility and Literacy

It was also seen that literacy status or education of the study subjects showed positive association with distance travelled to preferred health facility with a strong significance of association for the distance 3-5 kms. (p<0.000002).

Ever Using FP and Religion

It was found that proportion of study subjects ever using FP was max. i.e. 492 (58.64%) among Hindus followed by Muslims i.e 56 (53.84%); but no statistical significance was observed between ever using FP & religion (p>0.05).

Place of Delivery and Religion [Table 6]

On application of statistical test among study subjects of Hindu& Muslim religion according to place of delivery

Table 4: Distribution of study subjects according to parity and literacy

Parity	Literacy status (N=906) (%)		χ^2, p
	Illiterate (n=621)	Literate (n=285)	
1	70 (12.27)	60 (21.05)	14.42, 0.0001463
2	90 (14.50)	63 (22.11)	7.53, 0.00606
3	132 (21.26)	57 (20.00)	0.12, 0.73
>4	329 (52.98)	105 (36.84)	19.74, 0.0000089

Distribution of study subjects according to place of abortion and literacy

Place of abortion	Literacy status (N=286) (%)		χ^2, p
	Illiterate (n=140)	Literate (n=146)	
Govt.	43 (30.71)	31 (21.23)	6.50, 0.01
Pvt.	13 (9.28)	28 (19.17)	6.38, 0.01
Dai	10 (7.15)	1 (0.68)	8.06, 0.004
Home	74 (52.86)	75 (58.96)	0.06, 0.801

Place of delivery	Literacy status (N=906) (%)		χ^2, p
	Illiterate (n=671)	Literate (n=294)	
Home	466 (72.59)	116 (44.00)	65.58, 0.0000000
Govt.	143 (22.27)	113 (43.00)	37.88, 0.0000000
Pvt.	31 (4.83)	33 (13.0)	15.62, 0.000077
Any other	2 (0.31)	2 (0.40)	0.14, 0.712

Table 5: Distribution of study subjects according to ever using FP and literacy

Ever used FP	Literacy (N=965) (%)	
	Illiterate (n=671)	Literate (n=294)
Yes	354 (52.75)	210 (71.43)
No	317 (47.24)	84 (28.57)

χ^2=27.39; p=0.0000002

Table 6: Distribution of study subjects according to place of delivery and religion

Place of delivery	Religion (%)		χ^2, p
	Hindu (n=784)	Muslim (n=104)	
Home	476 (60.71)	91 (87.50)	28.54, 0.0000001
PHC/CHC (Govt.)	228 (29.08)	12 (11.53)	17.16, 0.000034
Pvt.	60 (7.65)	1 (0.96)	6.43, 0.01
Other	4 (0.51)	0 (0)	0.53, 0.46

Table 7: Distribution of study subjects according to place of delivery, distance travelled to health facility and socio-economic status

Place of delivery	Socio-economic status (%)		χ^2, p
	Upper (n=137)	Lower (n=769)	
Home delivery	77 (56.20)	505 (65.66)	4.13, 0.04
Govt. Institution	41 (29.90)	215 (27.96)	0.14, 0.712
Pvt. Institution	17 (12.40)	47 (6.12)	6.10, 0.013
Any other	2 (1.50)	2 (0.26)	1.57, 0.21

Distribution of study subjects according to distance travelled to health facility and SES

Distance to health facility	Socio-economic status (%)		χ^2, p
	Upper (n=179)	Lower (n=786)	
<1 km	12 (6.70)	152 (19.34)	16.50, 0.0000487
1-3 km	119 (66.48)	478 (60.81)	1.61, 0.20
3-5 km	48 (26.81)	141 (17.94)	7.29, 0.0069
>5 km	0 (0)	15 (1.91)	2.33, 0.04

i.e. Home (p=.0000001), Govt./CHC (p=0.000034) &Pvt. institute (p=.01) was found to have significant association.

Table 7 shows that SES of study subjects bear statistically significant association with. 'Home' (p=0.04) & 'Pvt. Institution' (p=0.013) as places of delivery.

The above table shows that statistically significant association could be observed between SES of study subjects and 'distance travelled to preferred health facility', namely, for <1 km (p=.000048), 3-5km (p=.0069) and >5km (p=.04).

DISCUSSION

Figure 1 shows that majority of study subjects i.e. 753 (78.03%) were married at <18 years of age.

Comparable studies in available literature, namely, by Das had evidence of more than half the women i.e 53% married before 18 years of age (1); likewise, Garg S in an urban slum of Delhi found 49.8% of females married before 18 yrs of age[2]; this may be explained by the differences in KAP attributes (RCH) of an itinerant/in-migrant sub-population and that of a general population.[3]

Distribution of study subjects according to Age at first conception (Figure 2) shows that largest proportion of study subjects i.e. 423 (46.68%) had conceived first at age <18 years.

Analogous observations by Ray SK et al at study in streets of Calcutta and by Das NP et al at a Baroda A slum[1,4] are available for comparison where similar findings i.e more than 20% study subjects had their first pregnancy at age of 17 yrs.

Further, as regards parity wise distribution of study subjects (Figure 3), most of the study subjects i.e. 434 (47.91%) had parity of either 4 or more.

1t can be observed from Table 1, that number and proportion of women with history of abortion, either spontaneous and or induced, was largest i.e 60 (32.25%) in the age group of 25-29 years followed by 40 (21.58%) in the age group of 35-39 years.

Wan J et al in a similar study with 'History of abortion' as a RCH variable found 34.8% women in age group 22-34 yrs had abortion.[5]

Further, most of the abortions in the present study i.e. 74 (39.78%) took place in Govt. institutions only (Table 1).

An analogous study for comparison by Das NP et al reported 50% of study subjects having terminated pregnancy at Govt. Institutions.[1]

As observed, for different study settings, proximity, availability of & accessibility to health providers/facilities & KAP of the respective study subjects may be determinants of abortion services.

Figure 4 in the present study reveals that as many as 687 (75.83%) of study subjects 'ever received ANC'.

Distribution of study subjects in terms of receiving 'ANC Package' or 'Complete ANC' (Figure 5) reveals that only 139 (15.34%) of the respondents that ever received ANC, were privileged to receive 'ANC Package' or 'Complete ANC'.

Comparable studies by Ray SK et al in Calcutta[6], Abrol A et al in Punjab[7] & Aggarwal OP et al in Delhi[8] Uddin MJ et al at a Dhaka[9] found only 3.8%, 10.5% &10.8% of respondents to have received complete ANC respectively. Four A's i.e Availability of & Accessibility to services; Affordability & Acceptability of the recipients for services at different study settings, besides KAP of the respondent in-migrants could be ascribed as factors responsible for insignificant proportion of pregnant women seeking/receiving 'Complete ANC'.

Table 2 shows that most of the study subjects i.e. 582 (64.23%) had delivered at home followed by 237 (26.15%) who delivered at Govt. facilities (CHC/PHCs).

It was found that most of the home deliveries were attended by either 'Untrained attendants' i.e. 216 (37.11%) or 'Relatives' i.e. 212 (36.42%).

The financial cost & geographic access were most important barriers to institutional delivery.

It can be seen from the Table 3 that from among a total of 965 eligible couples, 564 (58.44%) were the ones who 'Ever

used FP' Analogous study by Ray SK et al in streets of Calcutta observed scarce use of contraceptives i.e. 32%.[4]

It can be pointed out that concerted efforts by the public health system to reach out to the underserved/unserved population through re-enforced and mission approaches, may have positively influenced contraceptive behavior of the study population whereby more than half the eligible couples could report 'ever' using FP.

Table 3 reveal that from among those who ever used FP, 548 (56.78%) were 'Currently using FP' and that as many as 177 (26.65%) ECs had undergone sterilization; 132 (19.90%) were using either IUDs or 'Other' natural methods (Coitus interruptus, Calendar method etc.) and 102 (15.36%) & 55 (8.28%) of ECs currently used Condoms & OCP respectively. The large no. of study subjects had unmet need i.e 417 (43.22%) for contraception which should be addressed and in addition many were using unreliable methods like Coitus interruptus, Calendar method etc.

There was strong preference for terminal methods by those having completed family and having one or more sons as seen in a study by Mukherjee M et al.[10]

Table 4 from observation on the study population under discussion reveals that age at marriage had statistically significant association with levels of education or literacy status (p<0.05); also, the table shows literacy status of study subjects had causal association with their parity.

The NFHS 3 findings too re-inforced that educational status had strong association with average age at marriage which was found to be around 17 yrs.(NFHS III).[11] The study in comparable settings by Garg S et al further observed that higher parity was statistically associated with low literacy of her study subjects.[2]

It is comprehensible that literate females would be solvent and otherwise self dependent to define gender roles themselves and make important decisions including time of their marriage, regulating their fertility and thus take charge of their re-productive health.

Chi square distribution in Table 4, shows that place of abortion was a variable significantly associated with status of literacy of the study subjects; 'private' facilities as 'place of abortion' services had a strong significance (p<.01) of association.

Analogous study by Kavitha N et al in Coimbatore observed a positive association of women's' education on MCH services utilization.[12]

It is understandable that awareness of health need, choice of appropriate services and their quality, source etc.-all would be positively influenced by informed decision making of the 'educated' respondents.

Also, Table 4 reveals that education or status of literacy of the study subjects was very strongly associated with places of delivery irrespective of Home,Govt., Pvt. Institutional delivery was more common in aducated/literate study subjects.

The above observation was seconded by Kavitha N et al, Khandekar J et al from an urban slum of Allahabad and the one by Abrol A et al hypothesized that the women's' educational status was positively associated with use of antenatal and natal services as well as place of delivery.[7,12,13] Significant statistical association could be found between status of literacy of study subjects and type of assistance at home delivery in the present study.

Unmet need in contraception for population cross-cutting different socio-demographic settings has documented evidence of positive association with education level of ECs (NFHS III). Women's' fertility, sexuality and productivity- all of these logically bear considerable relationship with being 'informed' or educated so as to take pro-active decision on important matters including fertility regulation.

In a study by Thet A et al it was observed that time taken to travel to health centre (implying distance travelled) had a significant relationship with education of respondents.[14]

It was found that literacy status or education of the study subjects showed positive association with distance travelled to preferred health facility with strong significance of association.

That, 'accessibility' is an important determinant of health service utilization is an established fact and an important parameter for evaluating effective delivery of care. In light of the present study findings, it is probable that 'informed' and educated beneficiaries could identify 'health' as a priority need.

Across the available Indian study settings, 'Hindus' formed the dominant proportion in seeking either FP or ANC services- it would also be worthwhile to note that absolute number of respondents in most of the situations too was considerably more for Hindus.

However, as stated earlier, religion as an important social determinant/predictor can potentially influence community health seeking behavior vis a vis 'unmet need' in aspects of health including FP with women living on subsistence and subordinate to men.

In the present study, significant association was evident on application of statistical test between religion and place of delivery (Table 6).

Table 7 shows SES of study subjects bore statistically significant association with place of delivery as well. The household income was a key factor in utilization of maternal health services

In his study, Sinha S et al and The Peng Y et al in Beijing, China observed that females with higher family income preferred hospital delivery.[6,15]

In Table 7 statistically significant association could be observed between SES of study subjects and 'distance travelled to preferred health facility'. Besides in the study, a significant association of SES with 'distance travelled' to preferred health facility in the present study can be explained by the fact that affordability and otherwise resourcefulness, as explained earlier, would help facilitate negotiation of difficult –to- reach out-lets.

In general, women in slum remain unaware of their own reproductive health problems such as sexuality, concept of menstrual hygiene and family planning methods. Further risk involved in repeated pregnancies and proper utilization of antenatal and postnatal care. Hence it is necessary to impart knowledge about these reproductive health problems. Women in the urban slums are unaware of the existing health facilities and even if available it has been in adequately utilized.

Levels of education in the family, caste, affordability (asset-holding) and accessibility were the factors which determined the utilization pattern. In general, those with better levels of education and those with better affordability preferred private practitioners[16] and were willing to travel longer distances to avail health services as there was more awareness, motivation and felt need.

REFERENCES

1. Das NP, Shah Urvi. Understanding women's reproductive health needs in urban slums in India: A rapid assessment. 24th IUSSP General Population Conference; 2001 Aug; Salvador, Brazil.
2. G. Suneela., Meenakshi, Singh MMC, Mehra M. Percieved Reproductive Morbidity and Health care Seeking Behavior among Women in an Urban Slum. Health and Population-Perspectives and issues 24(4): 178-188.
3. Chatterjee M et al. Sparing lives: better reproductive health for por women in South Asia. New Delhi: World Bank. 2008; 266.
4. Ray SK, Biswas R, Kumar S. Reproductive health needs and care seeking behavior of pavement dwellers of Calcutta. Journal Indian Medical Association 2001; 99(3): 142-3,145.
5. Wan J, Qi Q, Li R, Feng Q. Study on reproducive heath and sexual behavior of the migrant population in Quindao city.Chin J Popul Sci.1998;10(1):39-53.
6. S Sinha. Outcome of Antenatal care in urban slum of Delhi. Indian Journal of Community Medicine 2006; 31(3).
7. Abrol A, Galhotra A, Aggarwal N, Goel NK, Bala A. Immunization Status In A Slum In Chandigarh (U.T.) India: A Perspective To Enhance The Service. The Internet Journal of Health 2009; 8(2).
8. Aggarwal O.P., Kumar R., Gupta A., et al. Utilisation of antenatal care services in peri-urban areas of east Delhi. Indian Journal of Community Medicine.1997; 22(1): 29-32.
9. Uddin MJ, Koehlmoos TL, Ashraf A, Khan AI, Saha NC, Hossain M. Health needs and health- care-seeking behavior of street-dwellers in Dhaka, Bangladesh. Health Policy and planning.2009; 24(5):385-394.
10. Dr. Mukherjee M, Kapilashrami MC, Kalaivan. Contraceptive Practices in Urban Slum of Delhi. 2004.
11. IIPS. Key Findings of NFHS-3(INDIA) & U.K. Mumbai. (2005-06 yr).
12. Kavitha N, Audinarayana N. Utilization and determinants of selected MCH services in rural areas of Tamil Nadu. Health and Population - Perspectives and Issues.1997; 20(3):112-125.
13. Khandekar J, Dwivedi S, Bhattacharya M, et al. Childbirth practices among women in slum areas. The Journal of Family Wefare. 1993.
14. Thet A, Sathirakorn P, Robson M G. Health Seeking Behavior Among Myanmar Migrant Workers in Ranong Province, Thail and. J Health Res. 2009:23(suppl):5-9.
15. Yingchun P, Cheng W, Zhou H, Hu Hongpu, Liang Wannian. Factors associated with health-seeking behavior among migrant workers in Beijing, China. BMC Health Services Research.2010;10:69.(website: http:/www.biomedcentral.com/1472-6963/10/69.
16. Chirmulay D. Factors affecting health seeking and utilization of curative of curative health care. BAIF Development and Research Foundation. 1997.