Original Research Article

Fertility behaviour and contraceptive use in urban slums of district Gorakhpur

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ABSTRACT

Background: Number of slums in India has increased significantly over the last decade (2001-11). Slums lack basic amenities and health care facilities. Very little is known about reproductive behaviour and use of family planning methods in slums. The objective of the study was to study the fertility behaviour and contraceptive use among eligible couples residing in slums of Gorakhpur district.
Methods: A cross sectional study was carried out between September 2013- August 2014 among 215 eligible couples in slums of Gorakhpur district using a semi-structured questionnaire.
Results: Mean age of marriage was 18.2 years, consummation of marriage was 18.9 year and 1st conception was 19.7 year. In age group 20-24 years, about 42% females had at least 2 children. About half of the females in the age group 25-29 years had 3 or more than 3 children. More than three fourth of eligible couples in age group 30- 34 and 35- 39 years had three or more than three children ever born. High sex preference was observed for male child. Couples with sex preference had bigger families. OCP and IUCD were commonly used in couples with age of wife less than 25 year. Use of condom was maximum in women >35 year. Use of emergency contraceptive was maximum in females in the age group 25-35 year. Use of DMPA and permanent sterilisation (Tubectomy) was higher in couples with age of female >25 year. None of the couples reported vasectomy.
Conclusions: Family planning needs of young eligible couples in slums needs to be addressed. Early marriage of females and Sex preference is a common practice in slums and needs consistent Social Behaviour Change Communication.

Keywords: Eligible couples, Fertility, Marriage, Consummation, Unmet need

INTRODUCTION

In the developing world, 881 million people were estimated to be living in slums in 2014 as compared to 792 million in 2000 and 689 million in 1990. The figure has been growing by about 9 million a year since 2000. The growth is not uniform across different regions.[1]

As per the census 2011, India's population stands at 1210 million of which about 27.78% population live in urban areas. Demographers estimate that by 2030 approximately two thirds of all people will live in large towns or cities. Number of slums have increased significantly from 1743 in the year 2001 to 2613 in the year 2011.[2] Increasing urban slum population with lack of basic amenities and health care facilities is leading to increased burden of health problems with morbidity and mortality, especially among young children and women of reproductive age group. About 65.5 million of Indian population lives in slums across 607 towns of the

country. Slum population of Uttar Pradesh is about 10 million.

Very little is known about reproductive behaviour and family planning utilization in the urban slums in India. To reach the goal of achieving the replacement level of fertility by 2010, it is imperative to understand the determinants of family planning practice for the people who are living in slum. Fertility pattern among eligible couples residing in slums of eastern UP has not been adequately documented. Hence this study was carried out in slums of Gorakhpur district to study the fertility behaviour and contraceptive use among the eligible couples.

METHODS

A cross-sectional study was done amongst 215 eligible couples living in slums of Gorakhpur district. The study period was one year from September 2014-August 2015. The study tool comprised a semi structured schedule. A sample size of 225 was calculated using the formula $4pq/d^2$, with p=37%, d=10% at 95% confidence interval including 25% as non-responder. Final analysis was done on data from 215 eligible couples. 30 slums were selected using WHO 30 cluster sampling from the list of slums obtained from district urban development authority. Seven eligible couples were selected from each cluster. Eligible couple residing in the slums for a period of more

than 6 months and who consented to participate were included. Those couples who had separated or consummation of marriage had not occurred were excluded. Ethical approval was sought from the institutional ethics committee.

RESULTS

Table 1 shows the fertility behaviour in eligible couples residing in slums of Gorakhpur city. Majority of females 70.2% got married between 18-21years of age. However about one-fourth of the females had got married before 18 years of age, which is matter of concern. About 76% of females were between 18-21 years of age at consummation of marriage and about 15% were below 18 years of age. Majority of female's i.e. 86% conceived by 21 years of age of which 10% conceived below 18 years. Mean age of marriage was 18.2 years and at consummation was 19.7 years, whereas mean age at first conception was 19.7 years. About 49% eligible couple had their first child within the 1st year after consummation of marriage. Although majority i.e. 87% of the pregnant women had the knowledge that ideal gap between subsequent children should be more than or equal to 3 years, but the mean birth interval between 1st and 2nd child was 2 years and that between 2nd and 3rd child was 2.9 years. Birth interval was found to increase with subsequent child birth.

Table 1: Age at marriage, consummation and first conception in females among eligible couples (n=215).

Age (years)	Marriage		Consummation		First conception	
	No.	%	No.	%	No.	%
<18	51	23.7	34	15.8	20	10.0
18-21	151	70.2	163	75.8	167	76.7
22-25	7	3.3	12	5.6	19	9.5
>26	6	2.8	6	2.8	9	4.5
Median age	18.0		18.0		19.0	
Mean age	18.27±2.82		18.9±2.33		19.72±2.55	

Table 2: Number of children ever born to eligible couples in slums (n=201).

Age of female (in years)	Number of children ever born				
	0	1	2	≥3	Total
15-19	3 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	3
20-24	3 (5.8)	19 (36.5)	23 (44.2)	7 (13.5)	52
25-29	4 (8.1)	6 (12.2)	19 (38.8)	20 (40.8)	49
30-34	0 (0.0)	0 (0.0)	14 (34.1)	27 (75.9)	41
35-39	1 (2.0)	0 (0.0)	4 (8.2)	44 (89.7)	49
40-44	0 (0.9)	0 (0.0)	0 (0.0)	12 (100.0)	12
45-49	0 (0.0)	0 (0.0)	0 (0.0)	9 (100.0)	9
Total	11 (5.1)	25 (11.6)	60 (27.9)	119 (55.3)	215

Table 2 shows the number of children ever born to women in the eligible couple with respect to her age. About 95% eligible couples had child birth. Females in the age group 15-19 years had no children. In age group 20-24 years, about 44% females had at least 2 children.

Similarly, about 41% of the females in the age group 25-29 years had 3 or more than 3 children. More than three fourth of eligible couples in age group 30-34 and 35-39 years had three or more than three children ever born.

This emphasis the unmet need for family planning in the age group 20-29 years.

Table 3 shows the relation between family size and sex preference. Sex preference was higher for male child compared to a girl child. Couples with sex preference had bigger families with more than 2 children compared to those without any sex preference. 61% eligible couples with a sex preference had more than 2 children compared to 45% eligible couples with no sex preference. Sex preference was higher in joint family, Hindu couples, those belonging to OBC (Other Backward Caste) and lower socioeconomic class.

Table 3: Family size in relation to sex preference among eligible couples in slums (n=215).

Family size	Sex preference for male child		Chi square, p value
	Yes (%)	No (%)	
>2	33 (61)	72 (45)	4.35, 0.37
≤2	21 (39)	89 (55)	
Total	54 (100)	161 (100)	

Table 4: Contraceptive method ever used by the couple with respect to age of the female.

Age (in years)	Contraceptives					
	Condom n (%)	OCP n (%)	IUCD n (%)	Emergency contraceptive n (%)	DMPA n (%)	Tubectomy n (%)
<25	5 (16)	9 (50)	9 (41)	0 (0)	0 (0)	0 (0)
25-35	10 (32)	7 (39)	7 (32)	6 (54.5)	2 (9.5)	8 (21.6)
>35	16 (51)	2 (11)	6 (27)	5 (45.5)	19 (90.5)	29 (78.4)
Total	31 (100)	18 (100)	22 (100)	11 (100)	21 (100)	37 (100)

Table 4 shows the use of contraceptives among eligible couples in urban slums. No contraceptive was used in couples with female less than 19 years of age. OCP and IUCD were commonly used contraceptive in couples with age of wife less than 25 year. Interestingly use of barrier contraceptive (i.e. condom) was very less among couples with young wife (<25 years age). Use of condom was maximum in women >35 year despite having high failure rate and most women having 2 or more children. Use of emergency contraceptive was not reported by women <25 year of age. It was maximum among females in the age group 25-35 year. Use of DMPA and permanent sterilisation (tubectomy) was higher in couples with age of female >25 year. None of the couples reported vasectomy.

DISCUSSION

The findings of the present study revealed that mean age at marriage of females in eligible couples was 18.27 years and about one fourth of the females were married before 18 years of age. Similar findings were reported in a previous study in slums of Lucknow city that reported a high incidence of early marriage below 18 years of age in about 39.5% women.[3] In the present study the mean age of consummation of marriage was 18.9 years. Similar findings were reported in previous studies by Saini et al, with mean age of consummation of marriage as 19.09 years.[4] Early marriage of females is a common practice in slums and needs consistent social behaviour change communication. Getting rid of responsibility of girl child early and fear of paying high dowry later because of not getting good match was a major reason forcing parents for early marriage.

In our study, mean age at first conception was 19.72 years. Similar result were reported by Puwar et al, in their study in slums of Ahmadabad that the mean age at first conception was 20.0 years.[5] This reflect a high unmet need for family planning (limiting births) among newly married eligible couples in urban slums. Interestingly use of condom was almost negligent in couples with young wife. Most women were conceiving within a year of marriage.

In the present study sex preference was higher for male child compared to a girl child. Couples with sex preference had bigger families with more than 2 children compared to those without any sex preference. A previous study by Kumar et al on National Family Health Survey (NFHS-2) data for UP also revealed that the son preference was proportionally related to family size. Smaller families had a significantly higher proportion of sons than large families.[6] Another study in slums of Calcutta also had similar results with regards to sex preference. All married women with one daughter desired another child, 90 percent desired son. With one son and no daughter 36 percent desired another son and rest 48% a daughter. In case of two children with both daughters, 87 percent wanted a son but no daughter while in case of two sons with no daughter only 30 percent desired a daughter. Sixty percent of the mothers with three daughters desired for a son while 40 percent did not want any more. In the parity four, the married women did not

desire for more children irrespective of sex composition of family.[7] Reason for sex preference especially male child was due to perceived economic, social and religious utility of sons compared to daughters.

In the present study 67% couples used one or the other method of contraception. NFHS 3 also revealed that overall use of contraception was 58%. A previous study by Pal et al in slums of Lucknow in 2001 had revealed that 43% women had ever used a contraceptive and 31% were current users.[3] The higher use of contraceptive reported in our study is because of easy access, better availability and concerted efforts to change social behaviour and increase awareness.

In the present study oral contraceptive pills and IUCD were commonly used contraceptive in couples with age of wife less than 25 year. Interestingly use of barrier contraceptive (i.e. condom) was very less among couples with young wife (<25 years age). Use of condom was maximum in women >35 year despite having high failure rate and most women having 2 or more children. A previous study in Bangladesh also had similar finding with oral pill was the most preferred method. Use of condom and male sterilization was very low. Use of any contraception and modern methods was higher among women aged 25-34 years.[8]

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