Socio Demographic Determinants and Knowledge, Attitude, Practice: Survey of Family Planning

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ABSTRACT

Background: Understanding of family planning scenario among different societies and communities, which by and large reside in urban slum and rural areas, might prove useful in increasing family planning acceptance by them and decreasing population growth. Objective: To assess the sociodemographic determinants and KAP of family planning among urban slum and rural areas of Lucknow. Study Design: Cross sectional. Setting: Bal Mahila Chikitsalaya, Aliganj, in urban and Primary Health Centre, Bakshi Ka Talaab, in rural area of Lucknow. Study Period: October 2008 to April 2009. Materials and Methods: Six hundred and eightytwo postpartum women (within 42 days of delivery) who came to these health facilities for their child’s vaccination were interviewed, by a preformed and pretested schedule. Results: Maximum utilization of family methods were seen among Hindu women, women of age group 30 or more, parity four and more, educational level upto high school and above and those of higher socioeconomic class. Although overall residential area (urban or rural) of women had no influence on the practice of family planning by them and all of them were willing to adopt family planning methods in future, urban women were found to have a higher level of knowledge and attitude toward modern methods of family planning. Only 2.8% were unsure of preferred method for future use. Conclusion: Family planning programs which effectively promotes the use of family planning methods, so that the trend toward increase in population could be arrested is the need of hour.

Keywords: Attitude, family planning, knowledge, practice, sociodemographic determinants

Introduction

The rapid increase of population has got an adverse effect on the national economy. In addition to this, increasing number of births has a deleterious effect on the health of the mother, which in turn hinders social and economic uplift of the family. High parity is related to increased maternal, perinatal and infant deaths and is also associated with nutritional problems of both mother and child. Considering the magnitude of the problem, many developing countries, India in particular, have given prime importance to family planning issue. The government of India launched a Family Welfare Program in 1950s to accelerate the economic and social development by reducing the population growth.¹⁰ However, this program has met with only marginal success. This is because people of India being multireligious, multilingual and multiethinic have different level of awareness and acceptance of family planning.¹⁵ Moreover, a large proportion of Indian population reside in urban slums and rural areas where poverty, misconceived religious notions, social customs, illiteracy, ignorance and superstitions prevail. Hence, the problem of non-acceptance of family planning becomes an acute one among these population sub-groups. To prevent the fruits of improvement in different sectors from getting eroded by growing population, it is necessary to develop a special program which can tackle the family planning needs of different groups. But before launching a special program, a thorough understanding of sociodemographic determinants, knowledge, attitude and practice (KAP) of family planning is essential. Thus, with this background, our study was conducted with the objectives to assess sociodemographic determinants and KAP of family planning between urban slums and rural areas of Lucknow.

Materials and Methods

The present study was conducted in urban slum and rural area of Lucknow city from October 2008 to April 2009 after obtaining the approval of institutional ethical committee. In the urban area, the present study was conducted in Aliganj area at Bal Mahila Chikitsalaya (BMC), a government maternal
and child health care center, established to cater maternal and child health (MCH) needs of basically the slum population of this area. Aliganj has a population of 1,67,802 including a slum population of about 50,000. In the rural area, this study was conducted in Bakshi Ka Talab (BKT) block, which has a population of 1,80,311, at Primary Health Centre (PHC), BKT, which covers a population of about 50,000. The study design was observational cross-sectional. For selecting the sample, all the consecutive post-partum women (within 42 days of delivery) who came for vaccination of their child to these health facilities were interviewed after getting informed consent until the required sample size was reached.

**Inclusion criteria**
Post-partum women (within 42 days of delivery) who were willing to participate were included in the study.

**Exclusion criteria**
Non-cooperative women who refused to furnish necessary information were excluded.

As per National Family Health Survey-III (NFHS-III), UP\(^{11}\) key indicators, current use of any family planning method in Uttar Pradesh is 43.6%. Based on this, the required sample size, as calculated by the formula,

\[
n = \frac{Z^2 \cdot P(1-P)}{d^2}
\]

works out to be 654, where \(P=0.44, \alpha=0.05, Z=1.96\) (for 95% confidence interval), \(d=5\%\) (margin of error).

However, in the present study, 682 women were included (341 urban and 341 rural), which is much more than the required sample size.

The study tool consisted of a schedule that was prepared at the Department of Community Medicine and Public Health, Chahattrapati Shahuji Maharaj Medical University, Lucknow, in consultation with guides after reviewing relevant literature on the topic. The schedule was initially tested on 10% of sample size; the lacunae were discussed and corrected as per recommendations of guides. The data collected was tabulated and analyzed. Descriptive statistics, Chi-square test, and Proportion test were used for data analysis.

**Results**

Table 1 shows that out of the total 682 respondents, majority of the women were of age group 21-25 years (50.6%), of parity one (35.6%), Hindus (85.6%), had no formal education (37.7%) and of socioeconomic class III (56.2%), according to the modified B.G. Prasad classification\(^{11}\). On applying the Chi-square test, statistically significant association was found between use of family planning methods by women and their age (\(P<0.001\)) and parity (\(P<0.001\)). No family planning method was used by women of age upto 20 years and parity one, whereas 84.8% women of age group upto 30 years and more and 96.8% women of parity group four and more used family planning methods. Religion was also found to have a significant association with utilization of family planning methods (\(P<0.001\)), i.e. more Hindu as compared to Muslim women used family planning methods. Education of women played crucial role in their utilization of family planning methods (\(P<0.001\)). The trend observed in utilization of family planning methods in relation to education level of women was that, among those who were educated upto high school and above, 82.8% used family planning methods, followed by those who were secondary educated (71.1%), then primary educated (45.7%), and least utilization was seen among the group of illiterate women (35.8%). A significant influence of the socioeconomic status (SES) of women was found on their utilization of family planning methods (\(P<0.001\)), i.e. use of family planning methods was more among women of higher SES. Only 3.6% women of socioeconomic class V and 18.3% of socioeconomic class IV used family planning methods as compared to 81.5% and 85.7% of socioeconomic classes III and II, respectively. Residential area of women (urban or rural) had no statistically significant association with use of family planning methods by them.

More than 90% of the women were aware about both male and

| Table 1: Sociodemographic determinants of family planning |
|-----------------------------------------------|
| **Sociodemographic determinants** | **Used any family planning method** |
| | **N=682** | **N=381** | **\(\chi^2\)** | **P value** |
| Age | | | | |
| Upto 20 | 15 (2.2) | 0 (0.0) | 93.17, \(d.f=3\) |
| 21-25 | 345 (50.6) | 143 (37.5) | <0.001, \(d.f=3\) |
| 26-30 | 276 (40.5) | 199 (52.2) | 521.96, \(d.f=3\) |
| More than 30 | 46 (6.7) | 39 (10.2) |
| Parity | | | | |
| 1 | 256 (37.5) | 0 (0.0) | 521.96, \(d.f=3\) |
| 2 | 237 (34.8) | 203 (53.3) | <0.001, \(d.f=3\) |
| 3 | 158 (23.2) | 148 (38.8) | \(d.f=3\) |
| 4 and more | 31 (4.5) | 30 (7.9) |
| Residence | | | | |
| Urban | 341 (50.0) | 201 (52.8) | 2.62, \(d.f=1\) |
| Rural | 341 (50.0) | 180 (47.2) | 0.105, \(d.f=1\) |
| Religion | | | | |
| Hindu | 584 (85.6) | 357 (93.7) | <0.001, \(d.f=3\) |
| Muslim | 98 (14.4) | 20 (5.2) | \(d.f=1\) |
| Education | | | | |
| Illiterate | 257 (37.7) | 92 (24.1) | 168.0, \(d.f=3\) |
| Primary | 127 (18.6) | 58 (15.2) | \(d.f=1\) |
| Secondary | 135 (19.8) | 96 (25.2) | \(d.f=3\) |
| HS and above | 163 (23.9) | 135 (35.4) | \(d.f=3\) |
| SES* | | | \(283.36, <0.001\) |
| II | 28 (4.1) | 24 (85.7) | \(d.f=3\) |
| III | 383 (56.2) | 312 (81.5) | \(d.f=3\) |
| IV | 235 (34.5) | 43 (18.3) |
| V | 36 (5.3) | 2 (5.6) |

*Socioeconomic status as per Modified B.G. Prasad Classification (CPI July 2009)
female sterilization, pills, intra-uterine contraceptive device (IUCD), condoms, and traditional methods (breastfeeding, withdrawal and rhythm method) of family planning [Table 2]. Among urban 27.3% and among rural 10.1% of women were also aware of modern methods (emergency contraception, injectables and vaginal tablets). Only 0.9% (0.7% urban and 1.2% rural) women were unaware of any method of family planning. On applying proportion test, a statistically significant difference was seen in knowledge about modern methods ($P<0.001$) between urban and rural women.

Among urban 41.1% and among rural 47.2% of women did not use any family planning method in past [Table 3]. Most common method used in both urban and rural areas was condom (23.2% urban and 34% rural) followed by traditional methods in rural (10.6%) and injectables in urban (9.4%), whereas least used methods were traditional methods in urban (6.7%) and injectables in rural (1.2%). On statistical comparison between urban and rural areas, difference was significant in the use of pills ($P<0.001$), IUCD ($P<0.05$), condoms ($P<0.001$) and injectables ($P<0.001$).

All the women, both in urban and rural area, were willing to adopt a family planning method in future [Table 4]. The difference in preferences for future method of family planning between urban and rural areas for modern and traditional methods was statistically significant ($P<0.001$). Highest level of preference for future use was seen for condoms in rural area (44.6%) whereas modern methods in urban area (32.3%). Female sterilization was at almost equal preference in both urban (33.8%) and rural (36.5%) areas. The least preferred methods were the traditional methods in urban (1.2%) and modern methods (4.2%) in rural area. Only 2.1% urban and 3.5% rural women were found unsure of preferred method for future use.

The sources of information about family planning methods showed statistically significant differences between urban and

### Table 2: Distribution of women according to knowledge about family planning methods

| Family planning methods* | Urban (n=341) | Rural (n=341) | Z value | P value |
|--------------------------|--------------|---------------|---------|---------|
| No method                | 2 (0.7)      | 4 (1.2)       | 0.67    | 0.25    |
| Female sterilization     | 337 (98.8)   | 332 (97.4)    | 1.34    | 0.09    |
| Male sterilization       | 326 (95.7)   | 314 (92.2)    | 1.92    | 0.03    |
| Pills                    | 334 (97.9)   | 317 (93.0)    | 3.07    | <0.05   |
| IUCD                     | 335 (98.2)   | 329 (96.5)    | 1.38    | 0.08    |
| Condoms                  | 337 (98.8)   | 335 (98.2)    | 0.64    | 0.26    |
| Other modern methods*    | 93 (27.3)    | 34 (10.1)     | 5.76    | <0.001  |
| Traditional methods*     | 315 (92.4)   | 322 (94.4)    | 1.05    | 0.15    |

*Multiple responses. (*) (Other modern methods include emergency contraception, injectables and vaginal tablets.) (Traditional methods include breastfeeding, withdrawal method and rhythm method.) IUCD: Intra-uterine contraceptive device

### Table 3: Distribution of women according to family planning methods used in past

| Family planning method used | Urban (n=341) | Rural (n=341) | Z value | P value |
|----------------------------|--------------|---------------|---------|---------|
| Pills                      | 43 (12.6)    | 14 (4.1)      | 4.01    | <0.001  |
| IUCDs                      | 24 (7.0)     | 10 (2.9)      | 2.47    | <0.05   |
| Condom                     | 79 (23.2)    | 116 (34.0)    | 3.12    | <0.001  |
| Injectables                | 32 (9.4)     | 4 (1.2)       | 4.78    | <0.001  |
| Traditional methods*       | 23 (6.7)     | 36 (10.6)     | 1.81    | 0.04    |
| None                       | 140 (41.1)   | 161 (47.2)    | 1.60    | 0.05    |
| Total                      | 341 (100.0)  | 341 (100.0)   |         |         |

* (Traditional methods include breastfeeding, withdrawal method and rhythm method.) IUCD: Intra-uterine contraceptive device

### Table 4: Distribution of women according to preferred method of family planning for future use

| Preferred methods*         | Urban (n=341) | Rural (n=341) | Z value | P value |
|----------------------------|--------------|---------------|---------|---------|
| Female sterilization       | 115 (33.8)   | 124 (36.5)    | 0.74    | 0.23    |
| Pill                       | 81 (23.8)    | 106 (31.1)    | 2.14    | <0.05   |
| IUCDs                      | 43 (12.6)    | 25 (7.3)      | 2.31    | <0.05   |
| Condom                     | 79 (23.2)    | 152 (44.6)    | 5.90    | <0.001  |
| Other modern methods*      | 110 (32.3)   | 14 (4.2)      | 9.49    | <0.001  |
| Traditional methods*       | 4 (1.2)      | 131 (38.4)    | 12.19   | <0.001  |
| Unsure of method           | 7 (2.1)      | 12 (3.5)      | 1.11    | 0.13    |

*Multiple responses. (*) (Other modern methods include injectables and vaginal tablets.) (Traditional methods include breastfeeding, withdrawal method and rhythm method.) IUCD: Intra-uterine contraceptive device
Table 5: Distribution of women according to source of knowledge about family planning methods

| Source* | Urban (n=341) | Rural (n=341) | Z value | P value |
|---------|--------------|--------------|---------|---------|
|         | No. (%)      | No. (%)      |         |         |
| Radio   | 226 (66.4)   | 119 (35.0)   | 8.20    | <0.001  |
| Television | 274 (80.2)   | 110 (32.3)   | 12.61   | <0.001  |
| Newspaper or magazine | 126 (37.0) | 22 (6.5) | 9.65 | <0.001 |
| Wall paintings or hoardings | 155 (45.5) | 79 (23.2) | 6.13 | <0.001 |
| Doctors | 163 (47.8)   | 104 (30.5)   | 4.63    | <0.001  |
| Health workers | 91 (26.7) | 332 (97.4) | 19.02 | <0.001 |
| Other sources† | 227 (66.6) | 215 (63.0) | 0.98 | 0.33 |

*Multiple responses. †(Other sources include family members, neighbours, relatives and friends)

In the present study, women of higher age and parity used family planning methods more than those of lower age and parity. NFHS-III, India[1] reported more use of family planning methods by women of higher age group and parity. Mohanan et al,[8] also highlighted that acceptors of contraception were of higher age and parity. The prominent reason for this finding was that couples usually start using family planning methods only after they have reached desired family size which usually corresponds to older ages and higher parities of women. Use of family planning methods increased sharply with education and SES of women in this study. According to Mohanan et al,[8] a significant influence of monthly income was found on acceptance of family planning methods but education level of women was not found an influencing factor in acceptance of family planning. NFHS-III India,[1] also found that more use of family planning methods was seen in women of higher wealth index. Women of higher educational level and SES are more likely to be aware and able of taking care of their health and hence avoid pregnancies by use of family planning methods. More Hindus as compared to Muslims used family planning methods in this study. NFHS-III, India[1] also reported more use of family planning among Hindus as compared to Muslims. Mohanan et al,[8] noted that religion played important role in determining family planning acceptance. Among Muslim women, non-acceptors of family planning were found to be highest in their study. In our study, most of the Muslim women who did not use family planning methods reasoned religious beliefs and husband’s decision for non-acceptance.

This study revealed that overall residential area had no influence on use of family planning methods. NFHS-III India[1] showed that more urban than rural women used family planning methods. Thereason for this discordance with the above study may be that accredited health activists (ASHAs) appointed in rural areas were able to convince rural women for more use of family planning methods. However, in the case of few aspects like knowledge and use of modern methods of family planning, disparities were still found existent. This can be attributed to the ignorance of the rural women regarding advanced contraceptives and partly due to the lack of efforts on the part of ASHA who need to be sensitized during training and orientation programs so that family planning front is more efficiently dealt by them.

In the present study, good knowledge and a favourable attitude towards the future use of family planning methods was seen. These findings were also found by NFHS-III, India.[1] According to Renjhen et al,[2] almost all (98%) women had knowledge and a favourable attitude towards family planning. Srivastava et al,[9] found that a majority population of their study was well aware of female sterilization but had a very poor knowledge of temporary methods of family planning. Rao et al,[7] pointed out that family planning knowledge was wide spread in their study area and all the respondents were aware of at least one method of contraception. In our study, the main reason given by women who had favourable attitude towards family planning was, that it limits the family and reduces expenditure.

As per the present study, practice of family planning was 55.9%, whereas use of contraceptives was reported 55.2% by NFHS-III India,[1] 56.3% by Renjhen et al,[2] and 44.2% by Srivastava et al[9]. Rao et al,[7] reported in their study on fishermen that 70% were ever users of some form of family planning. The adoption of family planning was found hampered probably on account of fear of side effects and misconceptions about family planning and hence appropriate measures are called for removing existing fears and doubts about the use of family planning methods among the people.

Conclusion

This study showed that utilization of family planning methods was found more in women of higher age group, parity, education and SES whereas their residential area (urban or rural) was not found an influencing factor on practice of family planning by them. The urban-rural gap was found bridged to a considerable extent with respect to family planning, yet aspects like dispersing information about efficacy of modern contraceptives need to be addressed. The study also revealed a good knowledge...
and favourable attitude towards future use of family planning methods. All the women interviewed were in favour of practicing family planning. However, only 55.9% women were found to have used some form of family planning.

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