SHORT ARTICLE

# Knowledge, source and practice of spacing methods of contraception among eligible women of Varanasi slums

**Payal Singh[1], Akash Mishra[2], Ravindra Nath Mishra[3]**

[1]Research Scholar, Division of Biostatistics, Department of Community Medicine, Institute of Medical Science, Banaras Hindu University, Varanasi -221005, Uttar Pradesh; [2]Research Scholar, Ph.D. Scholar, Department of Biostatistics, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry; [3]Professor, Division of Biostatistics, Department of Community Medicine, Institute of Medical Science, Banaras Hindu University, Varanasi -221005, Uttar Pradesh.



## Corresponding Author

Prof. Ravindra Nath Mishra, Division of Biostatistics, Department of Community Medicine, Institute of Medical Science, Banaras Hindu University, Varanasi -221005, (Uttar Pradesh), India
E Mail ID: rnmishra_prem@rediffmail.com

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## Abstract

**Background**: Still many Indian states observe low spaced births and high fertility; mostly contributed by disadvantaged society. Factors influencing are entrenched in ignorance, male child desire and traditional culture to some extent. **Aim and Objectives**: To determine knowledge and practice of spacing methods of contraception and the associated socio-demographic variables. **Methods and Material**: A community based cross-sectional study on 590 eligible couples of slum of Varanasi, by two stage stratified random sampling. **Statistical analysis used**: Knowledge and practice were described in percent and the associated factors identified by logistic regression. Significance was judged at $\alpha = 0.05$. **Results**: Overall knowledge of any spacing methods was in only 61.2% women and practice ever in married life was 44.4%; those knowing methods, ever practice was only 66.2%. Knowledge was mostly through husband for condom, health professional for Cu-T and oral pills. **Conclusion**: Eligible couples of slum community need knowledge of contraception as well as motivation to practice spacing methods to reduce higher level of fertility.

## Keywords

Contraception; Spacing Methods; Fertility

## Introduction

Excessive replacement slows down the socio-economic development of the nation. It is always emphasized that developing nation should move to reduce fertility (1). In India, continued effort resulted TFR reduction, still effort is required to reach replacement level (2). Though, 21 States and Union Territories reached their TFR level 2.1 or even less; however, TFR of 10 states that is between 2.1-3.0 and rest 7 major states e.g. Bihar, Uttar Pradesh, Dadara & Nagar Haveli, Rajasthan, Madhya Pradesh, Meghalaya and Jharkhand are still with TFR 3.0 or above (3). In India during 2006; 28.7% and 63.4% births were with spacing below 24 and below 36 months and out of children born with birth spacing less than 24 months 57.21% were underweight compared to 29.62% with birth spacing more than 48

(4,5). Due to this low birth spacing, most infants (65% of the total deaths) in India die during neonate's period (3). In India, the ratio of slum population to urban population is 22.58% (2011 Census) and is predicted to increase to 33% by 2026 (6,7,8). And the TFR in urban poor is 2.8; 43% couple move for higher order births.

## Aims & Objectives

1. To assess the knowledge and practice of spacing methods of contraception
2. To identify the associated socio-demographic variables with poor practices.

## Material & Methods

A cross-sectional community-based study was conducted among 590 representative eligible couples of slum community of Varanasi. The couples were selected following two stage stratified random sampling with proportional allocation. At first stage stratification was based on size of the slum and at second stage size of the caste class groups. Knowledge and practice were assessed in percent and logistic regression was carried to identify the associated factors. Significance was judged at on $\alpha = 0.05$.

## Results

The overall knowledge of any spacing methods among eligible couples was 61.2% and only 44.4% had ever practiced in their married life. Even those who knew the methods, ever practice were only in 66.2%. Sources of knowledge about the contraception were mostly husband for condom, health professional for Cu-T and oral pills. The overall users in last seven years of these methods were very low (30%) but it was 100% among those who knew. Nearly half knew male condom; while one fifth and one third knew Cu-T and oral pills respectively knew (Table-1)&(Table 2). Though, bivariate results are also presented in the (Table-3); but only logistic regression analysis finding are discussed as it is obtained after eliminating the confounding effects. In logistic regression only incidence of child death, number of births, religion, type of house living in and educational attainment of wife emerged to influence the practice of spacing methods. Compared to eligible couples who had any loss of child due to death, the likelihood of using spacing methods of contraception was very less who had not observed child death (AOR = 0.24; 95% CI: 0.08- 0.72). Compared to eligible couples with three or more live births; the practice among those with two live births were lesser (AOR = 0.32; 95% CI: 0.14 - 0.76) while almost similar among those with no or one live births. Among Hindus, practice of spacing methods was more than 11 times (AOR = 11.11; 95% CI: 1.28-100.00) than Muslims. Eligible couples living in Semi-Pakka houses were 0.53 less likely to practice compared to those living in Pakka houses while those living in either huts or Kachcha houses, their practice of spacing methods was almost similar to those living in Pakka houses. Compared to women with > 10 standard of schooling, the practice of spacing methods was 2.74 times (95% CI: 1.19 – 6.30) higher among those either illiterate or had schooling up to 5th standard.

## Discussion

India had observed substantial decline in TFR resulted due to rise in marriage age and acceptance of spacing and terminal methods of contraception. Still effort is required to reach replacement level (2). The slums constitutes substantial proportion of the population with high level of fertility; the reason behind is poor knowledge and practice of contraception. The present study reveal that only about three fifth of the eligible couples (61.2%) had knowledge of any of the methods of spacing methods. However, in spite of knowledge almost one third of them had not practiced spacing methods in last 7 years either due to desire of child or lack of motivation. Among these who knew, prevalence of condom was the highest (46.8%) followed by oral pills (29.2%) and Cu-T (19.8%). Srivastava in Gorakhpur reported condom as the most commonly used contraceptive (34.5%).(9) Major source of information of condom was husband and of oral pills and Cu-T the medical professionals. In a study by Khokar A et al in Delhi among 206 women, prevalence of contraception reported was little higher (45.1%) (10) than this study. The study revealed very high use rate in those experienced loss of child; it is in fact these women are of higher aged and since given more births; in these probability ofloss of child is expected to be higher. Among Muslims, the practice was very less compared to Hindus. Number of births, if more than three; practice of spacing methods were about 3 times higher than those with two or less children. This indicates that community once realize a larger family size pressure, then and only then adopt contraception.Eligible couples living in Semi-Pakka

houses were 0.53 less likely to practice compared to those living in Pakka houses while those living in either huts or Kachcha houses, their practice of spacing methods was almost similar to those living in Pakka houses; which reflects the ignorance and importance of small family size. Though, almost all studies, report education playing a role in acceptance of spacing methods, butcompared to women with > 10 standard of schooling, the practice of spacing methods was 2.74 times (95% CI: 1.19 – 6.30) among those either illiterate or had schooling up to 5th standard. The reason is, mostly these couples are of higher age and have reached larger family size and had practice.

## Conclusion

Eligible couples of slum community need knowledge of contraception as well as motivation to practice spacing methods to reduce higher level of fertility.

## Recommendation

As slum community is a substantial population, nearly 7% of the country population; non practice of spacing methods will lead to low spaced births that will increase the morbidity and mortality of born and will affect the nutritional status of mother as well as born if survive.

## Limitation of the study

Since, Muslims live in the colonial form, the selected slum was not of Muslim residents; hence couples are not adequately represented for Muslim community.

## Relevance of the study

Urban Health Administrator will get support to formulate guidelines for betterment of health of slums.

## Authors Contribution

All authors have contributed equally in this manuscript.

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## Tables

### TABLE 1 KNOWLEDGE, SOURCE OF KNOWLEDGE AND PRACTICE OF SPACING METHODS

| Variables | Male condom | |
|---|---|---|
| | No. | % |
| **Knowledge (n = 590)** | 361 | 61.2 |
| **Practiced ever (n = 590)** | 239 | 40.4 (66.2% who knew) |
| **Practice in last seven years (n =403)** | 121 | 30.0 (100% who knew) |
| **Sources (n = 361)** | | |
| **Husband** | 223 | 61.8 |
| **Family members** | 57 | 15.8 |
| **Doctors** | 169 | 46.8 |
| **Health Workers** | 25 | 6.9 |
| **TV** | 87 | 24.1 |
| **Book/News Paper/Magazine** | 7 | 1.9 |

## TABLE 2 KNOWLEDGE, SOURCE OF KNOWLEDGE AND PRACTICE OF VARIOUS TYPES OF SPACING METHODS

| Knowledge, source & practice | Male condom | | Cu-T | | Oral Pills | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| **Knowledge (n = 590)** | 276 | 46.8 | 117 | 19.8 | 172 | 29.2 |
| **Practiced ever** | 145 | 52.5 | 74 | 63.2 | 75 | 43.6 |
| **Sources** | N = 276 | | N = 117 | | N = 172 | |
| **Husband** | 217 | 78.7 | 4 | 3.4 | 0 | 0 |
| **Family members** | 04 | 1.5 | 0 | 0 | 53 | 30.8 |
| **Doctors** | 10 | 3.7 | 57 | 48.8 | 102 | 59.3 |
| **Health Workers** | 2 | 0.73 | 23 | 19.7 | 0 | 0 |
| **TV** | 42 | 15.2 | 30 | 25.7 | 15 | 8.8 |
| **Book/News Paper/Magazine** | 1 | 0.36 | 3 | 2.6 | 2 | 1.2 |

## TABLE 3 DETERMINANTS OF PRACTICE OF SPACING METHODS IN RECENT PAST (IN LAST SEVEN YEARS) BY ELIGIBLE COUPLES

| Characteristics | N | % users | p value based on $\chi 2$ | $\beta$ | Wald | P value | AOR | 95% CI of AOR |
|---|---|---|---|---|---|---|---|---|
| **Age (years)** | | | | | | | | |
| **Below 30** | 313 | 26.5 | 0.014 | 0.76 | 0.93 | 0.334 | 2.14 | 0.46 - 10.01 |
| **30 - 40** | 80 | 41.3 | | -0.08 | 0.01 | 0.914 | 0.92 | 0.19 - 4.23 |
| **30 & above** | 10 | 50.0 | | Ref. | -- | -- | 1.00 | -- |
| **Any child death** | | | | | | | | |
| **No** | 381 | 28.1 | 0.000 | -1.44 | 6.45 | 0.011 | 0.24 | 0.08 – 0.72 |
| **Yes** | 22 | 63.6 | | Ref. | -- | -- | 1.00 | -- |
| **No. of a live births** | | | | | | | | |
| **No/one** | 178 | 22.5 | 0.011 | -0.96 | 3.49 | 0.062 | 0.38 | 0.14 - 1.05 |
| **Two** | 113 | 38.1 | | -1.13 | 6.63 | 0.010 | 0.32 | 0.14 - 0.76 |
| **Three or more** | 112 | 33.9 | | Ref. | -- | -- | 1.00 | -- |
| **Family size** | | | | | | | | |
| **5 or less** | 348 | 27.6 | 0.007 | 0.75 | 2.15 | 0.143 | 2.12 | 0.78 - 5.76 |
| **More than 5** | 55 | 45.5 | | Ref. | -- | -- | 1.00 | -- |
| **Male living children** | | | | | | | | |
| **None** | 161 | 19.9 | 0.004 | 0.14 | 0.05 | 0.833 | 1.15 | 0.31 - 4.29 |
| **One** | 148 | 37.8 | | -0.51 | 0.64 | 0.423 | 0.60 | 0.17- 2.08 |
| **Two** | 72 | 34.7 | | -0.57 | 0.82 | 0.364 | 0.56 | 0.16 - 1.94 |
| **Three or more** | 22 | 36.4 | | Ref. | -- | -- | 1.00 | -- |
| **Religion** | | | | | | | | |
| **Hindu** | 375 | 31.2 | 0.013* | 2.38 | 4.78 | 0.029 | 11.11 | 1.28 – 100.00 |
| **Muslim** | 18 | 5.6 | | Ref. | -- | -- | 1.00 | -- |
| **Caste** | | | | | | | | |
| **General/OBC** | 149 | 27.5 | 0.400 | 0.33 | 1.54 | 0.215 | 1.38 | 0.83 -2.32 |
| **SC/ST** | 254 | 31.5 | | Ref. | -- | -- | 1.00 | -- |
| **Family type** | | | | | | | | |
| **Nuclear** | 389 | 29.0 | 0.024 | 1.01 | 2.32 | 0.127 | 2.74 | 0.75 - 10.01 |
| **Joint** | 14 | 57.1 | | Ref. | -- | -- | 1.00 | -- |
| **Type of house** | | | | | | | | |
| **Hut/Kachcha** | 15 | 46.7 | 0.129 | -1.14 | 3.16 | 0.075 | 0.32 | 0.09 - 1.12 |
| **Semi-Pakka** | 116 | 34.5 | | -0.64 | 5.26 | 0.022 | 0.53 | 0.31 - 0.91 |
| **Pakka** | 272 | 27.2 | | Ref. | -- | -- | 1.00 | -- |
| **Education of husband** | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **No/1-5th standard** | 121 | 32.2 | 0.434 | -0.36 | 0.64 | 0.422 | 0.70 | 0.29 - 1.67 |
| **6th to 10th standard** | 196 | 27.0 | | 0.27 | 0.53 | 0.465 | 1.32 | 0.63 - 2.77 |
| **> 10th standard** | 86 | 33.7 | | Ref. | -- | -- | 1.00 | -- |
| **Education of Wife** | | | | | | | | |
| **No/1-5th standard** | 176 | 25.6 | 0.228 | 1.01 | 5.58 | 0.018 | 2.74 | 1.19 - 6.30 |
| **6th to 10th standard** | 141 | 33.3 | | 0.32 | 0.71 | 0.401 | 1.37 | 0.66 - 2.87 |
| **>10th standard** | 86 | 33.7 | | Ref. | -- | -- | 1.00 | -- |
| **Occupation of husband** | | | | | | | | |
| **Unskilled worker** | 79 | 30.4 | 0.449 | -1.25 | 2.45 | 0.118 | 0.28 | 0.06 - 1.37 |
| **Skilled/shop/driver** | 306 | 30.7 | | -1.38 | 3.18 | 0.074 | 0.25 | 0.05 - 1.15 |
| **Service (Govt./Pvt.)** | 18 | 16.7 | | Ref. | -- | -- | 1.00 | -- |
| **Occupation of wife** | | | | | | | | |
| **Unskilled worker** | 19 | 31.6 | 0.697 | -0.21 | 0.12 | 0.733 | 0.81 | 0.24 - 2.74 |
| **Skilled worker/shop** | 30 | 36.7 | | -0.22 | 0.21 | 0.644 | 0.81 | 0.32 - 2.01 |
| **HW/Service** | 354 | 29.4 | | Ref. | -- | -- | 1.00 | -- |

*AOR: adjusted odds ratio