

DOI: <https://dx.doi.org/10.18203/2320-1770.ijrcog20204799>

## Original Research Article

# Knowledge-utilization gap regarding modern methods of contraception among rural women attending an outreach health centre in North Delhi

Shyambhavee Behera, Kartikey Yadav\*

Department of Community Medicine, Lady Hardinge Medical College, New Delhi, India

**Received:** 15 August 2020

**Accepted:** 28 September 2020

**\*Correspondence:**

Dr. Kartikey Yadav,

E-mail: drkartikeyy@gmail.com

**Copyright:** © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

### ABSTRACT

**Background:** Even with nearly five decades of launch of the programme, only half of the eligible couples in the country are using any modern method of contraception and 12% still have an unmet need for family planning, as per National Family Health Survey 4 (NFHS 4). The current study aims to estimate the knowledge and use of the contraceptive practices and its socio-demographic determinants among women (15-49 years) attending Health Centre in a rural village of North Delhi.

**Methods:** A cross sectional study was conducted in July, 2018 at outreach Rural Health Training Centre (RHTC) in North Delhi. Hundred currently married women in the reproductive age group (15-45 years) coming to outreach centre participated in the study. The study participants were interviewed using pretested, semi structured questionnaire.

**Results:** Although 96% of the study participants had knowledge regarding any of the modern method of contraception, only 57% were using them (including condom, OCP, IUCD and sterilization). Reasons for not using any kind of contraception included poor reliability, lack of proper knowledge regarding availability and use, partner opposition and willingness to have a child.

**Conclusions:** Although knowledge about contraceptives was good, the utilization was very low. Even in presence of established and ever-expanding services available, the current study reported a remarkable gap in the individual contraceptive knowledge and utilization. Thus, providing correct knowledge to the couple as a single unit and its reiteration at regular interval becomes the pivot in filling this knowledge-utilization gap.

**Keywords:** Contraception, Knowledge, Practice, Rural women, Utilization,

### INTRODUCTION

India was the first country in the world to commence a family planning program in 1952.<sup>1</sup> Even with nearly five decades of launch of the programme with multiple reformations, as per time and need, only half of the eligible couples in the country are using any modern method of contraception and 12% still have an unmet need for family planning, as per National Family Health Survey 4 (NFHS 4).<sup>2</sup> Also, Contraceptive Prevalence Rate (CPR) of 60% or more is a prerequisite to achieve

the required Net Reproductive Rate (NRR) of 1.<sup>3</sup> Target 3.7, of Sustainable Development Goal (SDG) 3, addresses the same, to “ensure universal access to sexual and reproductive health-care services, including family planning” by 2030.<sup>4</sup> Unintended pregnancy still stands as a major public health concern with nearly half of the pregnancy reported as unintended, in the year 2015.<sup>5</sup> In order to achieve the required score for the set target indicators, correct knowledge regarding the availability and use of modern methods of contraception becomes essential, especially among women residing in rural

areas. Access to right contraceptive at the right time is one of the vital components in achieving optimal maternal and child health. Provision of knowledge as well as basket of modern methods of contraception at the lowest tier of health care delivery system has a large role in augmenting the knowledge and use of contraceptive among the eligible beneficiaries. Even in presence to such expansive program, a knowledge as well as utilization gap still exists that needs to be addressed.

Aim of the study was to estimate the knowledge and use of the contraceptive practices and its socio-demographic determinants among women (15-49 years) attending Health Centre in a rural village of National Capital Region of Delhi.

### METHODS

A cross sectional study was conducted in outreach Rural Health Training Centre (RHTC) in North Delhi. It was done in the month of July, 2018. Taking CPR as 56.6% as per NFHS 4 data for Rural National Capital Region of Delhi, for a Confidence Interval (CI) of 95% and absolute error of 10%, a sample size of 94 was calculated using the formula  $n = [Z^2 * P(1-P)] / e^2$ , where Z = value from standard normal distribution corresponding to desired confidence level (Z=1.96 for 95% CI), P = prevalence, e = permissible error.6 It was rounded off to 100.

All the currently married women in the reproductive age group (15-45 years) coming to outreach centre were invited to participate in the study, and consent was obtained from all of them who were willing to participate. The RHTC, which is attached to a Medical College of Delhi, provides reproductive health and counselling services to the eligible women attending the health centre. The centre also conducts regular Information, Education and Communication (IEC) activities to sensitize and reinforce the knowledge regarding Reproductive Health Services. Convenience sampling method was used to recruit the study participant and reach the required sample size.

The study participants were interviewed using pretested, semi structured questionnaire. The data collection tool was divided into three sections including socio-demographic details, knowledge and usage regarding contraceptives. Socio-demographic details included age of the participant, age at marriage, religion, education, occupation and socio-economic status of the study participants. Information regarding knowledge and use of various methods of contraception, including natural methods was collected in the second and third section of the questionnaire. Information regarding knowledge and use of emergency contraceptive methods was also collected.

Data were entered and cleaned using Microsoft Excel and analyzed in Statistical Package for Social Science version 20.0 (SPSS 20.0). Continuous variables were expressed

as mean with standard deviation (SD). Categorical variables were presented as proportions. Chi square test was used to test the statistical association of contraceptive awareness and use with the socio-demographic characteristics of the study participants. P-value less than 0.05 was considered statistically significant.

### RESULTS

The mean age of study participants was 26.46 + 3.73 years. The mean age at marriage was 17.58 + 2.92 years. Thirty-five percent of women had more than two children and rest had 1-2 children. Table 1 shows distribution of socio-demographic characteristics of the study participants.

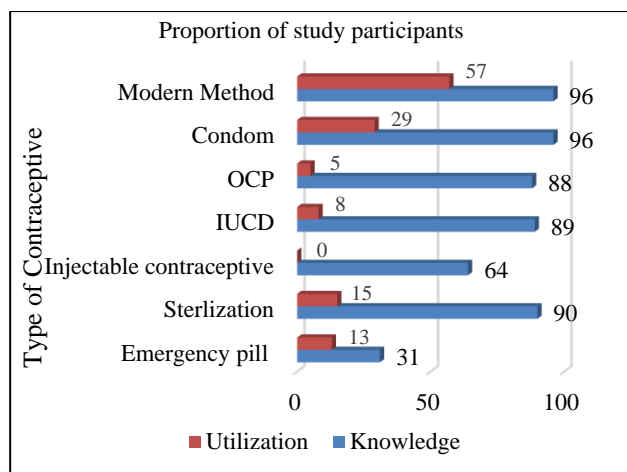
**Table 1: Socio demographic details of the study participants (n=100).**

Socio demographic characteristic	Frequency (percentage)	
<b>Age (in years)</b>	16-25	51 (51)
	26-35	49 (49)
<b>Age at marriage (in years)</b>	≤15	34 (34)
	16-20	49 (49)
	21-25	17 (17)
<b>Religion</b>	Hindu	96 (96)
	Muslim	4 (4)
<b>Education</b>	Illiterate	36 (36)
	Literate	64 (64)
<b>Occupation</b>	Unemployed	91 (91)
	Employed	9 (9)
<b>Socio-economic Status<sup>^</sup></b>	Upper	4 (4)
	Middle	50 (50)
	Lower	46 (46)

<sup>^</sup>As per modified B.G. Prasad scale

Although 96% of the study participants had knowledge regarding any of the modern method of contraception, only 57% were using them (including condom, OCP, IUCD and sterilization) (Figure 1). Nearly 80% of the participants who were using any contraceptive had completed their family and 20% were using them for spacing. Source of knowledge regarding modern methods of contraception among the 96 participants included social media (14%), family and friends (67%), and healthcare professionals including ASHAs (37%). Most commonly used method of contraception was condom (29%), followed by sterilization (15%), IUCD (8%) and OCP (5%).

Only 31% of the study participants were aware of emergency contraception and almost half of them had used them in the past. None of the study participant had the knowledge regarding IUCD, as a method of emergency contraception. Out of 57 participants who were currently using any method of contraception, almost half of them were utilizing private facilities to avail contraceptive services.



**Figure 1: Awareness and utilization of modern methods of contraception among study participants.**

Reasons for not using any kind of contraceptive included poor reliability, lack of proper knowledge regarding availability and use, partner opposition and willingness to have a child. Reason for discontinuation among those who had used the contraceptive in the past were due to side effects of the contraceptive used.

**Table 2: Association of utilization of contraceptives with the socio-demographic characteristics of the study participants.**

Socio-demographic characteristics		Current use of any modern method of contraception <sup>#</sup> (n=57)
Age (in years)	16-25	27 (52.9)
	26-35	30 (61.2)
	P value	0.403
No. of children	≤2	31 (47.7)
	>2	26 (74.3)
	P value	0.009
Age at marriage (in years)	≤15	23 (65.7)
	16-20	21 (43.8)
	21-25	13 (76.5)
	P value	0.028
Religion	Hindu	54 (56.3)
	Muslim	3 (75.0)
	P value	0.632*
Education	Illiterate	20 (55.6)
	Literate	37 (57.8)
	P value	0.827
Occupation	Unemployed	52 (57.1)
	Employed	5 (55.6)
	P value	1.000*
Socio-economic Status <sup>^</sup>	Upper	4 (100)
	Middle	25 (51.0)
	Lower	27 (59.6)
	P value	0.145*
<b>Total</b>		<b>57 (100)</b>

<sup>^</sup>As per modified B.G. Prasad scale, \* Fisher's exact test.

Table 2 shows association of contraceptive utilization and the sociodemographic characteristics of the study participants. Statistically significant association was observed between current use of contraceptives with number of children (>2) (p=0.007), and age at marriage (p=0.025).

**DISCUSSION**

Knowledge and adoption of family planning methods is one among many important factors (including age at marriage, literacy, level of living etc.) that attributes to fertility in any given area. The country had shown a declining trend of the Total Fertility Rate in the past few years (2.9 in 2005 to 2.2 in 2017), but is yet to achieve the replacement level.<sup>7</sup> The family planning programme under the RMNCH+A, now provides a basket of modern family planning methods including, temporary (IUCDs, injectable (DMPA), oral contraceptive pills (hormonal and non-hormonal), condoms, emergency contraceptive and permanent methods (female and male sterilization) of contraception.<sup>7</sup>

Majority of the studies including the current study concluded presence of significant knowledge regarding any kind of modern method of contraception.<sup>8-16</sup> Most known method was condom followed by sterilization and, OCP and IUCD. A study by Gaikwad et al. reported female sterilization as the most known method followed by IUCD, OCP and condom.<sup>7</sup> Quereishi et al. conducted a similar study in rural Chhattisgarh and reported a varying sequence with maximum knowledge regarding sterilization and minimum being IUCD and condoms.<sup>13</sup> This variability within the studies can be attributed to the availability and promotion of specific kind of contraceptive in a given locality or region. Although knowledge regarding any kind of contraceptive used was almost universal, a knowledge gap still remains regarding other methods, with least knowledge about the newer methods including injectables and emergency contraception.<sup>15</sup> Thus, empowering these women with the knowledge of all the modern methods, made available by the government will not only help in augmenting the utilization but also will allow them to choose the best suitable method which still remains far off to them in view of mere lack of knowledge.

Emergency contraception serves as a last and imperative option to address this issue and also to prevent a significant number of abortions. Less than one-third of the study participant were aware about the emergency contraceptive methods. Almost similar findings were reported in a study conducted by Sahu et al. in Delhi.<sup>17</sup> However, almost 90% participants reported to have knowledge about emergency contraceptive method in studies done among college girls and also in rural area of Delhi.<sup>9,14</sup> Knowledge regarding IUCD, as a mode of emergency contraception was not seen among any study participant.

Even in the presence of knowledge, mere 57% of the study participants were using any kind of contraceptive, with half of them still relying on the traditional natural methods. This knowledge and utilization gap was also reported by many studies conducted within as well as outside the country.<sup>8,9,11,13,16-18</sup> With the ever evolving family planning programme, multiple iterative studies conducted to assess the knowledge and utilization of the contraceptive over time, still records this gap that remains unfulfilled, even with the easy accessibility to the available methods of contraception.

Among the modern contraceptives used, condom was most commonly used by the study participants followed by sterilization, IUCD and OCP. None of the study participant were using injectables as method of contraception. However, a study by Kushal et al reported OCP and condom as the most accepted method of contraception.<sup>11</sup> A study done in rural Africa however reported pills and injectables, as the most common methods used.<sup>18</sup> This variability again can be attributed to the different methods available in specific areas or region. Even though, 80% of the users were had completed their family, majority of them were using only barrier method. Given the wide range failure rates of barrier methods, with higher rates in presence of deficient knowledge can again act as a barrier in averting unwanted pregnancies and abortion rates.

Major barriers to contraceptive use, as reported in the current study were, poor reliability, insufficient knowledge, partner opposition and faced side effects due to contraceptive used. Sarella et al also reported the same barriers.<sup>10</sup> Other reasons included unavailability, lack of felt need and desire for more children.<sup>11</sup> Majority of the barriers reported by most of the studies can be credited to be due to lack of knowledge about the availability, use and side effects of the available modalities that can addressed by community involvement and repeated reinforcement in the community as well as all levels of healthcare system. Basic unit of contraceptive utilization is couple as a single unit. Hence, sensitization of the male partner also becomes a major factor while addressing these barriers.

Socio-demographic factors forms a major determinant of contraceptive utilization practices. Age at marriage and higher number of children were found to be significantly associated with contraceptive use in the current study. Although current study did not report any significant association with the educational status. Other studies reported significant association with socio demographic characteristics like age, education, occupation, income and religion.<sup>11,12,18</sup> The findings in the current study can also be attributed smaller sample size and different study population.

## CONCLUSION

Although knowledge about contraceptives was good, the utilization was very low. Even in presence of established and ever-expanding services available, the current study reported a remarkable gap in the individual contraceptive knowledge and utilization. Thus, providing correct knowledge to the couple as a single unit and its reiteration at regular interval becomes the pivot in filling this knowledge-utilization gap. Addressing the gap especially among rural women again becomes a challenging task in view of the prevalent cultural practices and their accessibility to health care services. Hence, empowering them with sufficient knowledge and provision of easy access to utilize the gained knowledge becomes the need of the hour.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: Not required*

## REFERENCES

1. National Health Portal. National Programme for Family Planning. NHP, India. Available at [https://www.nhp.gov.in/national-programme-for-family-planning\\_pg](https://www.nhp.gov.in/national-programme-for-family-planning_pg). Accessed on 20 June 2020.
2. Indian Institute for Population Sciences (IIPS) and Ministry of Health and Family Welfare (MoHFW). National Family Health Survey-4, India Fact Sheet. 2020. Available at <http://rchiips.org/NFHS/pdf/NFHS4/India.pdf>. Accessed on 20 June 2020.
3. Park K. Textbook of Preventive and Social Medicine, 25th edition. M/S Banarsidas Bhanot Publications. 2019:544.
4. UN Department of Economic Affairs. Goal 3 Ensure health lives and promote well-being for all at all ages. United Nations. Available form: <https://sdgs.un.org/goals/goal3>. Accessed on 1 July 2020.
5. Singh S, Shekhar C, Acharya R, Moore AM, Stillman M, Pradhan MR, et al. The incidence of abortion and unintended pregnancy in India, 2015. *The Lancet Global Health.* 2018;6(1):e111-20.
6. Indian Institute for Population Sciences (IIPS) and Ministry of Health and Family Welfare (MoHFW). National Family Health Survey-4, State FactSheet NCT Delhi. 2020. Available at [http://rchiips.org/NFHS/pdf/NFHS4/DL\\_FactSheet.pdf](http://rchiips.org/NFHS/pdf/NFHS4/DL_FactSheet.pdf). Accessed on 1 July 2020.
7. National Health Mission. RMNCH+A, Family Palnning. Ministry of Health and Family Welfare, India. Available at <https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=821&lid=222>. Accessed on 1 August 2020.
8. Gaikwad S, Sirohi S, Rokade R, Raja RS, Deshmankar B, Banzal S. A study on contraceptive knowledge, attitude and practice (KAP) among women attending family planning clinic of a private



- hospital of western India. *Int J Recent Trends Sci Technol.* 2015;13(3):585-8.
9. Relwani N, Saoji A, Kasturwar NB, Nayse J, Junaid M, Dhattrak P. Emergency contraception: exploring the knowledge, attitude and practices of engineering college girls in Nagpur district of central India. *National J Community Med.* 2012;3(1):14-9.
  10. Sarella LK, Prasanna NSL. A study on contraceptive knowledge, attitude and practice among reproductive age group women in a tertiary institute. *Int J Res Health Sci.* 2014;2(2):577-80.
  11. Kaushal SK, Saxena SC, Srivastava VK, Gupta SC, Nigam S. KAP study on contraceptive methods in Kanpur district of UP. *Indian J Comm Health.* 2010;22(1):33-8.
  12. Singh A, Singh KK, Verma P. Knowledge, attitude and practice GAP in family planning usage: an analysis of selected cities of Uttar Pradesh. *Contracep Repro Med.* 2016;1(1):20.
  13. Quereishi MJ, Mathew AK, Sinha A. Knowledge, attitude and practice of family planning methods among the rural females of Bagbahara block Mahasamund district in Chhattishgarh State, India. *Glob J Med Public Heal.* 2017;6(2):1-7.
  14. Gupta RK, Singh P, Gupta C, Kumari R, Langer B, Gupta R. Emergency contraception: knowledge, attitude and practices among recently married females in a rural area of North India. *Int J Res Med Sci.* 2017;5(10):4450-4.
  15. Anusuya S, Patil S. Contraceptive methods: knowledge, practice and their attitude among the women of rural population in and around Bangaluru City of Karnataka State, India. *Indian J Public Health Res Dev.* 2019;10(7):257-60.
  16. Agarwal M, Samanta S, Bhusan D, Anant M. Assessing knowledge, attitude, and practice of contraception: a cross-sectional study among patients in a semi-urban tertiary hospital. *Int J Reprod Contracept Obstet Gynecol.* 2017;6(2):720-4.
  17. Sahu M, Chhabra P, Gautam V. Knowledge and parity: Perspectives of usage of emergency contraceptive pills among women of a rural area of Delhi. *Nigerian Med J.* 2019;60(3):117-21.
  18. Phoibe K, Frederic TM, Ntaganira J. Assessment of knowledge, attitudes, and practice on contraceptive use among women attending family planning services in some health centers of muhima district hospital, Rwanda. *Open Sci J.* 2017;2(3):1-17.

**Cite this article as:** Behera S, Yadav K. Knowledge-utilization gap regarding modern methods of contraception among rural women attending an outreach health centre in North Delhi. *Int J Reprod Contracept Obstet Gynecol* 2020;9:4494-8.