

Exploring the Factors Influencing the Knowledge-utilization Gap of Sexual and Reproductive Health Services among Rural Women in Lucknow (U.P) Region

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Abstract

According to the National Family Health Survey 4 (NFHS 4), despite almost 50 years since the program's inception, only half of eligible couples in the nation use any modern type of contraception, and 12% still have unmet family planning needs. In the current study, we assess the awareness and usage of contraceptive practises among women (15–49 years old) visiting a health centre in a rural Lucknow hamlet and its sociodemographic factors. Even though 96% of the study's participants were aware of current methods of contraception, such as condoms, OCPs, IUCDs, and sterilisation, only 57% of them actually used them. Poor dependability, incorrect information about availability and use, partner antagonism, and a desire to have children are some of the justifications given for not using any form of contraception. Although there was good awareness of contraceptives, there was very little use. According to the results of the current study, there is a notable gap between individual understanding and use of contraceptives. Therefore, imparting accurate knowledge to the couple as a whole and repeating it on a regular basis becomes the key to closing this knowledge-utilization gap.

Keywords: Rural women, utilisation, knowledge, and practice of contraception.

1. Introduction

To support women's reproductive health and well-being, contemporary contraceptive techniques must be used. Effective contraception lowers the incidence of unwanted pregnancies, maternal mortality, and unsafe abortions in addition to enabling women to plan their pregnancies.⁹ Nevertheless, despite the many advantages, there is frequently a gap between understanding of and use of contemporary contraceptive methods, especially in rural areas. Rural communities confront particular difficulties with regard to healthcare access, a lack of resources, and cultural norms that affect decisions about reproductive health⁸. These elements contribute to the knowledge-utilization gap, which occurs when women may be somewhat aware of current contraceptive methods but do not use them effectively to meet their needs for reproductive health. It is critical to comprehend the exact causes of the knowledge-utilization gap among rural women visiting a Lucknow outreach health centre in order to close it. To close the gap and enhance the reproductive health outcomes for this population, it is possible to develop targeted interventions and strategies by identifying these determinants. Studies have demonstrated that access to healthcare facilities; socioeconomic status, cultural attitudes, educational level, and availability of contraceptive methods are all factors that affect people's

understanding of and use of contemporary contraception^{6,8}. Women's access to proper knowledge on contemporary contraceptive methods may be hampered in rural areas by a lack of educational possibilities and socioeconomic constraints^{4,5}. Furthermore, cultural norms and conventional gender roles may feed myths and misconceptions regarding contraception, which could discourage people from using contemporary techniques⁶. The underutilization of modern contraceptive services is further exacerbated by the understaffing of healthcare professionals and the subpar infrastructure in rural health centres⁴. Therefore, the purpose of this article is to look at the factors that affect the knowledge-utilization gap among rural women visiting a Lucknow outreach health centre. The study will shed light on these elements in order to design policy initiatives, educational programmes, and targeted interventions that would close the gender gap and enhance reproductive health outcomes for rural women.

2. METHODS

In the present research, a cross-sectional study was conducted at an outreach Rural Health Training Centre (RHTC) located in Sarojni Nagar Lucknow. To determine the appropriate sample size for the study, certain parameters were considered. The Contraceptive Prevalence Rate (CPR) for the Rural Region of UP, as reported in the National Family Health Survey 4 (NFHS 4) data, was taken as 42%. The researchers aimed for a Confidence Interval (CI) of 95% and an acceptable relative error of 20%. Using these parameters, the researchers calculated the required sample size using the formula given below for the study.

$$n = \frac{Z_{1-\alpha/2}^2 p(1-p)}{\xi^2 p}$$

The formula for sample size calculation was given below applied, resulting in a sample size of 133 participants. All currently married women between the ages of 15 and 45 who visited the outreach centre were given an invitation to participate in the study. All those who indicated their ready to participate gave their agreement, and participation was contingent upon their willingness. Women who qualify for care at the health centre can get reproductive health services and counselling from the outreach centre, which is connected to a medical college in Delhi. In order to increase awareness and solidify knowledge regarding reproductive health services, the centre also frequently engages in Information, Education, and Communication (IEC)-focused initiatives. A convenience sampling strategy was used to select study participants in order to obtain the needed sample size. Participants in the study had interviews using a semi-structured questionnaire that had been pretested. Three elements made up the questionnaire used to gather the data: sociodemographic information, knowledge about contraceptives, and contraceptive use. Participant characteristics such age, age at marriage, religion, education, occupation, and socioeconomic level were covered in the socio-demographic information section. The participants' awareness of and use of various contraceptive techniques, including natural methods, was elicited in the questionnaire's second and third sections. Additionally, information on the use and awareness of emergency contraception techniques was gathered. Microsoft Excel was used to enter and process the collected data, and the Statistical Package for Social Science version 18.0 was used to conduct the analysis. Continuous variables were given as

mean values and their related standard deviations (SD). Categorical variables were displayed as proportions. The chi-square test was used to determine the relationship between participants' sociodemographic factors and their knowledge about and use of contraceptives. To identify associations, a p-value of less than 0.05 was regarded as statistically significant.

3. Result

The average age of the study participants was 26.46 years, with a standard deviation of 3.73 years. With a standard deviation of 2.92 years, researchers determined that the average age at marriage was 17.58 years. Women made about 35% of the participants, with the remaining individuals having 1-2 children on average. Please refer to Table 1 for a complete breakdown of the socio-demographic characteristics of the study participants. This table shows how these variables are distributed.

The detailed breakdown of the socio-demographic characteristics of the study participants. In terms of age, 46.4% of the participants fell within the age range of 15 to 25 years, comprising 65 individuals. Another 34.3% of the participants were aged between 26 and 35 years, totalling 48 individuals. The remaining 19.3% were above the age of 35, accounting for 27 individuals. When considering the age at marriage, it was found that 30.0% of the participants were married before the age of 15, consisting of 42 individuals. The age range of 15 to 20 years constituted 41.4% of the participants, with 58 individuals falling into this category. Additionally, 28.6% of the participants were married between the ages of 20 and 25, making up a total of 40 individuals. Examining religious affiliation, the majority of participants identified as Hindu, representing 51.4% of the total sample size. This group consisted of 72 individuals. Muslims accounted for 42.9% of the participants, with 60 individuals belonging to this religious group. Lastly, 5.7% of the participants identified as Sikh, totalling 8 individuals. Regarding occupation, a small proportion of the participants, specifically 8.6%, reported being employed (12 individuals). The majority, comprising 91.4% of the participants, identified as non-employed, resulting in a count of 128 individuals. Analysis of the number of children among the participants indicated that 24.3% had less than two children (34 individuals). The category of 2 to 3 children accounted for 42.1% of the participants, with 59 individuals falling into this group. Moreover, 33.6% of the participants reported having more than three children, totalling 47 individuals. Finally, the socio-economic status according to BG prasad scale the participants was determined. A small percentage, 5.7%, belonged to the upper socio-economic status category, accounting for 8 individuals. The majority, 55.7%, fell within the middle socio-economic status, comprising 78 individuals. Additionally, 38.6% of the participants were classified as belonging to the lower socio-economic status, with 54 individuals falling into this group.

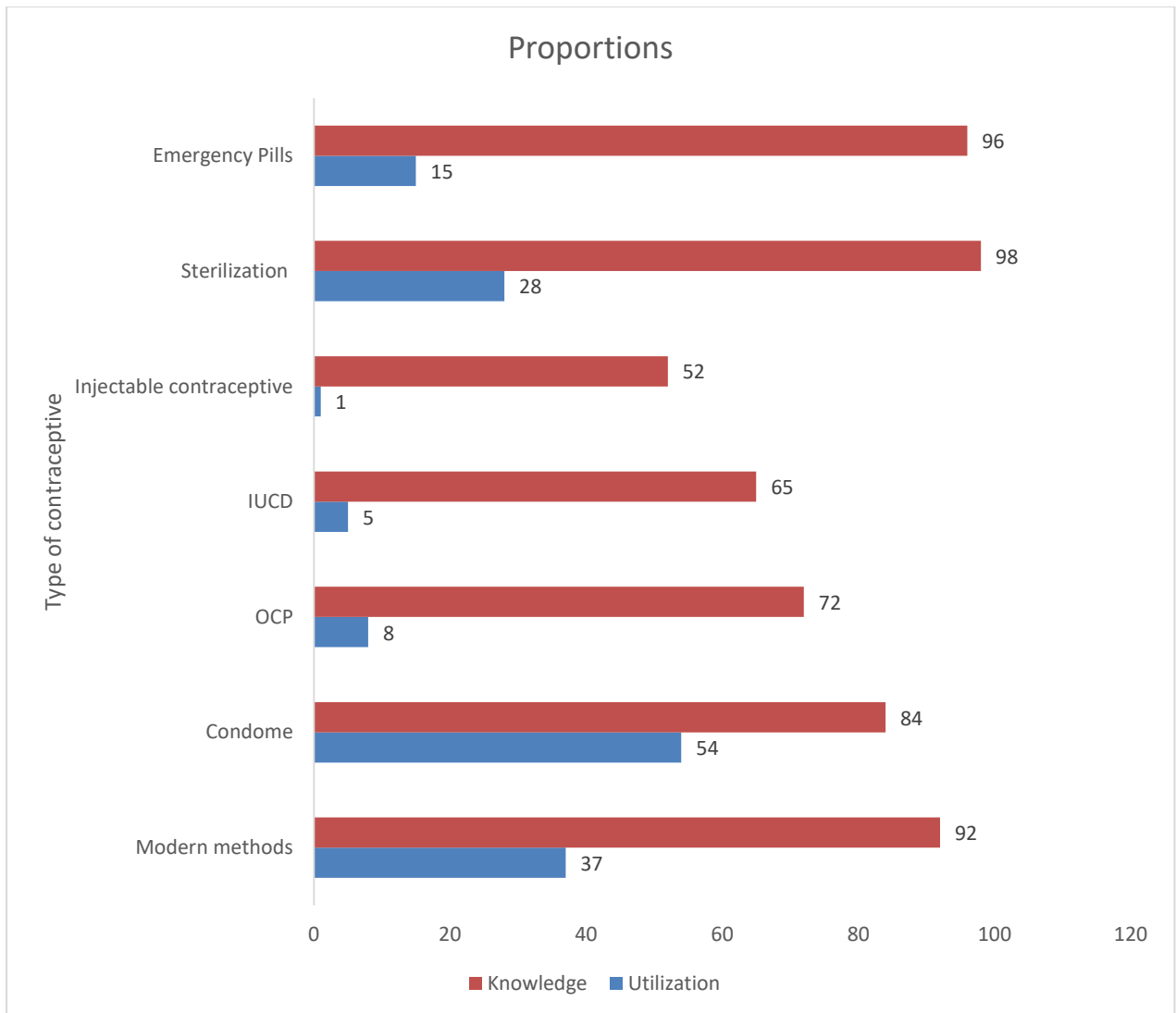


Figure 1: Respondents in the study have an awareness of and use current contraceptive techniques.

The graph presents information on the utilization and knowledge of different types of contraceptives among the study participants. It provides valuable insights into the participants' awareness and use of various contraceptive methods. In terms of utilization of modern methods, it was found that 37% of the participants reported using modern methods of contraception. This category includes contraceptive methods such as hormonal pills, intrauterine contraceptive devices (IUCDs), injectable contraceptives, and sterilization. Among the specific modern methods, condom usage was the highest, with 54% of the participants reporting its utilization. This was followed by oral contraceptive pills (OCP) at 8%, IUCDs at 5%, injectable contraceptives at 1%, and sterilization at 28%. It is noteworthy that the utilization rates for injectable contraceptives and IUCDs were relatively low compared to other methods. When examining the knowledge levels regarding different contraceptive methods, the graph reveals that the participants exhibited a high level of awareness overall. For modern methods, 92% of the participants demonstrated knowledge about these contraceptive options. Specifically, 84% of the participants had knowledge about condoms, while 72% were aware of OCPs. Regarding IUCDs, 65% of the participants had knowledge about this method, and 52% were knowledgeable about injectable contraceptives. The participants showed a significantly high level of knowledge

regarding sterilization, with 98% of them being aware of this method. Emergency pills, which are used for emergency contraception, had a knowledge rate of 96% among the participants. These findings highlight the importance of knowledge and utilization of different contraceptive methods. While the overall knowledge levels were quite high, there were variations in the utilization rates across different methods. Condoms were the most widely used contraceptive method among the participants, possibly due to their availability and ease of use. On the other hand, methods like injectable contraceptives and IUCDs had relatively lower utilization rates, suggesting potential barriers or misconceptions associated with these methods. The high level of knowledge regarding sterilization is an encouraging finding, as it indicates awareness about a long-term and highly effective contraceptive option. However, it is essential to ensure that individuals are informed about the full range of contraceptive choices to make well-informed decisions based on their unique needs and circumstances.

Table 1: Association of utilization of contraceptives with the socio-demographic characteristics of the study participants.

Socio Demographic characteristics		N	%	Significant value at 95% CI
Age (In years)	15-25	65	46.4	0.372
	26-35	48	34.3	
	>35	27	19.3	
Age at marriage (In years)	<15	42	30.0	0.041*
	15-20	58	41.4	
	20-25	40	28.6	
Religion	Hindu	72	51.4	0.638
	Muslim	60	42.9	
	Sikh	8	5.7	
Occupation	Employed	12	8.6	0.531
	Non-employed	128	91.4	
No of children	<2	34	24.3	0.026*
	02-Mar	59	42.1	
	>3	47	33.6	

Socio-economic status	Upper	8	5.7	0.037*
	Middle	78	55.7	
	Lower	54	38.6	

The given table presents the results of the chi-square tests conducted to examine the associations between socio-demographic characteristics and the utilization of different contraceptive methods. The significance values at a 95% confidence interval are provided to determine the statistical significance of these associations. Overall, the chi-square test results provide insights into the potential associations between socio-demographic characteristics and contraceptive utilization among the study participants. While age and religion did not show significant associations because the p-value is greater than 0.05, age at marriage, number of children, and socio-economic status were found to be statistically significant factors. These findings can inform targeted interventions and programs to promote appropriate contraceptive use based on specific socio-demographic characteristics.

4. DISCUSSION

The current study aimed to investigate the knowledge-utilization gap concerning modern methods of contraception among rural women attending an outreach health centre in Lucknow. The findings shed light on the awareness and utilization of contraception within this specific population. Consistent with previous studies⁹ and Gaikwad et al⁷, the majority of women in our study exhibited significant knowledge regarding modern methods of contraception. Condoms were identified as the most well-known method, followed by sterilization, oral contraceptive pills (OCPs), and intrauterine contraceptive devices (IUCDs). These findings align with the general trend observed in various studies conducted in similar settings, indicating a substantial level of awareness among rural women regarding contraception. The prominence of female sterilization as the most well-known method in some studies⁷ may be attributed to historical emphasis on sterilization campaigns in specific regions, leading to higher awareness compared to other methods. 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. Many studies were carried out with the similar results in rural and urban population in Lucknow district.

Despite the availability of knowledge, only 42% of the individuals participating in the study were found to be using any form of contraception, and even among them, half were relying on traditional natural methods. This disparity between knowledge and utilization has been consistently reported in numerous studies conducted both within and outside the country, as referenced by sources.^{6,7,9} Despite ongoing efforts to improve family planning programs and the implementation of multiple iterative studies to assess knowledge and utilization of contraceptives over time, this unfulfilled gap persists. Even with the easy accessibility to a range of contraceptive methods, the majority of individuals still do not fully embrace them. The study findings highlight a concerning trend in the use of contraception. Despite knowledge about the importance and availability of contraception, a significant proportion of the population remains unaware or chooses not to utilize these methods effectively. This has serious implications for individuals' reproductive health and the overall success of family planning initiatives.

The study participants predominantly used condoms as a modern contraceptive, followed by sterilization, IUCD, and OCP. Injectable contraceptives were not used by any participants. However, another study¹⁰ reported OCP and condoms as the most accepted methods, while a study in rural Africa found pills and injectables to be the most common methods. These variations can be attributed to regional differences in available methods. Despite 68% of users having completed their families,

the majority relied on barrier methods, which have higher failure rates, potentially leading to unwanted pregnancies and abortions due to insufficient knowledge. Barriers to contraceptive use included poor reliability, lack of knowledge, partner opposition, side effects, unavailability, and desire for more children. These barriers can be addressed through community involvement, reinforcement, and involving male partners⁸. Socio-demographic factors, such as age at marriage and number of children, were significantly associated with contraceptive use in the current study, although education did not show significant association. Other studies have linked socio-demographic characteristics like age, education, occupation, income, and religion to contraceptive utilization. The current study's findings may be influenced by its smaller sample size and different study population. Also, as the study was done in government setup generatability of the findings can't be done.

5. CONCLUSION

Despite having a good understanding of contraceptives, their usage remains significantly low. The current study reveals a notable disparity between individual knowledge of contraception and its actual utilization, despite the availability of well-established and expanding services. Thus, it is crucial to provide accurate information to couples as a unified entity and reinforce it regularly to bridge the knowledge-utilization gap. However, addressing this gap, particularly among rural women, poses a challenge due to prevailing cultural practices and limited access to healthcare services. Consequently, empowering rural women with comprehensive knowledge and ensuring easy access to utilize that knowledge becomes an urgent priority. Although individuals possess adequate knowledge about contraceptives, their low utilization rates indicate a considerable gap between awareness and action. Even with the presence of well-established and continuously improving services, the current study identifies a significant disparity in both individual understanding of contraception and its practical application. Therefore, it is essential to provide accurate and consistent information to couples as a cohesive unit, regularly reinforcing this knowledge to bridge the gap between awareness and utilization. However, addressing this disparity, particularly among rural women, presents challenges due to cultural practices and limited accessibility to healthcare services. Thus, empowering rural women with comprehensive knowledge and facilitating convenient access to apply that knowledge emerges as an urgent necessity.

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