

## Comparative Study on Knowledge, Awareness, and Perception of Contraception among Rural and Urban Populations in a Tertiary Care Teaching Hospital

Chimanbhai Patel

Assistant Professor, Department of Obstetrics & Gynaecology, Swaminarayan Institute of Medical Sciences & Research, Kalol, Gandhinagar, Gujarat

Received: 25-05-2024 / Revised: 23-06-2024 / Accepted: 26-07-2024

Corresponding Author: Dr. Chimanbhai Patel

Conflict of interest: Nil

### Abstract:

**Background:** In developing countries like India, a lack of awareness about contraceptive methods often leads to misconceptions, limited choices, and improper family planning. This knowledge gap not only disrupts maternal and child health complications but also disrupts the economy of society and the nation. Therefore, the purpose of this study was to investigate the knowledge, awareness and perception of contraception among the rural and urban population.

**Materials and Methods:** This observational study conducted in the Department of Obstetrics and Gynecology at a tertiary health care centre, in Punjab, India. A total of 500 women were evaluated with the help of a pre-designed questionnaire to address knowledge, awareness, and perception of contraception among the rural and urban population in Kalol.

**Results:** In the present study, a total of 492 participants were included, of whom 387 were from rural areas and 105 were from urban areas. This study revealed, 100% of participants were aware of contraception. In terms of the source of information, social circles were identified as the primary channel (46.34%), followed by the media (33.94%), health workers (16.87%), and educational institutes (2.85%)

**Conclusion:** This study highlights contraceptive methods, including condoms, oral contraceptives, and intrauterine devices (IUDs), as primary choices. Therefore, it's important to bridge the gap between awareness and action. Hence, this study, advocate the awareness program on interventions to ensure everyone can access effective family planning resources without barriers.

**Keywords:** Knowledge, Awareness, Contraception, Unintended Pregnancies Intrauterine Devices.

This is an Open Access article that uses a funding model which does not charge readers or their institutions for access and distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>) and the Budapest Open Access Initiative (<http://www.budapestopenaccessinitiative.org/read>), which permit unrestricted use, distribution, and reproduction in any medium, provided original work is properly credited.

### Introduction

According to the current estimated population, which is 1.37 billion, India stands as the second-most populous country worldwide. It is estimated that, in the middle of 2023, India's population will increase by up to 8%, which is more than that of China's population, and by the middle of 2050, this margin is expected to extend to 25%. [1] Even though India implemented its first population control program in 1952, the baby boom is still challenging to overcome. [2] This kind of uncontrolled population explosion will create a burden on natural resources, which are already in endangered condition. Therefore, the implementation of contraception becomes more necessary.

In this modern health era, where women have reached space on one side, they are still fighting for their rights, especially for their health, because every woman has the right to protect her own health. Hence, India was the first country to launch

a national program for family planning. [2] This program goes beyond simple birth control; it encompasses a comprehensive range of services, policies, information, attitudes, practices, and commodities. [3] A variety of contraceptives are available to prevent unplanned pregnancies and provide an informed decision regarding whether and when to start a family for women, men, couples, and adolescents. [4,5] The success of contraceptives will not only improve the economic condition of the nation as a whole, but it will also improve the health of women and children in the family. [6]

In India, there are numerous methods of contraception, such as oral contraceptives (pills), intrauterine devices (IUDs), and condoms. [4,7] In addition to family planning, these contraceptives are also used to manage menstrual disorders, reduce the risk of ovarian and endometrial tumours, and treat the symptoms of polycystic ovarian

syndrome (PCOS). Also, contraceptives help to reduce maternal, infant, and child mortality and morbidity around the globe and to prevent sexually transmitted diseases (STDs). [4,8,9]

According to various studies conducted in different parts of developing countries, knowledge of contraceptives is present, but the percentage of actual women using contraception is very low, and the method of contraception use also varies in different parts. Numerous challenges interfere with the progress of developing countries, such as limited access to accurate information, insufficient supply sources, high costs, and cultural beliefs affecting the knowledge of contraceptive methods. These barriers pose significant challenges for development in the urban and rural regions of Punjab. Thus, the present study aims to understand knowledge, awareness, and perceptions related to contraception within the rural and urban populations of Punjab, shedding light on the nuanced dynamics of contraceptive perception in both settings

### Materials and Methods

In the present study, approximately 492 participants of reproductive age between 18 to >36 years were included, and females outside this age group were excluded. Also, the study participants who were unwilling to participate were excluded from this study.

In this study, participants were asked a series of questions in a face-to-face interview using a pre-structured questionnaire in the local language. Considering the sensitivity of the topic and related social taboos, the investigating team provided specialized training to a local social worker. Through this training, the social worker was

permitted to ask questions in an informal yet confidential setting, which encouraged study participants to open up comfortably and without any hesitation to share their responses.

The pre-design questionnaire was divided into two parts: the first part includes the demographic profile of the study participants, and the second part includes awareness regarding the use of contraceptives. Information about contraceptives includes knowledge, details of administration, availability, and side effects. Then, various perceptions, like fear and myths related to contraceptive use, were noted. Knowledge related to contraceptive effects on sexual behaviour, fertility in general, and basic awareness of contraceptive use was studied.

### Results

In the present cross-sectional study, a total of 492 participants were included. The demographic profile of the included study participants revealed that, in terms of age distribution, the majority of the participants were found to be within the (26-36) age group (39.63%), closely followed by (18-26) (36.59%) and >36 (23.78%). Occupationally, a significant proportion were homemakers (77.85%), with a smaller segment engaged in private jobs (22.15%). Educational backgrounds highlighted a prevalence of primary education (55.69%), followed by higher secondary (29.07%), graduate (14.84%), and postgraduate (0.41%) qualifications. Regarding marriage duration, a noteworthy percentage had been married for less than 5 years (55.28%). The majority of participants were currently married (99.19%), while a small fraction reported divorce (0.20%) or widowhood (0.20%), as represented in Table 1.

**Table 1: Socio-demographic details of study participant**

Age	Rural No of cases	Urban No of cases	Total	Percentage
(18-26)	144	36	180	36.59%
(26-36)	157	38	195	39.63%
>36	86	31	117	23.78%
Total	387	69	492	100.00%
<b>Occupation</b>				
Homemaker	311	72	383	77.85%
Private job	76	33	109	22.15%
Govt. job	0	0	0	0.00%
Total	387	105	492	100.00%
<b>Education</b>				
Primary	235	39	274	55.69%
H. Secondary	109	34	143	29.07%
Graduate	41	32	73	14.84%
Post Grad	2	0	2	0.41%
Total	387	105	492	100.00%
<b>Marriage Duration</b>				
<5 years	227	45	272	55.28%
>5 years	159	60	220	44.72%

Total	386	105	492	100.00%
<b>Marital State</b>				
Married	385	103	488	99.19%
Unmarried	0	0	0	0.00%
In a relation	0	0	0	0.00%
Divorce	1	1	1	0.20%
Widow	0	1	1	0.20%
Total	385	105	490	99.59%

**Table 2: Representing the awareness about contraception**

Aware about contraception	Rural	Urban	Total	Percentage
Yes	387	105	492	100%
<b>Source of information</b>				
Social circle	177	51	228	46.34%
Health Worker	72	11	83	16.87%
Media	126	41	167	33.94%
Educational institute	11	3	14	2.85%
Total	386	106	492	100.00%
<b>Do you use contraception?</b>				
Yes	387	105	492	100%
<b>Which contraception do you use?</b>				
Barrier	90	48	138	28.05%
OCP	92	18	110	22.36%
RHYTM	54	7	61	12.40%
IUCD	55	15	70	14.23%
Injection	12	1	13	2.64%
Withdrawal	88	16	104	21.14%
Implant	0		0	0.00%
Total	391	105	496	100.81%

The Table 2 revealed information on awareness, usage, and types of contraception among the participants. A total of 492 participants were included, and 100% reported being aware of contraception. In terms of the source of information, social circles were identified as the primary channel (46.34%), followed by the media (33.94%), health workers (16.87%), and educational institutes (2.85%). All participants reported using contraception. Concerning the types of contraception used, barrier methods were the most prevalent (28.05%), followed by oral contraceptive pills (OCP) (22.36%), rhythm method (12.40%), intrauterine contraceptive devices (IUCD) (14.23%), injection (2.64%), and withdrawal method (21.14%). Notably, no participants reported using implants.

The current findings of the study, provide data on the basis of knowledge and awareness of contraception in both rural and urban areas. Participants demonstrated familiarity with oral contraceptive pills, with a significant majority recognizing Mala N (83.74%), while fewer were aware of Mala D (16.26%). CuT emerged as the primary known intrauterine contraceptive device (IUCD) among respondents (100.00%), with minimal awareness of multiload (0.61%). A notable proportion indicated willingness to opt for IUCD (29.07%), although the majority was not inclined (70.93%). However, awareness of implants was

negligible (0.00%). Emergency contraception (I pill) was well-known (63.82%). Some participants reported unintended pregnancies (21.54%), primarily managing them through medical methods (21.54%). No instances of the surgical method for unintended pregnancies were reported.

### Discussion

In the present era, many women in the reproductive age group are aware of at least one contraception method, but their actual usage remains significantly low. Despite substantial efforts from governmental and non-governmental organizations, we have not achieved any population control goals. [13] The findings of the present study show that the total number of patients which was approximately, 492 from rural and urban areas, i.e., 387 and 105, respectively. The majority of the participants were in the 26–36 age group (39.63%), followed by the 18–26 age group (36.59%), and >36 (23.78%). These findings were in concordance with the study done by Upadhye JJ et al. [10] They reported that, the maximum number of patients were between 26 to 30 years of age i.e., (43.5%) followed by (26.5%) who were between 22-25 years of age. Also, a study revealed by Ghike S, et al. [11] reported that, most of the study participants (46.9%) were age between 22-25 years.

Our study demonstrated that, approximately 85% of

rural participants opted for condom usage, amounting to around 218 individuals, while 15% of participants were from urban areas, totaling 36 individuals. Whereas, the use of OCP noted among rural and urban populations was represented as follows. In addition, extra findings showed that implants were not proffered by both study participants. This represents that knowledge and awareness of contraceptives were good in both regions of the study participants. This result contrasts with the observations of Nayak et al. [12] and Young et al., [14] who reported percentages of 11% and 8%, respectively, among women who had never used contraceptives in their studies. Moreover, another study done by Sherpa et al., [15] where 38.23% of participants had never used contraceptives, as well as Renjhen et al., [16] who found a percentage of 44.6%, and Srivastava et al., [17] where never using contraceptives was found in 55%.

### Conclusion

The present research underscores a profound understanding and favorable attitude towards contraception among rural and urban participants. Despite this, the practical implementation of contraceptive methods remains sub-optimal. Healthcare practitioners and social workers must emphasize key barriers, such as the prevalence of lacking contraceptive information among males compared to females, inadequate knowledge about contraception, and concerns regarding its side effects, which prevent widespread contraceptive usage. The present study reveals, contraceptive practices, condoms, oral pills, and intrauterine devices (IUDs) emerged as the cornerstone choices. However, their prevalence underscores the urgent need for comprehensive interventions to bridge the gap between knowledge and action, ensuring that individuals have uncontrolled access to effective family planning resources.

### References

- George S, Kumar H, Knowledge. Knowledge, attitude and practices of contraception among urban women in Mangaluru, Karnataka. *Int J Community Med Public Health*. 2019; 6:2086–90.
- Srivastava A, Khan SM, Chauhan RC. Knowledge, attitude and practices about contraception among married reproductive women. *Int J Reprod Contracept Obstet Gynecol*. 2018;7:1431
- Starbird E, Norton M, Marcus R. Investing in family planning: key to achieving the sustainable development goals. *Glob Health Sci Pract*. 2016;4(2):191–210.
- Nayak AU, Ramakrishnan KG, Venkateswar KN, Vijayshree M. Assessing the knowledge, attitude and practice of contraception in rural India: a necessary step in achieving population control. *Int J Reprod Contracept Obstet Gynecol*. 2017; 6:3328–31.
- Todd N, Black A. Contraception for Adolescents. *J Clin Res Pediatr Endocrinol*. 2020; 12(1):28–40.
- Saba H, Kishore K. Assessment of knowledge about contraceptive methods among Bangalore Urban Women. *MedPulse-Int Med J*. 2014; 1(9):508–13.
- Harazi RA, Alharbi NM, Ola AZ, Alkhalidi R, Almousa I, Almulhim JN, et al. Evaluation of current contraception methods and knowledge among females in Saudi Arabia: a cross-sectional survey. *Int J Med Dev Count*. 2019; 3(10):867–72.
- Park K. *Textbook of Social and Preventive Medicine*. 23rd ed. Jabalpur: Bhanot Publishers; 2017. p. 491.
- Spritzer PM. Contraception for Women with Polycystic Ovary Syndrome: Dealing with a Complex Condition. *Rev Bras Ginecol Obstet*. 2022; 44(4):325–6.
- Upadhye JJ, Upadhye JV. Contraceptive awareness and practices in women of urban India. *Int J Reprod Contracept Obstet Gynecol*. 2017; 6(4):1279–82.
- Ghike S, Joshi S, Bhalerao A, Kawthalkar A. Awareness and Contraception Practices among Women—An Indian Rural Experience. *South Asian Fed Obstet Gynecol*. 2010; 2(1):19–21.
- National Family Health Survey- 4, 2015-16. Available from: [https://rchiips.org/nfhs/pdf/NFHS4/HR\\_FactSheet.pdf](https://rchiips.org/nfhs/pdf/NFHS4/HR_FactSheet.pdf).
- George S, Kumar H. Knowledge, attitude and practices of contraception among urban women in Mangaluru, Karnataka. *Int J Community Med Public Health*. 2019; 6:2086–90.
- Young LK, Farquhar CM, Mccowan LM, Roberts HE, Taylor J. The contraceptive practice of women seeking termination of pregnancy in an Auckland clinic. *N Z Med J*. 1994; 107(978):189–92.
- Sherpa SZ, Sheilini M, Nayak A. Knowledge, attitude, practice and preferences of contraceptive methods in Udipi district, Karnataka. *J Family Reprod Health*. 2013; 7(3):115–20.
- Renjhen P, Das GS, Ankur B, Shipra J, Binita K. A study of knowledge, attitude and practice of family planning among the women of reproductive age group in Sikkim. *J Obstet Gynecol India*. 2008; 58(1):63–7.