

# “EVALUATION OF CONTRACEPTIVE USAGE AMONGST FEMALES OF REPRODUCTIVE AGE GROUP IN AN URBAN SLUM OF A CITY IN WESTERN INDIA”

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## Abstract

**Introduction:** Family planning, through contraception, aims to achieve two key goals of achieving desired family size and spacing pregnancies effectively. According to the annual report of Government of India, the expected increase of population is around 1.21 billion people in 2011 to 1.5 billion in 2026. The Total Fertility Rate (TFR) in the India has reduced from 2.9 in 2005 to 2.3 in 2013 and from 2.2 in 2015-16 to 2.0 children per woman in 2019-21. We conducted this study to evaluate the proportion of women using different contraceptive methods.

**Methodology:** This study, conducted in the adapted slum area in a city served by the Health Centre of a medical college in western India. Reproductive age couples were included in this study. Total 200 participants were interviewed for the method of contraception used, the reasons for not using contraception and from where they are procuring these contraceptives.

**Results:** The participants mean age was  $35.62 \pm 14.25$  yr. Median education status was 12<sup>th</sup> grade. 71.5% (143/200) of the participants used contraception. Most popular method was barrier methods like condoms and spermicides, chosen by nearly 40%, followed by oral contraceptive pills used by 26.6%. Over half (58.74%) of the participants reported obtaining contraceptive services from government hospitals. The most common reason is desiring pregnancy (33.33%), followed by family pressure (29.82%).

**Conclusion:** We observed that the contraceptive usage in urban slum couples was 71.5%, government centres were more preferred for procurement of contraception. We recommend promotion of contraception for better family welfare and for the empowerment of families and thus the country.

**Key Words:** Contraception, Family Planning, Urban Slum, Condom, Oral Contraceptive Pills

## Introduction:

Family planning services offer a powerful tool to enhance people's quality of life and economic well-being. With global population growth posing a challenge, these services provide a variety of safe and effective contraceptive methods, significantly reducing risks compared to pregnancy and childbirth. However, it's crucial to recognize that not all methods are universally suitable. [1]

Family planning, through contraception, aims to achieve two key goals:

1. Achieving desired family size: Allowing individuals to have the number of children they want.
2. Spacing pregnancies effectively: Ensuring healthy intervals between pregnancies for both mother and child. [2]

Several barriers hinder access to family planning services in developing countries, including [3]:

- Limited knowledge about available methods and their sources.
- Cost and affordability of contraceptives.

- Physical accessibility to healthcare facilities.
- Concerns and perceived side effects associated with modern methods, leading to discontinuation.

Mass media plays a crucial role in raising awareness, promoting acceptance, and ultimately increasing the utilization of effective contraception.

According to the annual report of Government of India, the increase of population is expected by 15.7% in the 15 years from 1.21 billion people in 2011 to 1.5 billion in 2026. [4]

Reduced total fertility rates (TFR) contribute to stabilizing India's population growth, thereby fostering economic and social advancement. [5]

Investing in Family Planning is a recipe for positive change.

Boosting investments in family planning unleashes a cascade of benefits [6]:

- **Curbing population growth:** By empowering women to choose their desired family size and avoid unintended pregnancies, family planning helps manage population growth, easing pressure on resources and infrastructure.
- **Saving mothers' lives:** Studies show a 35% reduction in maternal mortality when women have access to family planning services. This translates to countless lives saved and families protected from the devastating loss of a mother.
- **Protecting newborns:** Family planning also contributes to a significant decrease in infant mortality and abortions. This ensures healthier communities and brighter futures for generations to come.

In essence, investing in family planning is an investment in healthier families, stronger communities, and a more sustainable future for all. [7]

According to previous Indian records, factors that influence population growth can be explained in following points [8, 9]:

Despite the potential benefits of family planning, a significant gap exists between desired family size and reality in India. This unmet need is reflected in several concerning statistics:

- Around 21% of females have the unmet need of family planning, According to DLHS-III (2007-08).
- The early age marriages play a major part, with 22% of the females married in adolescence, before the legal age of 18.
- Teenage pregnancy remains a concern, with 5.6% of deliveries occurring among teenagers (15-19 years).
- Spacing between births is often inadequate, with 59.3% of births having less than the recommended 3-year gap.
- The young adults that is 15 years to 25 years age group contributes around 52% of the total fertility, highlighting the need for targeted interventions.
- Maternal mortality is also impacted, with 46% linked to inadequate birth spacing.

These statistics paint a concerning picture of the unmet need for family planning in India. Addressing this gap requires a multifaceted approach that tackles various contributing factors [10]:

- Promoting awareness and education about family planning options and their benefits, particularly among young people and vulnerable communities.
- Empowering women through education and access to healthcare services to make informed choices about their reproductive health.
- Combating child marriage through legal enforcement and social awareness campaigns.

- Enhancing access to affordable and effective contraceptive methods across the country.
- Addressing myths and misconceptions surrounding family planning to encourage wider acceptance and utilization.

By bridging the gap in family planning services, India can empower individuals and families, improve maternal and child health outcomes, and contribute to a more sustainable future. [6]

According to the fifth National Family Health Survey (5<sup>th</sup> NFHS) conducted by the Ministry of Health and Family Welfare, the Total Fertility Rate (TFR) in India has witnessed a decrease from 2.9 in 2005 to 2.3 in 2013. Furthermore, it continued to decline from 2.2 children per woman in 2015-16 to 2.0 children per woman in 2019-21. [11, 12]

The contraceptive usage in the world increased from 56% in 2010 to 63% in 2019 according to world bank data on contraception. Indian statistics denote the 2021 usage of contraception of 67%. [13]

We conducted this study to assess the proportion of women utilizing various contraceptive methods, their sources for obtaining these methods, and the factors influencing their decision not to use contraception. This examination aims to gauge the quality of care available to women based on their contraceptive method choices, indicating the ability of programs to cater to the diverse needs of women.

### Methodology:

#### Study Participants and Methods

This study, conducted in an adapted slum area of a city served by the Urban Health Centre (UHC) of a medical college in western India, focused on married couples where the wife was between 15 and 49 years old.

#### Inclusion criteria:

- Couples who were married and living together
- Women aged 15 to 49 years

#### Exclusion criteria:

- Couples unwilling to participate
- Individuals with medical reasons preventing them from using any contraceptive methods

#### Ethical considerations:

- All participants gave written informed consent before enrolling.
- The study employed a pre-tested, semi-structured questionnaire to gather data.
- Ethical approval was obtained from the college's ethics committee.

#### Sample Size Calculation:

According to World Bank data for contraceptive usage (any method) India- 2021, prevalence of contraceptive usage was 67% [13]. So,

$$p = 67\% = 0.67$$

$$q = 1 - p = 1 - 0.67 = 0.33$$

Considering, absolute error of 7%,  $e = 7\% = 0.07$ , Sample size =

$$n = 4pq / e^2$$

$$n = (4 \times 0.67 \times 0.33) / 0.07 \times 0.07$$

$$n = 180.89$$

So, sample size taken for our study is 180.89, considering 10% dropouts and rounding it up to 200.

Information was gathered through a prearranged questionnaire, entered into Microsoft Excel 2021, and analysed utilizing EpiInfo version 7.2.1. Statistical analysis involved the utilization of both Student's t-test and Mann-Whitney U test to examine the data.

Results:

The mean age of the participants was 35.62 ± 14.25 years. Median education status was 12<sup>th</sup> gra

Table 1: Contraceptive usage

Contraceptive	Frequency	Percentage
Used	143	71.50%
Never Used	57	28.50%
Total	200	100.00%
Method Used		
Barrier	57	39.86%
Oral Hormonal	38	26.57%
IUCD	29	20.28%
Permanent	14	9.79%
Natural method	5	3.50%
Total	143	100.00%

The study found that over two-thirds (71.5%) of the participating couples were using or had previously used contraception. Among the 143 participants who had ever used contraception, the most popular method was barrier methods like condoms and spermicides, chosen by nearly 40% (57 participants). This was followed by oral contraceptive pills used by 26.6% (38 participants). [Table 1]

Intrauterine devices (IUDs) were used by 20% of participants, while permanent sterilization methods like tubectomy or vasectomy were chosen by 10%. Interestingly, natural family planning methods were the least popular choice, accounting for only 3.5% of participants.

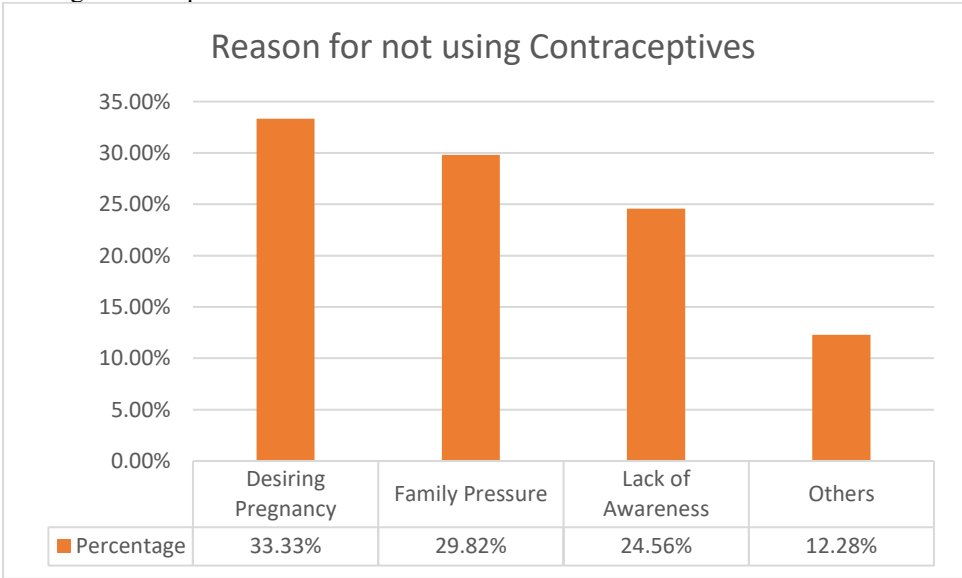
Table 2: Contraceptive services procured from

Contraceptive services	Frequency	Percentage
Government Hospital	84	58.74%
Medical Shop	35	24.48%
Private Hospital	24	16.78%
Total	143	100.00%

We observed that Over half (58.74%) of the participants reported obtaining contraceptive services from government hospitals, followed by medical shops (24.48%) and private hospitals (16.78%). [Table 2]  
This suggests that government hospitals play a crucial role in providing accessible contraceptive services in this community.

However, it is important to note that a significant proportion of individuals also rely on medical shops and private hospitals, highlighting the need for a multifaceted approach to ensure comprehensive service availability.

Fig 1: Reasons for not using Contraceptives



The figure 1 shows the reasons why people do not use contraceptives. The most common reason is desiring pregnancy (33.33%), followed by family pressure (29.82%), lack of awareness (24.56%), and others (12.28%). [Fig 1] This suggests that a significant proportion of people who do not use

contraception want to get pregnant or are facing pressure from their families to have children. It also highlights the importance of education and awareness campaigns about contraception, as well as addressing social and cultural factors that may discourage contraceptive use.

Table 3: Participants age and education with contraceptive use

Parameter	Used (n = 143)	Never Used (n = 57)	P value
Participants age	38.12 ± 16+.53	32.27 ± 11.50	0.019 (S)*
Median education	12 <sup>th</sup> Grade	12 <sup>th</sup> Grade	0.98 (NS)

\*P<0.05, Significant difference

The table 3 shows a comparison of two groups: participants who used contraceptives (n=143) and participants who never used contraceptives (n=57). The average age of participants who used contraceptives is 38.12 years with a standard deviation (SD) of 16.53 yr, while the average age of participants who never used contraceptives is 32.27 yr with a SD of 11.50 yr. Both groups have a median education level of 12th grade. We observed significant difference between the age and the use of contraception. (p<0.05)

#### Discussion:

Expanding contraceptive options for women is essential to increase overall usage, reduce unintended pregnancies, and minimize maternal health complications and deaths worldwide. Contraception empowers women by giving them control over their reproductive choices, leading to smaller families, improved maternal and child health, and educational and economic opportunities. It also reduces maternal mortality, promotes healthier births, and offers protection against certain cancers and STIs. Overall, contraception is crucial for women's health and well-being, fostering a healthier and more empowered future. It is governments responsibility to provide various contraceptives free of cost at the government centres so that there will not be any accessibility gap. We conducted this study to check the prevalence and use of contraceptives in an urban slum in western India.

We observed that the mean age of the participants was 35.62 ± 14.25 years. Median education status was 12<sup>th</sup> grade. There was significant difference between the age and the use of contraception. (p<0.05) We observed that the participants using contraception were older than those who were not using any type of contraceptive.

In a similar study, **B L Solanke** [14] found that the participants using contraceptives were older than that of those not using contraceptives, similar to our study. Similar findings were reported by **M Kumar et al.** [15]

Our study found that over two-thirds (71.5%) of the participating couples were using or had previously used contraception. Among the 143 participants who had ever used contraception, the most popular method was barrier methods like condoms and spermicides, chosen by nearly 40% (57 participants). This was followed by oral contraceptive pills used by 26.6% (38 participants). Intrauterine devices (IUDs) were used by 20% of participants, while permanent sterilization methods like tubectomy or vasectomy were chosen by 10%.

**J V Thulaseedharan** [16] noted that the mean age of marriage among women was 21.3 years, with 23% of women having more than one child. The prevalence of contraceptive usage stood at

58%, with 13% favoring female sterilization as their preferred method.

**K G Makade et al** [17] found that at least one contraceptive method was known to 87.7% of women, while 68.4% were actively using contraception during the study period. About 14% of women were uninformed about nearby healthcare facilities offering contraceptives. The study highlighted a notably low level of awareness and utilization of Emergency Contraceptives among the participants.

The significant influence of women extends across their families, social circles, and communities. The passing of an older mother often results in adverse impacts on community health, nutrition, education, and economic welfare. Therefore, prioritizing comprehensive women's healthcare is essential and should never be underestimated. **M Mabenge** [18] explained the role of gynaecologists in the promotion of contraceptives

The study by **Veeramatha C S et al** [19] found that only 51% of women in Bangalore City's urban slums were using family planning methods. In contrast, our current study shows significantly higher usage at 71.5%. This positive trend aligns with findings from another study by **K G Makade et al** [17], where usage was 68.42%.

Both the partners should be targeted for effective utilization of family planning services and all the geo-political areas of a developing country like India should be provided with all the necessary logistics for impactful results from family planning services.

#### Conclusion:

This study found a better rate of contraceptive use (71.5%) among urban slum women, indicating a positive trend towards family planning within this population. These findings highlight the importance of readily available and accessible contraception services. Integrating such services into all government facilities, alongside continued promotion for women's health and family planning, can further support informed choices and empower women in these communities.

Conflict of interest: None

Source of funding: None

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