



FAMILY PLANNING METHODS AMONG REPRODUCTIVE AGE GROUP WOMEN

Narendra Singh Chouhan* | Dr. Paramjit Kaur**

*Ph.D. Scholar, Himalayan University, Itanagar, Arunachal Pradesh, India.

**Research Supervisor, Himalayan University, Itanagar, Arunachal Pradesh, India.

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ABSTRACT

Family planning (FP) is a vital component of reproductive health that enables individuals and couples to determine the number and spacing of their children through the use of contraceptive methods. It plays a crucial role in preventing unintended pregnancies, reducing maternal and infant mortality, and improving the overall quality of life. Globally, the use of modern contraceptive methods has increased significantly, reflecting growing awareness and accessibility. India, being the first country to launch a national family planning programme in 1952, has made substantial progress through policy initiatives such as the National Population Policy (2000) and expansion of reproductive and child health services.

Despite these advancements, unmet needs for contraception remain high, particularly among women of reproductive age, due to factors such as lack of awareness, socio-cultural barriers, gender inequality, and limited decision-making power among women. Family planning methods are broadly categorized into natural methods, barrier methods, hormonal methods, long-acting reversible contraceptives, permanent methods, and emergency contraception. Each method varies in effectiveness, suitability, and user preference, emphasizing the need for proper counselling and education. Promoting knowledge and positive attitudes toward family planning is essential for increasing acceptance and utilization of contraceptive methods. Effective family planning practices not only contribute to population stabilization but also enhance maternal health, prevent sexually transmitted infections, and support socio-economic development. Therefore, strengthening educational interventions and ensuring access to a wide range of contraceptive options are critical for achieving reproductive health goals.

Keywords: Family Planning, Contraception, Reproductive Health, Knowledge, Attitude, Women of Reproductive Age, Contraceptive Methods, Population Control, Maternal Health, Birth Spacing

INTRODUCTION

Family planning (FP) refers to the use of contraception to prevent unwanted pregnancies, achieve the desired family size, and adequate child spacing. Traditional and modern methods are available, with modern methods increasingly popular among women of reproductive age. Globally, modern FP use has risen from 35% in 1990 to 45% in 2021. In sub-Saharan Africa, modern FP use has almost doubled from 24% in 1990 to 56% in 2021 (UNDESA, 2022).

In 1952, India became the first nation in the world to introduce a national programme for family planning because of its fast-growing population [Kongawad DP et al 2014]. The focus gradually shifted from clinical to reproductive child health, and the National Population Policy (NPP) of 2000 introduced a comprehensive and goal-free strategy that assisted in lowering fertility. As the programme has grown over the years, it has infiltrated every nook and cranny of the nation, including primary health centres and sub-centres in rural areas as well as urban family welfare centres and post-partum centres in urban areas.

India, with one of the world's fastest growing populations, is a nation very much in need of contraceptive counselling. Contraceptive advice is a vital component of good community health. An ideal contraceptive should suit an individual's personal, social, are some of the factors that play an important role in family planning acceptance. There are approximately 40 million women in India who would prefer to avoid becoming pregnant but are not practicing any form of contraception.² In Indian scenario, females have no role in making of reproductive decisions.

Family planning is a voluntary and conscious effort made by the married couple to limit the number of children they have through adopting family planning methods. Family planning promote and protect the reproductive health of the mother by avoiding unwanted pregnancies and abortions, prevents sexually transmitted diseases, and improves the quality of life of mother and family.

Family planning methods are ways that women of reproductive age, usually 15-49 years, can choose when and if they want to have children. These methods are broadly grouped into temporary and permanent options.



Here's an overview of the main types:

1. Natural/Fertility Awareness Methods

These rely on tracking the menstrual cycle to avoid sex or use backup protection on fertile days.

• Calendar method

Tracking cycle days

• Basal body temperature

Basal body temperature (BBT) is the body's lowest temperature attained during rest, typically measured immediately upon waking before any physical activity. In family planning, tracking BBT helps identify ovulation. Before ovulation, temperatures usually range from 36.1°C to 36.4°C. After the ovaries release an egg, hormonal changes—specifically a rise in progesterone—cause the temperature to increase slightly, usually by 0.2°C to 0.5°C. This shift indicates that ovulation has occurred. By recording daily readings on a chart, individuals can predict fertile windows, though factors like illness, stress, or irregular sleep can affect accuracy. (American College of Obstetricians and Gynecologists. (2023).

• Cervical mucus method

The cervical mucus method involves tracking changes in vaginal discharge to identify the fertile window. As estrogen rises before ovulation, mucus becomes clear, slippery, and stretchy, resembling raw egg whites—a state that facilitates sperm transport. Conversely, post-ovulatory progesterone increases cause mucus to thicken or disappear, creating a barrier to prevent further sperm entry. By charting these daily variations, individuals can time or avoid intercourse based on their fertility goals. Recent research emphasizes that consistent monitoring significantly improves the accuracy of identifying these hormonal shifts compared to standard calendar calculations. (Johnson, S., Stanford, J. B., & Simmons, R. G. (2024)

• Lactational amenorrhea method (LAM)

The Lactational Amenorrhea Method (LAM) is a natural, short-term contraceptive technique that relies on exclusive breastfeeding to suppress ovulation. When a mother breastfeeds frequently, the elevated prolactin levels inhibit the hormonal signals required for ovulation, preventing conception. For LAM to be effective, three criteria must be met: the mother remains amenorrheic, the infant is exclusively or nearly exclusively breastfed, and the postpartum period is less than six months. If these conditions are strictly followed, LAM can achieve up to 98% effectiveness. Beyond contraception, LAM promotes optimal nutrition and bonding. Transitioning to other methods is advised once LAM is no longer reliable (Kennedy et al., 1989)

2. Barrier Methods

Physically block sperm from reaching the egg.

• Male condom

The male condom is a barrier device worn on the penis during sexual activity to prevent sperm from entering a partner's body, effectively reducing the risk of pregnancy and sexually transmitted infections (STIs). Made chiefly from latex, its effectiveness depends on correct and consistent use (Hamid et al., 2022).

• Female condom

The female condom is an internal, soft polyurethane sheath inserted into the vagina before intercourse, offering dual protection against unintended pregnancy and sexually transmitted infections (STIs). It is user-controlled, reversible, compatible with lubricants, and has minimal side effects while empowering women in contraceptive decision-making (Ogunjimi et al., 2021).

3. Short-Acting Hormonal Methods

Use synthetic estrogen and/or progestin to prevent ovulation.

• Combined oral contraceptive pills

Combined Oral Contraceptive Pills (COCs) are short-acting hormonal methods containing estrogen and progestin. They prevent pregnancy by inhibiting ovulation, thickening cervical mucus, and thinning the endometrium. Taken daily, fertility returns quickly after discontinuation. COCs also regulate cycles and reduce menstrual discomfort (Dickey & Seymour, 2021).

• Progestin-only pills

Progestin-only pills (POPs), or mini-pills, are short-acting hormonal contraceptives containing only progestin. They prevent pregnancy primarily by thickening cervical mucus and occasionally inhibiting ovulation. Daily intake at the same time is critical for effectiveness. Fertility typically returns rapidly after discontinuation (Teal & Edelman, 2021).



• Contraceptive patch

The contraceptive patch is a short-acting hormonal method delivering estrogen and progestin through the skin to inhibit ovulation, thicken cervical mucus, and thin the endometrium. Applied weekly for three weeks with a patch-free week, it offers reversible, highly effective contraception with quick fertility return upon cessation (Jakimiuk et al., 2021).

4 . Long-Acting Reversible Contraceptives (LARCs)

Highly effective and last years, but can be removed anytime.

• Implants

Contraceptive implants are small, flexible rods placed under the skin of the upper arm that release progestin to prevent ovulation, thicken cervical mucus, and thin the uterine lining. They provide highly effective, long-term, reversible contraception for up to three years, with rapid return to fertility upon removal (Mayo Clinic, 2024).

• Intrauterine devices (IUDs)

Intrauterine devices (IUDs) are T-shaped devices inserted into the uterus that act as long-acting reversible contraceptives (LARCs). Hormonal IUDs release levonorgestrel to inhibit sperm and thin the endometrium, while copper IUDs release ions toxic to sperm. Both provide highly effective, multi-year pregnancy prevention. (WHO 2015)

• Copper IUD

The copper IUD is a non-hormonal, long-acting reversible contraceptive inserted into the uterus, releasing copper ions that impair sperm function and prevent fertilization. It provides over 99% effectiveness for 5–12 years, allows rapid return to fertility after removal, and can serve as emergency contraception if placed within five days (World Health Organization, 2021).

5. Permanent Methods

For individuals or couples who are certain they don't want more children.

• Female sterilization/tubal ligation

Female sterilization, or tubal ligation, is a permanent birth control procedure in which the fallopian tubes are blocked, cut, or removed to prevent eggs from reaching the uterus and sperm from fertilizing them. It is highly effective but does not protect against sexually transmitted infections (Mayo Clinic, 2023).

Male sterilization/vasectomy

Male sterilization, or vasectomy, is a minor outpatient surgery in which the vas deferens are cut or sealed to prevent sperm from entering semen, rendering a man permanently infertile. It does not affect sexual function and is safer, cheaper, and highly effective compared with female sterilization (JAMA Network, 2024).

6. Emergency Contraception

Used after unprotected sex or contraceptive failure.

• Emergency contraceptive pills

Emergency contraceptive pills (ECPs) prevent pregnancy after unprotected sex by delaying or inhibiting ovulation and are most effective when taken promptly, within 72–120 hours. Common types include levonorgestrel and ulipristal acetate, with minimal side effects and no impact on future fertility. They do not terminate established pregnancies.

• Copper IUD

A copper intrauterine device (Cu-IUD) is a T-shaped, hormone-free contraceptive inserted into the uterus to prevent pregnancy. It releases copper ions, which impair sperm mobility, reduce fertilization, and alter the uterine lining. Cu-IUDs are long-lasting, reversible, highly effective (>99%), and can also serve as emergency contraception (Sharma et al., 2022).

CONCLUSION

Family planning is an essential element of reproductive health that empowers individuals and couples to make informed decisions regarding childbearing and spacing. Although India has made significant progress through various national programmes and policies, gaps in awareness, accessibility, and decision-making autonomy—especially among women—still persist. A wide range of contraceptive methods is available, but their effective utilization depends on proper knowledge, positive attitudes, and supportive socio-cultural environments.

Strengthening education, counselling, and accessibility of services is crucial to improve acceptance of family planning methods. Ultimately, effective family planning contributes to better maternal and child health, prevention of unintended pregnancies, and overall socio-economic development.



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ABOUT AUTHORS:



Narendra Singh Chouhan is Ph. D Scholar at Himalayan University at Itanagar in the Indian state of Arunachal Pradesh.



Dr. Paramjit Kaur is a Research Supervisor at Himalayan University in Itanagar, Arunachal Pradesh, India. She has presented papers in various conferences and seminars. She has many research publications in her name