

Knowledge, Attitude, And Practice (KAP) Of Contraceptive Devices Among Reproductive Age Group Of Women In Gorakhpur Uttar Pradesh

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Abstract:

Background:

The global population has grown from 2.5 billion in 1950 to 8.1 billion in 2024 at a rate of about 0.87% per year. It might be approximately 8.5 billion by 2030 because of the unregulated fertility rate. The awareness of sexual and reproductive health information among women enables them to make appropriate decisions. In this study, the knowledge, attitudes, and practices (KAP) survey of contraception methods were done to find the knowledge gap between practice and attitude regarding the use of contraceptive devices among married women of reproductive age group in a tertiary health care hospital B.R.D Medical College district Gorakhpur Uttar Pradesh India.

Objectives: To study the knowledge, attitude & practice regarding various methods of contraception used by women.

Methods: A hospital-based cross-sectional study was conducted among 1246 married women aged 15 to 49 years in the Gorakhpur district, Uttar Pradesh, India, from May 2023 to December 2023 via predesigned, pretested questionnaire through interview scheduled. The data was entered using Microsoft Excel software. The level of significance taken in the study is 95%.

Results: In this study, 94% of the participants knew about contraception but only 59% were using them. The highest percentage of respondents (women) were in the age group 31–49 (45–50%), and most of the study participants 41% were aware of four different types of contraceptive methods. The association between knowledge and contraception use was found to be statistically significant.

Conclusion: This study found that most of the women had knowledge and positive attitudes regarding contraception but only 59% of them practiced one of the contraceptive methods. To fill the gap, much more is yet to be done related to information, education, and communication, ongoing programs should be strong then and policies should be restructured accordingly.

Keywords: Contraceptive, Reproductive age group, Knowledge, Attitude, Practice

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I. Introduction

The conceptualization of an unmet need for family planning was first rigorously examined in the year 1960, following the dissemination of results from surveys that meticulously assessed knowledge, attitudes, and practices (KAP) regarding contraception [1]. These surveys unveiled a notable discrepancy between certain women's actual contraceptive behaviors and their expressed intentions regarding pregnancy. The term that subsequently gained prominence in academic discourse to describe this phenomenon was the "KAP-gap." A considerable number of sexually active women would prefer to avert pregnancy; however, a paradox exists as many of these women do not employ any method of contraception, which encompasses practices utilized by their partners. This demographic is classified as possessing an "unmet need" for family planning services, a classification that is predominantly applied to married women [2].

While the global prevalence of contraceptive usage has been on an upward trajectory, the persistence of unmet needs for contraception remains a significant challenge. Across various regions of the world, governmental bodies and numerous non-governmental organizations have prioritized strategic investments

aimed at enhancing both access to and utilization of family planning methods within the broader population [3]. An extensive body of evidence substantiates the correlation between diverse family planning methodologies and the mitigation of maternal mortality rates, primarily by decreasing the likelihood of unplanned pregnancies, unsafe abortions, and the associated health risks inherent in high parity and closely spaced pregnancies. The benefits of such family planning initiatives extend beyond maternal health; shorter birth intervals have been empirically linked to an increased risk of child mortality [4]. Family planning empowers them to exert greater control over the timing and spacing of childbirth which, in turn, fosters enhanced educational and employment outcomes for women and promotes improved health and nutrition for children. Existing literature exploring the determinants and obstacles surrounding the uptake of family planning services elucidates several reasons underlying women's non-utilization of these methods, particularly modern contraceptives [5]. An analysis conducted on Demographic and Health Surveys in 52 countries between 2005 and 2014 reveals the most common reasons that married women cite for not using contraception despite wanting to avoid a pregnancy. 26% of women are concerned about contraceptive side effects and health risks; 24% of women have infrequent sexual activity; and some have societal or personal opposition to contraceptive practices [6]. Furthermore, additional studies conducted in low- and middle-income nations have corroborated the notion that fears of side effects especially concerns surrounding infertility constitute a significant impediment to the adoption of modern contraceptive methods [7].

Consequently, the establishment of family planning counseling services, alongside targeted investments in behavior change communication campaigns, emerges as a critical strategy for addressing these apprehensions and stimulating demand for contemporary contraceptive options. It is essential to recognize that women frequently possess limited autonomy regarding their reproductive choices; research has identified men as pivotal decision-makers within this sphere, thereby positioning them as crucial targets for informational campaigns [8]. The influence of husbands and extended family members, particularly mothers-in-law, profoundly affect women's fertility decisions, encompassing considerations such as the desired number of sons and the timing of sterilization, although a gradual shift in norms is being observed, with younger couples increasingly asserting their autonomy in contraceptive choices.

Holistic research approaches have the potential to elucidate innovative programmatic recommendations, as evidenced by our prior initiatives in Uttar Pradesh concerning reproductive, maternal, newborn, and child health within public healthcare facilities. Our studies employed comprehensive frameworks to comprehend the contextual and internal behavioral factors influencing provider conduct and households' care-seeking behaviors regarding institutional deliveries. We identified a promising opportunity to apply a similarly holistic framework to the domain of family planning within Uttar Pradesh. This multifaceted strategy includes the expansion of Intrauterine Contraceptive Devices (IUCD) and sterilization service points, enhancing the competencies of healthcare providers through specialized training in injectables and IUCDs, as well as improving the identification and support mechanisms for couples experiencing unmet needs. Moreover, it is imperative to ensure the consistent availability of trained personnel, necessary commodities, medications, and equipment, both within community settings and healthcare facilities [9].

The state has initiated the creation of Family Planning (FP) kits for distribution among newlyweds in rural areas, established free condom distribution points in strategically selected locations, including hospitals, and increased financial incentives for sterilization procedures. The State Innovations in Family Planning Services Project Agency (SIFPSA) a collaborative endeavor involving the Government of India, USAID, and the Government of Uttar Pradesh—has been instrumental in designing and implementing a variety of mid- and mass-media campaigns aimed at accelerating the government's demand generation efforts for family planning within the state. To enhance reproductive health and family planning initiatives in Uttar Pradesh, there exists a pressing need for novel interventions that specifically cater to the distinct needs of young adults, who represent a significant proportion of the state's populace. The Government of Uttar Pradesh has benefitted from the support of a Technical Support Unit (TSU) embedded within the state apparatus, tasked with bolstering the efficiency, effectiveness, and equity of the delivery of essential reproductive, maternal, newborn, and child health (RMNCH) services, inclusive of family planning.

KAP studies provide invaluable insights into the attitudes, behaviors, and knowledge about specific subjects. Each KAP study is uniquely tailored to a particular context and designed to address a specific issue. While social surveys may encompass a broad spectrum of social values and activities, KAP studies are explicitly focused on the knowledge, attitudes, and practices related to a defined topic. The primary objective of a KAP survey is to systematically gather data on these dimensions through a representative sampling of a specified group. Typically, interviewers employ a semi-structured, standardized questionnaire to collect data orally during KAP surveys, and the subsequent analysis of these data may be quantitative, depending on the research goals and framework. Additionally, inquiries regarding general health behaviors and attitudes may be incorporated into a KAP survey, allowing for customization to address relevant issues effectively.

II. Methodology

Study Centre: Family planning unit of BRD Medical College Gorakhpur district, Uttar Pradesh, India.

Study Design: Complete enumeration method.

Study Period: May 2023 to December 2023.

Study Population: All married women aged 15 to 49 years came for family planning consultation.

Sampling Technique: Purposive sampling method.

Sample size: 1248 married women of age group 15 to 49 years.

Study Tool: Predesigned, Pretested Semi-structured questionnaire through interview schedule.

Inclusion Criteria: women (age group 15 to 49 years of age) who were willing to participate were included in the study.

Exclusion Criteria: Non-cooperative women who refused to furnish necessary information were excluded. The female age group below 15 years and above 49 years was excluded from the study.

Data collection: Before the interview, each study participant gave their informed consent; confidentiality was upheld; participants who wished to withdraw from the study during the interview were replaced by other participants until the sample size was completed; a semi-structured questionnaire was prepared and pretested on 10% of the sample size. A purposive sampling method and a complete enumeration method were applied to select the participants of the study.

Data Analysis: The data was entered using Microsoft Excel & analyzed using a statistical calculator 95% confidence interval was used to declare the presence of statistically significant associations. We used the definition of modern contraception proposed by Hubacher and Trussel¹², which classifies modern contraceptive methods as technological products or medical procedures that affect natural reproduction. As per this criterion, the following methods of birth control were deemed modern: injectables, diaphragms, spermicidal agents (foam/jelly), male and female condoms, IUDs, sterilization (male and female), and emergency contraception. The current methods of contraception that were examined were further divided into three categories (1) short-acting reversible contraception (SARC), which includes injectables, condoms, diaphragms, spermicidal agents, and emergency contraception; (2) long-acting reversible contraception (LARC), which includes IUDs exclusively; and (3) permanent methods, which include both male and female sterilization. Although they were listed as "other modern methods" in the questionnaire, hormone patches and implants (LARC) are also regarded as modern methods.

III. Results

Observation 1: Knowledge about Contraception Methods



Figure 1 Types of contraceptive ingredients used

The respondents' knowledge regarding various contraceptive methods is illustrated in Figure 1. A significant portion 41.02% of participants demonstrated familiarity with a range of contraceptive options, including sterilization; oral contraceptive tablets (OCPs), barrier methods, and intrauterine copper devices (IUDs). Conversely, 6.01% of participants reported a complete lack of awareness about contraception. Specifically, 923 individuals, constituting 73.96% of the sample, identified OCPs as a recognized family planning method. In parallel, 893 respondents, or 71.55%, acknowledged their awareness of barrier methods, while 867 participants, representing 69.47%, recognized sterilization as a viable contraceptive approach. Additionally, 873 individuals, amounting to 69.95%, were informed about intrauterine copper devices as a method of contraception. The predominant sources of information regarding family planning were identified as Accredited Social Health Activists (ASHAs), who serve as crucial community health workers. They were followed by health staff, partners or husbands, mass media outlets, and friends or relatives, highlighting the multifaceted nature of information dissemination in this domain. Notably, only 325 participants approximately 26% of the total 1248 respondents reported awareness of the non-contraceptive benefits associated with these methods, indicating a potential area for further education and outreach (Figure 2).

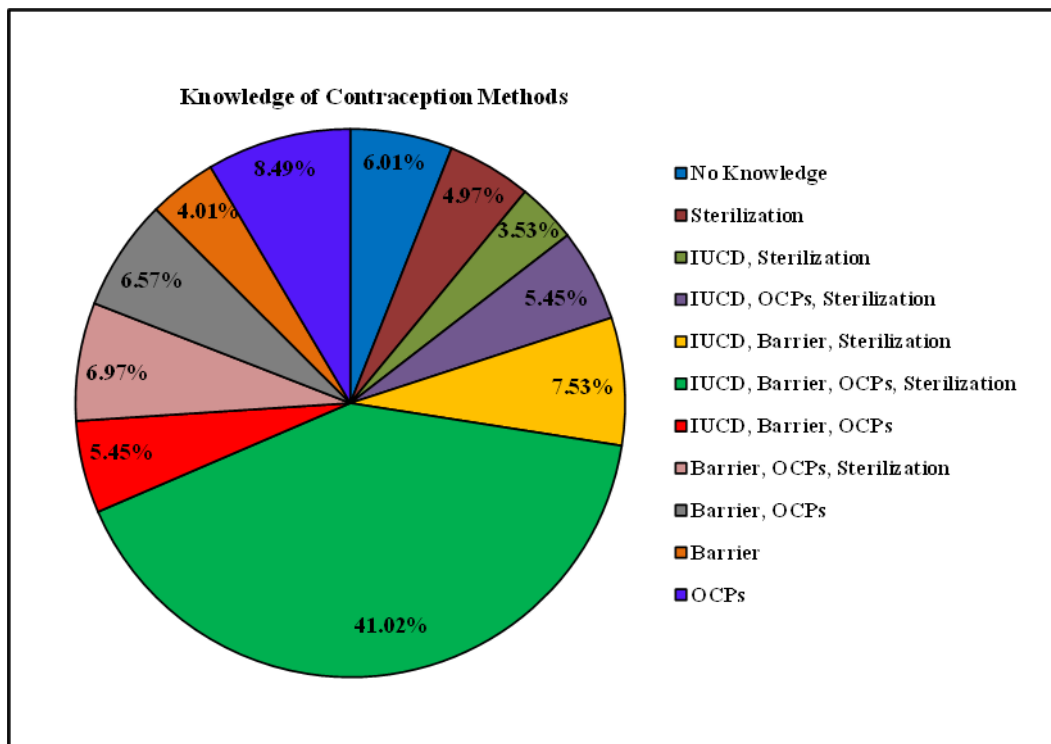


Figure 2 Knowledge of Contraception Methods

Observation 2: Attitude of Married Females Regarding Family Planning Methods

A substantial majority of study participants exhibited a positive attitude toward various family planning methods. Specifically, 1,019 individuals, representing 81% of respondents, concurred that family planning techniques facilitate effective child spacing. Among this group, 998 participants (80%) advocated for a minimum spacing interval of three years between children. Furthermore, 1,098 participants (88%) acknowledged that the utilization of family planning strategies contributes positively to a family's overall standard of living, while 961 individuals (77%) recognized the health benefits associated with child spacing, particularly concerning child welfare. In addition to these attitudes, a multitude of other demographic and socio-cultural factors were found to influence the adoption and utilization of contraceptive methods. Notably, religious affiliation emerged as a significant determinant, with Muslim women demonstrating a lower propensity to utilize contraception compared to their Hindu counterparts and individuals from other ethnic backgrounds. Furthermore, women belonging to scheduled tribes and those in the lowest income quintile exhibited a reduced likelihood of engaging with family planning methods relative to the broader population. It was also observed that among women in India who are already pregnant, there is a heightened likelihood of opting for intrauterine contraceptive devices (IUCDs), indicating a nuanced interplay between existing reproductive circumstances and contraceptive choices (Table 1).

Table 1 Attitude on Contraception Methods

Attitude of married females regarding family planning methods	Positive attitude (Yes)	Negative attitude (No)
1. Do you think contraceptive methods help in spacing between 2 children?	1019 (81%)	237 (19%)
2. Do you think contraceptive methods are good for the health of women and families?	1098 (88%)	150 (12%)
3. Do you think spacing between two children is good for a child's health?	961 (77%)	287 (23%)
4. Do you think there should be a minimum 3-year gap between 2 children?	998 (80%)	250 (20%)
5. Do you think female sterilization is one of the ways to avoid pregnancy?	824 (66%)	424 (34%)

Observation 3: Contraception Method in Practice

There is a marked gap existing between knowledge and practice of family planning methods. The use of family planning techniques increases with educational attainment. Family planning practices were assessed among participants and found that a total of 736 (59%) members had previously used any method, whereas 512 (41%) had not used anyone. Accordingly, out of 736 members, 276 (37.50%) have the common reasons for using any particular is safe & easy to use while others 352 (47.32%) claim that they are using it because of their husband's preference and the rest 108 (14.67%) claim that they are using because it is advised by health staffs/friends. While out of 512 members who discontinued the family planning methods were categorized for various reasons in which 245 (47.85%) husbands are against it, infertility 85 (16.60%), afraid of sterilization 72 (14.06%), causes adverse effects 60 (11.71%) and wants more children 50 (9.76%). The most common adverse effects by which members suffered are irregular vaginal bleeding, amenorrhea, weight loss, abdominal pain, allergy/allergic rashes, Headache/ Nausea/Vomiting/ Breast tenderness, Fever, and loss of appetite.

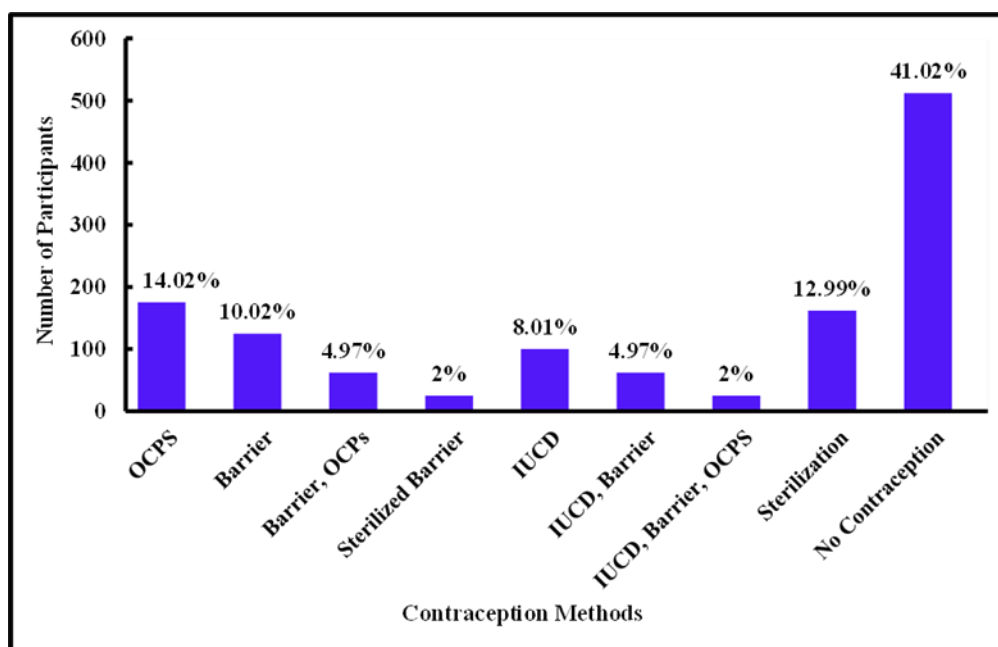


Figure 3: Contraception Method in Practice

Observation 4: Comparative Evaluation of Knowledge, Attitude and Practice

The comparative evaluation of the triad of knowledge, attitudes, and practices about contraceptive methods revealed a profound dissonance: while a considerable majority of participants demonstrated elevated awareness of various contraceptive options, the attitudes and practical application of these methods were strikingly and statistically significantly lower across all categories ($p < 0.05$). Specifically, although 94% of participants exhibited a comprehensive awareness of contraception, only 77% harbored positive attitudes towards its utilization and a concerning 17% held persistently negative dispositions. Among the minority cohort, constituting 6% of respondents who reported no knowledge of contraception, 5% expressed negative attitudes, with only a marginal 1% maintaining a positive outlook on these methods. Despite the extensive awareness 94% of respondents acknowledged familiarity with contraception only 59% of the participants actively engaged in any form of contraceptive practice. A particularly notable observation was that 41% of participants were aware of contraceptive modalities but none of them were utilizing it as elucidated in Table 2. The study also discerned a statistically significant correlation between the depth of contraceptive knowledge and its actual utilization, underscoring the pivotal role of awareness in shaping contraceptive practices.

Table 2

Knowledge	Practice			Attitude		
	Yes	No	Total	Yes	No	Total
Yes	722 (58%)	14 (1%)	736 (59%)	972 (77%)	201 (17%)	1173 (94%)
No	451 (36%)	61 (5%)	512 (41%)	8 (1%)	67 (5%)	75 (6%)
Total	1173 (94%)	75 (6%)	1248 (100%)	980 (78%)	268 (22%)	1248 (100%)

p value <0.05 SIGNIFICANT

IV. Discussion: Finding And Interpretation

The aforementioned survey reveals that nearly all married women, irrespective of their socioeconomic background, exhibited comprehensive awareness of at least one method of family planning. However, a discernible variation emerged in the study's findings concerning the relative utilization of specific contraceptive methods, a trend consistently corroborated by extant research in this field [10, 11]. Among permanent contraceptive options, vasectomy was notably less recognized compared to tubal ligation, which was far more prevalent in the collective consciousness. The analysis further highlighted that communication between spouses served as the principal conduit for information regarding family planning usage [12, 13]. In contrast, the involvement of healthcare professionals in disseminating awareness and promoting family planning practices was deemed satisfactory, according to the study's results. The survey also identified the tertiary health center, primary health center, sub-centers, and private medical pharmacies as the most widely recognized and utilized sources for obtaining family planning services, further evidencing the population's awareness of where such services could be accessed. The current analysis indicates that more than half of the respondents actively engaged in some form of family planning, with male condom use, tubal ligation, and oral contraceptives emerging as the most frequently employed methods [14, 15]. The popularity of tubal ligation, in particular, may be attributed to its permanency, perceived physical comfort, safety, and the absence of concerns surrounding method failure. Even though approximately one-third of the studied population does not currently employ any form of family planning, the overwhelming majority are cognizant of its existence [16, 17]. This disjunction between knowledge and practice underscores the persistence of a "KAP gap" a disparity between knowledge, attitudes, and practices among this demographic.

V. Conclusion

The findings of this study unequivocally demonstrate that, although the majority of women possess both considerable knowledge and a favorable attitude towards contraception, a significantly lower proportion merely 59% engage in the use of any contraceptive method. Bridging this knowledge-practice gap necessitates a multifaceted approach, with substantial investments required in the realms of information dissemination, educational reform, and strategic communication initiatives. Existing programs must be robustly reinforced, and policy structures recalibrated to ensure a more effective promotion of contraceptive uptake.

VI. Recommendations

The study's findings suggest a clear positive correlation between increasing educational attainment and enhanced contraceptive awareness. Despite the broad knowledge base and favorable attitudes evidenced by most respondents, the knowledge-practice gap remained stark, aligning with the findings of similar studies conducted in other developing countries. To mitigate these challenges, more efficacious educational interventions targeting women must be designed and implemented, alongside efforts to significantly improve access to contraceptive services. For family planning awareness campaigns to be effective, communication strategies must be meticulously tailored to the cultural and cognitive contexts of the target audience, ensuring that the messaging is resonant and comprehensible. Educational efforts must extend to healthcare professionals and the general populace alike, with a particular focus on disseminating accurate information about the safety, efficacy, and practical feasibility of modern, long-acting, reversible contraceptive methods. Additionally, healthcare providers should ensure that during each clinical interaction, couples are systematically informed about the full spectrum of contraceptive options to encourage informed decision-making and heightened utilization. Moreover, the cornerstone of any successful family planning initiative is the provision of uninterrupted access to contraceptives and comprehensive healthcare services at the community level; therefore, these resources must be made accessible on a 24/7 basis to meet the needs of the population.

Study Limitations - This is a hospital-based study.

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