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# PREVALENCE OF CONTRACEPTIVE USAGE AMONG MARRIED PREGNANT FEMALES AT PESSI, MNCH, KLP, LAHORE

Original Research (ID: 1698)

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## ABSTRACT

**Background:** Family planning is an important component of maternal and reproductive healthcare because it supports planned pregnancies, healthy birth spacing, and reduction of unintended pregnancies. Pregnant women attending antenatal clinics represent an important group for contraceptive counseling, particularly for postpartum family planning. However, contraceptive use before pregnancy and future contraceptive intentions are often not adequately assessed during routine antenatal care, especially in facility-based populations in Pakistan.

**Objective:** To evaluate the prevalence of contraceptive use among married pregnant women attending antenatal care and to identify the types of contraceptive methods used before the current pregnancy.

**Methods:** A descriptive cross-sectional study was conducted at the Gynecology and Obstetrics Department of Punjab Employees Social Security Institution, Maternal, Newborn and Child Healthcare Centre, Kot Lakhpat, Lahore. The study duration was nine months, from June 2025 to February 2026, while data collection was completed over one month. A total of 138 married pregnant women aged 18–45 years were recruited through convenience sampling during antenatal visits. Data were collected using a structured questionnaire adapted from a previously validated tool. The questionnaire included socio-demographic details, reproductive history, contraceptive awareness, previous contraceptive use, counseling, decision-making, barriers, and future intention. Data were analyzed using SPSS version 27, and descriptive statistics were presented as frequencies and percentages.

**Results:** The mean age of participants was 28.22 ± 4.58 years. Most participants were aged 26–33 years 73 (52.9%), housewives 101 (73.2%), and had Quranic education 66 (47.8%). Five or more pregnancies were reported by 38 (27.5%), and a birth interval of less than two years was reported by 81 (58.7%). Awareness of contraception was reported by 123 (89.1%) participants, while 58 (42.0%) had ever used contraception. Among users, male condoms were most common 36 (62.1%), followed by injectables 15 (25.9%), intrauterine contraceptive devices 12 (20.7%), oral pills 10 (17.2%), and implants 2 (3.4%). Counseling before contraceptive use was received by 31 (53.4%) users. Only 33 (23.9%) participants had used contraception before the current pregnancy. Future contraceptive intention was reported by 64 (46.4%), while 57 (41.3%) were unsure.

**Conclusion:** Contraceptive awareness was high, but previous use before the current pregnancy remained low. Spousal, social, and counseling-related factors appeared to influence contraceptive uptake, highlighting the need for routine antenatal and postpartum family planning counseling.

**Keywords:** Antenatal Care; Contraception; Contraceptive Prevalence; Family Planning Services; Pakistan; Postpartum Period; Pregnant Women.

 

## INTRODUCTION

Family planning is an essential component of reproductive and maternal health, as it allows individuals and couples to decide the number of children they wish to have and the appropriate spacing between pregnancies. The World Health Organization describes family planning as the use of methods that help prevent unintended pregnancies and support planned, well-timed births (1). Effective family planning contributes not only to improved reproductive autonomy but also to better maternal and neonatal outcomes by reducing the risks associated with closely spaced, mistimed, or unwanted pregnancies (2). In countries with a high maternal and child health burden, strengthening contraceptive awareness and practice remains an important public health priority. Contraceptive methods are generally classified into modern and traditional methods. Modern methods include hormonal pills and injectables, intrauterine devices, implants, condoms, and permanent procedures such as tubal ligation and vasectomy, whereas traditional methods include withdrawal, periodic abstinence, lactational amenorrhea, and calendar-based practices (3). Although modern contraceptives are generally more reliable, traditional methods continue to be used in many communities because of cultural acceptance, affordability, limited access to health services, fear of side effects, and misconceptions regarding modern contraceptive options (4). Evidence from Pakistan also suggests that, despite the availability of modern family planning services, many women continue to depend on traditional or less effective methods, reflecting a persistent gap between contraceptive knowledge, access, and actual use (5).

Globally, contraceptive use is influenced by a wide range of social, cultural, economic, and health-system factors. Studies from different low- and middle-income settings have shown that women's autonomy, spousal communication, fertility preferences, education, service availability, and cultural beliefs strongly affect contraceptive decision-making (6,7). In some populations, shared decision-making between spouses has been associated with improved uptake of contraception, while fear of infertility, desire for more children, gender preference, and limited reproductive autonomy continue to restrict contraceptive use (6,7). Similar barriers have been reported among vulnerable groups, where cultural norms and lack of decision-making power further reduce access to family planning services (8). These findings highlight that contraceptive behavior is not determined by awareness alone, but by a complex interaction of personal, family, cultural, and healthcare-related factors. In Pakistan, progress in family planning has remained slow despite long-standing national programs. The Pakistan Demographic and Health Survey 2017–18 reported a contraceptive prevalence rate of 34% and an unmet need for family planning of 17% among married women, indicating that a substantial proportion of women still lack effective reproductive planning support (9). Previous local studies have identified important determinants of contraceptive use, including education, urban-rural residence, socioeconomic status, gender preference, availability of services, and the difference between knowledge and practice (10–12). However, much of the existing research has focused on married women of reproductive age in general community settings, including urban populations such as Karachi and rural populations such as Chiniot, while pregnant women attending antenatal services remain relatively underexplored (10,13).

Pregnancy represents a particularly important opportunity for family planning counseling because women are already in contact with the healthcare system and may be more receptive to information regarding birth spacing and postpartum contraception. However, contraceptive counseling is often not fully integrated into routine antenatal care, resulting in a missed opportunity to prepare women for safe and timely contraceptive use after delivery (14). Many women discontinue contraception before conception, use less effective methods, or remain unaware of suitable postpartum contraceptive options, which may contribute to repeated unintended pregnancies and short interpregnancy intervals (15). Evidence suggests that antenatal counseling can improve postpartum contraceptive uptake, but such counseling remains inconsistent and inadequately emphasized in many maternal healthcare settings (16,17). Pregnant women may also face unique barriers to future contraceptive use, including husband's disapproval, fear of side effects, myths about infertility, pressure for a male child, religious or cultural concerns, and limited personal decision-making authority (18). These issues are particularly important in facility-based antenatal populations, where healthcare providers have direct access to women but may not routinely assess their previous contraceptive use, method preferences, or intentions for postpartum family planning. There is limited facility-based evidence from maternal and child health centers in Lahore, including the Punjab Employees Social Security Institution Maternal, Newborn and Child Healthcare Centre, Kot Lakhpat, Lahore. This creates a practical knowledge gap regarding the contraceptive practices, previous method use, and reproductive intentions of married pregnant women attending such services.

The present study is therefore designed to address this gap by answering the research question: what is the prevalence of contraceptive use among married pregnant women attending the Gynecology and Obstetrics Department at PESSI MNCH, Kot Lakhpat, Lahore? By assessing the proportion of women who have ever used contraception and identifying the types of methods used before the current pregnancy, the study may provide useful evidence for improving antenatal counseling, strengthening postpartum family planning services, and promoting healthier birth spacing among pregnant women.

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## METHODOLOGY

This study was conducted using a descriptive cross-sectional design to determine the prevalence of contraceptive use among married pregnant women attending antenatal care services. The study was carried out in the Gynecology and Obstetrics Department of Punjab Employees Social Security Institution, Maternal, Newborn and Child Healthcare Centre, Kot Lakhpat, Lahore. The overall study duration was nine months, from June 2025 to February 2026, while the actual data collection was completed over a period of one month during routine antenatal clinic visits. The study population consisted of married pregnant women presenting to the antenatal clinic of the selected healthcare facility. A sample size of 138 participants was calculated using Slovin's formula, based on a total estimated population of 210 women and a 5% margin of error. The formula used was $n = N / 1 + Ne^2$, where n represented the required sample size, N represented the population size, and e represented the margin of error. By applying N = 210 and e = 0.05, the calculated sample size was approximately 137.7, which was rounded to 138 participants. Participants were recruited through non-probability convenience sampling, and all eligible women who attended the antenatal clinic during the data collection period were invited to participate.

Married women who were currently pregnant, aged between 18 and 45 years, and attending the Obstetrics and Gynecology Department at PESSI MNCH, Kot Lakhpat, Lahore, with at least one antenatal visit were included in the study. Pregnant women with serious medical or obstetric complications that limited their ability to participate were excluded. Women with hearing, speech, or cognitive impairments that interfered with communication were also excluded. Attendants, relatives, and other non-patient individuals present in the hospital during the data collection period were not considered eligible for participation. Data were collected using a structured questionnaire designed to obtain information regarding participants' demographic characteristics, reproductive history, previous contraceptive use, types of contraceptive methods used before the current pregnancy, and knowledge, attitudes, and practices related to contraception. Eligible participants were approached during their antenatal clinic visits and were informed about the purpose and nature of the study. Written informed consent was obtained before data collection. Participants who were able to read and understand English completed the questionnaire themselves. For participants who were unable to read English or preferred verbal administration, the questions were asked in their preferred language, and their responses were recorded by the data collectors. Privacy, confidentiality, and anonymity were maintained throughout the study, and no identifying information was disclosed in the analysis or reporting of results.

Ethical approval was obtained from the relevant institutional review board or ethical review committee before the initiation of data collection. Participation was voluntary, and participants were informed that they had the right to refuse or withdraw from the study at any stage without affecting their medical care. The collected data were used only for research purposes. After data collection, all questionnaires were reviewed for completeness, coded, and entered into SPSS version 27 for statistical analysis. Descriptive statistics were used to summarize the findings. Categorical variables, including contraceptive use, type of contraceptive method, education level, parity, and other demographic and reproductive characteristics, were presented as frequencies and percentages. Where applicable, continuous variables such as age were summarized using mean and standard deviation. For conditional or filter questions, responses marked as "not applicable" were excluded from the calculation of valid percentages. Open-ended and multiple-response items were coded and grouped into relevant categories before analysis. Only categories with participant responses were included in the final presentation of results. Findings were displayed using frequency distribution tables and graphs to provide a clear summary of contraceptive use patterns among the study participants.

## RESULTS

Data were analyzed for 138 married pregnant women. The age of the participants ranged from 19 to 40 years, with a mean age of 28.22 ± 4.58 years. More than half of the participants were in the 26–33-year age group 73 (52.9%), followed by 44 (31.9%) in the 18–25-year age group and 21 (15.2%) in the 34–41-year age group. The age at marriage ranged from 13 to 32 years, with a mean age of 20.83 ± 3.56 years. Most participants were married between 18 and 22 years of age 76 (55.1%), while 31 (22.5%) were married between 23 and 27 years, 23 (16.7%) between 13 and 17 years, and 8 (5.7%) at 28 years or above. All participants were married 138 (100.0%), in accordance with the inclusion criteria. Regarding educational status, Quranic education was reported by 66 (47.8%) participants, followed by secondary education in 32 (23.2%), primary education in 22 (15.9%), and no formal education in 18 (13.0%). Most participants were housewives 101 (73.2%), whereas 37 (26.8%) were working as factory workers. The duration of marriage ranged from 1 to 20 years, with a mean duration of 7.33 ± 4.17 years. Half of the participants had been married for 6–10 years 69 (50.0%), followed by 43 (31.2%) for 2–5 years, 22 (15.9%) for more than 10 years, and 4 (2.9%) for one year or less.

The number of pregnancies ranged from 1 to 10, with a mean of 3.77 ± 1.74 pregnancies. A total of 38 (27.5%) participants had five or more pregnancies, while 35 (25.4%) had two pregnancies, 35 (25.4%) had three pregnancies, 28 (20.3%) had four pregnancies, and 2 (1.4%) were experiencing their first pregnancy. The number of living children ranged from 0 to 6, with a mean of 2.09 ± 1.24 children. The highest proportion of participants had one living child 49 (35.5%), followed by two children in 35 (25.4%), three children in 29 (21.0%), four children in 14 (10.1%), no living child in 6 (4.3%), five children in 4 (2.9%), and six children in 1 (0.7%). The birth interval ranged from 3 to 120 months, with a mean interval of 30.55 ± 19.91 months. A birth interval of less than 24 months was reported by 81 (58.7%) participants, while 57 (41.3%) reported a birth interval of 24 months or more. The desired number of children ranged from 1 to 6, with a mean desired family size of 3.30 ± 0.95 children. The most commonly reported desired family size was four children 56 (40.6%), followed by three children 41 (29.7%), two children 30 (21.7%), five or more children 7 (5.1%), and one child 4 (2.9%).

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The most frequently reported factor influencing desired family size was the desire for a son 44 (31.9%), followed by unintentional pregnancy 32 (23.2%), achieving the desired family size 21 (15.2%), desire for a daughter 12 (8.7%), in-law pressure 11 (8.0%), previous abortions or miscarriages 11 (8.0%), and husband's non-compliance 7 (5.1%).

Overall, 123 (89.1%) participants had heard about contraception, while 15 (10.9%) had not heard about it. Among participants who had heard about contraception, the most commonly reported benefit was spacing childbirth 82 (66.7%), followed by prevention of unwanted pregnancy 18 (14.6%), limiting family size 17 (13.8%), and ensuring desired pregnancy 6 (4.9%). The main source of information was family members 79 (64.2%), followed by doctors 26 (21.1%), antenatal care clinics 10 (8.1%), spouse 5 (4.1%), and social media 3 (2.4%). Among participants who had heard about contraception, 37 (30.1%) had sought professional advice, whereas 86 (69.9%) had not. Among those who sought professional advice, 27 (73.0%) obtained it from a family planning clinic and 10 (27.0%) from an antenatal care clinic. The prevalence of ever use of contraception was 58 (42.0%), while 80 (58.0%) participants had never used any contraceptive method. Among participants who had ever used contraception, the male condom was the most commonly used method 36 (62.1%), followed by injectable contraception 15 (25.9%), intrauterine contraceptive device 12 (20.7%), oral contraceptive pills 10 (17.2%), and implant 2 (3.4%). Multiple responses were allowed for contraceptive methods; therefore, the total percentage exceeded 100%.

Among contraceptive users, 31 (53.4%) had received counseling before contraceptive use, while 27 (46.6%) had not received counseling. The decision regarding the type of contraceptive method was made jointly by both spouses in 43 (74.1%) cases, by the doctor in 11 (19.0%) cases, and by the spouse alone in 4 (6.9%) cases. Most users reported a satisfactory experience with contraception 39 (67.2%), while 11 (19.0%) reported an unsatisfactory experience and 8 (13.8%) reported an indifferent experience. Use of contraception before the current pregnancy was reported by 33 (23.9%) participants, while 105 (76.1%) had not used contraception before the current pregnancy. Among those who had not used contraception before the current pregnancy, the most common reasons were other personal or social reasons 45 (42.9%) and spouse objection 39 (37.1%), followed by irregular bleeding 13 (12.4%) and fertility concerns 8 (7.6%). Among participants who had never used contraception, the reported reasons for non-use included other personal or social reasons 30 (37.5%), spouse objection 28 (35.0%), religious beliefs 8 (10.0%), fertility concerns 6 (7.5%), fear of side effects 5 (6.3%), irregular bleeding 2 (2.5%), and lack of access 1 (1.3%).

Regarding future contraceptive intention, 64 (46.4%) participants planned to use contraception in the future, 57 (41.3%) were not sure, and 17 (12.3%) did not intend to use contraception. Hospitals and dispensaries were equally preferred as places for family planning services, each reported by 59 (42.8%) participants, while 20 (14.5%) had no specific preference.

**Table 1. Socio-demographic characteristics of participants**

| Variable | Category | n (%) |
|---|---|---|
| **Age, years** | 18–25 | 44 (31.9) |
| | 26–33 | 73 (52.9) |
| | 34–41 | 21 (15.2) |
| | Mean ± SD | 28.22 ± 4.58 |
| **Age at marriage, years** | 13–17 | 23 (16.7) |
| | 18–22 | 76 (55.1) |
| | 23–27 | 31 (22.5) |
| | ≥28 | 8 (5.7) |
| | Mean ± SD | 20.83 ± 3.56 |
| **Marital status** | Married | 138 (100.0) |
| **Educational level** | Illiterate | 18 (13.0) |
| | Quranic education | 66 (47.8) |
| | Primary education | 22 (15.9) |
| | Secondary education | 32 (23.2) |
| **Occupation** | Housewife | 101 (73.2) |
| | Factory worker | 37 (26.8) |

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|---|---|---|
| **Duration of marriage, years** | ≤1 | 4 (2.9) |
| | 2–5 | 43 (31.2) |
| | 6–10 | 69 (50.0) |
| | >10 | 22 (15.9) |
| | Mean ± SD | 7.33 ± 4.17 |

**Note:** Percentages were calculated out of total participants, N = 138.

**Table 2. Reproductive characteristics and fertility preferences of participants**

| Variable | Category | n (%) |
|---|---|---|
| **Number of pregnancies** | 1 | 2 (1.4) |
| | 2 | 35 (25.4) |
| | 3 | 35 (25.4) |
| | 4 | 28 (20.3) |
| | ≥5 | 38 (27.5) |
| | Mean ± SD | 3.77 ± 1.74 |
| **Number of living children** | None | 6 (4.3) |
| | 1 | 49 (35.5) |
| | 2 | 35 (25.4) |
| | 3 | 29 (21.0) |
| | 4 | 14 (10.1) |
| | 5 | 4 (2.9) |
| | 6 | 1 (0.7) |
| | Mean ± SD | 2.09 ± 1.24 |
| **Birth interval** | <24 months | 81 (58.7) |
| | ≥24 months | 57 (41.3) |
| | Mean ± SD, months | 30.55 ± 19.91 |
| **Desired number of children** | 1 | 4 (2.9) |
| | 2 | 30 (21.7) |
| | 3 | 41 (29.7) |
| | 4 | 56 (40.6) |
| | ≥5 | 7 (5.1) |
| | Mean ± SD | 3.30 ± 0.95 |
| **Factors influencing desired family size** | Desire for a son | 44 (31.9) |
| | Unintentional pregnancy | 32 (23.2) |
| | Achieved desired family size | 21 (15.2) |
| | Desire for a daughter | 12 (8.7) |
| | In-law pressure | 11 (8.0) |

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| | | |
|---|---|---|
| | Abortions/miscarriages | 11 (8.0) |
| | Husband's non-compliance | 7 (5.1) |

**Note:** Percentages were calculated out of total participants, N = 138.

**Table 3. Knowledge, contraceptive use, and family planning practices among participants**

| Variable | Category | n/N (%) |
|---|---|---|
| **Ever heard of contraception** | Yes | 123/138 (89.1) |
| | No | 15/138 (10.9) |
| **Perceived benefits of contraception** | Spacing childbirth | 82/123 (66.7) |
| | Preventing unwanted pregnancy | 18/123 (14.6) |
| | Limiting family size | 17/123 (13.8) |
| | Ensuring desired pregnancy | 6/123 (4.9) |
| **Main source of information** | Family members | 79/123 (64.2) |
| | Doctors | 26/123 (21.1) |
| | ANC clinic | 10/123 (8.1) |
| | Spouse | 5/123 (4.1) |
| | Social media | 3/123 (2.4) |
| **Ever sought professional advice** | Yes | 37/123 (30.1) |
| | No | 86/123 (69.9) |
| **Place where advice was obtained** | Family planning clinic | 27/37 (73.0) |
| | ANC clinic | 10/37 (27.0) |
| **Ever used contraception** | Yes | 58/138 (42.0) |
| | No | 80/138 (58.0) |
| **Types of contraceptive methods used** | Male condom | 36/58 (62.1) |
| | Injectable | 15/58 (25.9) |
| | IUCD | 12/58 (20.7) |
| | Oral pills | 10/58 (17.2) |
| | Implant | 2/58 (3.4) |
| **Received counseling before contraceptive use** | Yes | 31/58 (53.4) |
| | No | 27/58 (46.6) |
| **Decision-maker for contraceptive method** | Joint decision | 43/58 (74.1) |
| | Doctor | 11/58 (19.0) |
| | Spouse alone | 4/58 (6.9) |
| **Experience with contraception** | Satisfactory | 39/58 (67.2) |
| | Unsatisfactory | 11/58 (19.0) |
| | Indifferent | 8/58 (13.8) |
| **Used contraception before current pregnancy** | Yes | 33/138 (23.9) |

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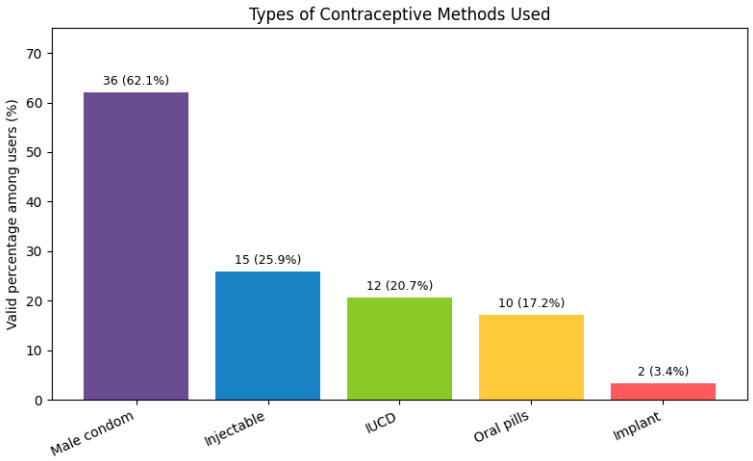
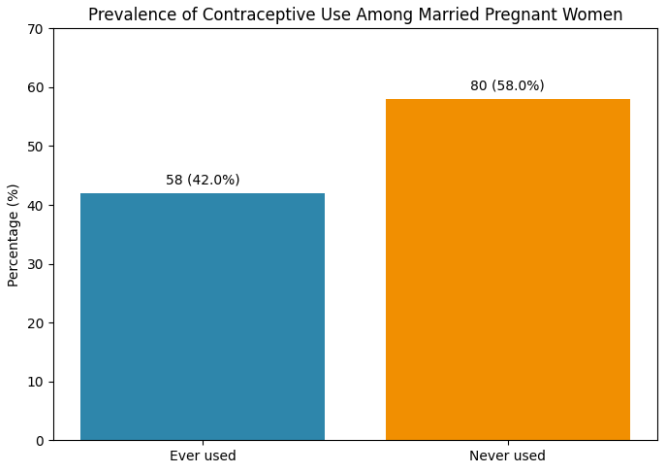
| | | |
|---|---|---|
| | No | 105/138 (76.1) |
| **Reasons for non-use before current pregnancy** | Other reasons | 45/105 (42.9) |
| | Spouse objection | 39/105 (37.1) |
| | Irregular bleeding | 13/105 (12.4) |
| | Fertility concern | 8/105 (7.6) |
| **Reasons for never using contraception** | Other reasons | 30/80 (37.5) |
| | Spouse objection | 28/80 (35.0) |
| | Religious belief | 8/80 (10.0) |
| | Fertility concern | 6/80 (7.5) |
| | Fear of side effects | 5/80 (6.3) |
| | Irregular bleeding | 2/80 (2.5) |
| | Lack of access | 1/80 (1.3) |
| **Future intention to use contraception** | Yes | 64/138 (46.4) |
| | Not sure | 57/138 (41.3) |
| | No | 17/138 (12.3) |
| **Preferred place for family planning services** | Hospital | 59/138 (42.8) |
| | Dispensary | 59/138 (42.8) |
| | No idea | 20/138 (14.5) |

**Note:** Valid percentages were calculated using the relevant denominator for each filter question. Multiple responses were allowed for contraceptive methods used; therefore, percentages for contraceptive methods may exceed 100%.




## DISCUSSION

The present study assessed the prevalence and pattern of contraceptive use among 138 married pregnant women attending the Gynecology and Obstetrics Department of Punjab Employees Social Security Institution, Maternal, Newborn and Child Healthcare Centre, Kot Lakhpat, Lahore. The findings showed that although awareness of contraception was high, actual use remained comparatively low. This reflected an important knowledge-practice gap among pregnant women, particularly in relation to contraceptive use before the current pregnancy and future postpartum family planning intentions. Most participants belonged to the 26–33-year age group, with a mean age of 28.22 ± 4.58 years. This showed that the majority of women were in their peak reproductive years, when fertility and pregnancy-related healthcare needs are usually highest. Similar age patterns have been reported in previous reproductive health studies, where most contraceptive users and antenatal women were within the 25–34-year age range (19,20). The mean age at marriage in the present study was 20.83 ± 3.56 years, and more than half of the participants had married between 18 and 22 years of

age. This pattern was consistent with the broader South Asian context, where early marriage remains common and increases the duration of reproductive exposure during a woman's lifetime (21,22).

Educational status appeared to be an important background factor in this population. Nearly half of the participants had Quranic education, while fewer had completed formal primary or secondary education. Although most women had received some form of education, formal schooling remained limited. Previous literature has consistently shown that women's education improves reproductive health awareness, contraceptive decision-making, autonomy, and service utilization (12,23). Limited formal education may therefore partly explain why awareness of contraception was high, but professional advice-seeking and pre-pregnancy contraceptive use remained low in the present study. The reproductive profile of the participants indicated relatively high fertility exposure. The mean number of pregnancies was 3.77 ± 1.74, and more than one-quarter of the women had experienced five or more pregnancies. This finding was slightly higher than the national total fertility rate reported for Pakistan, suggesting that the study population had a considerable reproductive burden (14,24). The mean number of living children was 2.09 ± 1.24, which was lower than the mean number of pregnancies. This difference may be explained by previous miscarriages, stillbirths, pregnancy losses, or other obstetric events, as discrepancies between gravidity and live births are common in settings where maternal health risks and short birth intervals remain prevalent (23).

A particularly important finding was that 58.7% of participants reported a birth interval of less than 24 months. Although the mean birth interval was 30.55 ± 19.91 months, the high proportion of women with short intervals indicated that many pregnancies had occurred before the recommended spacing period. International recommendations emphasize adequate spacing between a live birth and the next conception to reduce maternal, neonatal, and infant health risks (23). Short birth intervals have been associated with increased risks of maternal anemia, preterm birth, low birth weight, and adverse neonatal outcomes. In the present study, the high frequency of short birth intervals was consistent with the low proportion of women who had used contraception before the current pregnancy. This suggested that inadequate postpartum family planning and limited continuation of contraceptive use may have contributed to closely spaced pregnancies (25). The desired family size also reflected important cultural and reproductive preferences. Most participants desired three or four children, and the mean desired number of children was 3.30 ± 0.95. Preference for a moderately large family remains common in Pakistan and is shaped by social, cultural, and economic expectations (12). The most frequently reported factor influencing family size was the desire for a male child. This finding was in agreement with previous evidence from South Asian populations, where son preference has been recognized as a strong determinant of fertility behavior, repeated pregnancies, and delayed contraceptive adoption (26). In such settings, women may continue childbearing until the desired sex composition of children is achieved, even when they are aware of contraception.

The study found a high level of general awareness regarding contraception, as 89.1% of participants had heard about contraceptive methods. This finding was consistent with previous studies from low- and middle-income settings, where awareness of contraception among married women was generally high (27). However, awareness alone did not translate into adequate use. Only 42.0% of participants had ever used contraception, and only 23.9% had used contraception before the current pregnancy. This gap between knowledge and practice has also been reported in previous reproductive health studies, where social barriers, fear of side effects, partner opposition, misinformation, and lack of structured counseling limited contraceptive uptake despite awareness (28). Among women who were aware of contraception, most identified birth spacing as the main benefit. Fewer women associated contraception with limiting family size or preventing unwanted pregnancy. This indicated that contraception was largely viewed as a spacing method rather than a broader reproductive planning strategy. Similar patterns have been observed in developing countries, where women may accept contraception for temporary spacing but remain hesitant to use it for limiting fertility because of cultural expectations, gender preference, or family pressure (9,17). This finding highlighted the need for counseling messages that explain contraception as a safe and acceptable method for both healthy birth spacing and planned family size.

Family members were the most common source of contraceptive information, followed by doctors, while antenatal care clinics were reported as a source by only a small proportion of participants. This was an important finding because pregnant women were already attending healthcare services, yet only limited contraceptive information appeared to be delivered through antenatal care. This suggested a missed opportunity for integrating family planning counseling into routine maternal health visits. Previous literature has emphasized that family planning counseling during antenatal and postpartum care improves informed choice, timely initiation, and continuation of contraceptive methods (12). In the present study, only 30.1% of women who had heard about contraception had ever sought professional advice, further supporting the need to strengthen provider-led counseling. The pattern of contraceptive methods used showed that male condoms were the most frequently reported method among users, followed by injectables, intrauterine contraceptive devices, oral pills, and implants. The predominance of condoms suggested reliance on a short-acting and male-controlled method. Although condoms are accessible and non-invasive, their effectiveness depends heavily on correct and consistent use. Lower use of long-acting reversible contraceptives, particularly implants and intrauterine devices, may reflect limited counseling, fear of side effects, lack of awareness, provider-related barriers, or cultural hesitation. Similar trends have been reported in low- and middle-income settings, where short-acting methods are often preferred due to ease of use, reversibility, and community acceptance (21).

Counseling before contraceptive use was reported by slightly more than half of contraceptive users, while nearly half had used contraception without prior counseling. This finding was important because inadequate counseling can affect method choice, correct use, satisfaction, and continuation. Counseling allows women and couples to understand method effectiveness, side effects, warning signs, switching options, and postpartum suitability. Evidence has shown that structured contraceptive counseling improves informed decision-making and reduces discontinuation caused by misconceptions or unmanaged side effects (9). In the present study, most contraceptive users reported a satisfactory experience, which may indicate that appropriate method selection and counseling can improve user satisfaction. Decision-making regarding contraceptive method was mostly joint between husband and wife. This finding suggested that spousal involvement played a major role in contraceptive behavior among the study population. Joint decision-making may support contraceptive use when both partners agree; however, the findings also showed that spouse objection was one of the leading reasons for non-use. This dual role of the spouse reflected the broader patriarchal context in which male support can either facilitate or restrict women's reproductive choices. Previous studies have similarly reported that male partner involvement and approval strongly influence contraceptive uptake in societies where reproductive decisions are often family-centered rather than individually made (15,19).

The low use of contraception before the current pregnancy was one of the most relevant findings of the study. Only 23.9% of all participants had used contraception before becoming pregnant, while 76.1% had not. This finding was consistent with the high proportion of short birth intervals observed in the study. Among women who had not used contraception before the current pregnancy, the leading reasons were other personal or social reasons, spouse objection, irregular bleeding, and fertility concerns. Among women who had never used contraception, spouse objection, religious beliefs, fertility concerns, fear of side effects, irregular bleeding, and lack of access were reported. The very low proportion reporting lack of access suggested that non-use was driven more by social, cultural, relational, and perceptual barriers than by physical unavailability of services. Similar findings have been reported in previous studies, where sociocultural resistance and misconceptions were often stronger barriers than service access alone (4, 14). Future contraceptive intention showed a potentially favorable trend, as 46.4% of participants intended to use contraception in the future. However, 41.3% remained uncertain, which represented a large group that could benefit from focused antenatal and postpartum counseling. Only 12.3% reported no intention to use contraception. This finding suggested that many pregnant women were not firmly opposed to contraception but required clearer information, reassurance, partner involvement, and accessible services to support decision-making. Hospitals and dispensaries were equally preferred for family planning services, indicating that women trusted general healthcare settings for contraceptive care. Integrating family planning services within antenatal clinics, delivery units, postnatal care, and primary healthcare dispensaries may therefore improve uptake and continuity of use (12).

The findings of this study had several practical implications. First, antenatal care visits should be used as a routine platform for postpartum family planning counseling. Second, counseling should not be limited to women only but should also address spousal communication, partner support, myths, fear of side effects, and gender preference. Third, healthcare providers should explain both short-acting and long-acting contraceptive options in a balanced way so that women can make informed choices according to their reproductive goals. Fourth, women with short birth intervals, higher gravidity, and uncertain future contraceptive intentions should be prioritized for targeted counseling before delivery and during the postpartum period (11,23). The study had several strengths. It focused specifically on married pregnant women, a group that is often underrepresented in contraceptive studies despite frequent contact with healthcare services during antenatal care. The study also assessed multiple dimensions of contraceptive behavior, including awareness, previous use, method pattern, counseling, decision-making, reasons for non-use, and future intentions. This provided a broader understanding of contraceptive practices and barriers among pregnant women in a facility-based setting.

The study also had limitations. It was conducted in a single healthcare facility, which may limit the generalizability of the findings to other public, private, rural, or community-based settings. The use of non-probability convenience sampling may have introduced selection bias and reduced representativeness. The cross-sectional design allowed assessment of prevalence and patterns but did not establish causal relationships between participant characteristics and contraceptive use. The use of self-reported data may have introduced recall bias and social desirability bias, particularly for sensitive issues such as contraceptive use, spouse objection, and reproductive preferences. The questionnaire was based on a previously published and content-validated instrument and was pilot tested; however, no statistical reliability measure, such as Cronbach's alpha, was reported in the original tool. In addition, the category of "other reasons" limited detailed interpretation of important barriers to contraceptive non-use. Future research should include larger multicenter studies involving public and private healthcare facilities, rural and urban populations, and community-based samples. Analytical studies should explore associations between contraceptive use and factors such as education, parity, birth interval, counseling, husband's approval, socioeconomic status, and fertility preference. Qualitative research may also help explore the meaning of "other reasons" for non-use, including myths, family pressure, religious concerns, fear of infertility, and gender preference. Interventional studies assessing the effect of structured antenatal contraceptive counseling on postpartum contraceptive uptake would be particularly useful for improving maternal and child health services.

Overall, the study demonstrated that contraceptive awareness among married pregnant women was high, but lifetime use and use before the current pregnancy remained low. The findings indicated that contraceptive behavior was shaped not only by knowledge but also by spousal influence, fertility preferences, counseling exposure, and sociocultural factors. These results supported the need to strengthen

antenatal family planning counseling, involve husbands where appropriate, and improve postpartum contraceptive planning within routine maternal healthcare services.

## CONCLUSION

The study concluded that contraceptive awareness among married pregnant women attending PESSI MNCH, Kot Lakhpat, Lahore, was high, but actual use before the current pregnancy remained limited. The findings showed a clear gap between knowledge and practice, with contraceptive behavior strongly influenced by spousal involvement, social expectations, fertility concerns, and limited structured counseling rather than access alone. The study highlighted the need to strengthen antenatal and postpartum family planning services by integrating routine counseling into maternal healthcare visits, encouraging couple-based decision-making, addressing myths and fears regarding contraceptive methods, and promoting informed choices for healthy birth spacing and improved maternal and child health outcomes.

## AUTHOR CONTRIBUTION

| Author | Contribution |
|---|---|
| Aqsa Rafiq | Conceptualization, Methodology, Formal Analysis, Writing - Original Draft, Validation, Supervision |
| Tasmia Tariq | Methodology, Investigation, Data Curation, Writing - Review & Editing |
| Huma Amjad | Investigation, Data Curation, Formal Analysis, Software |
| Wajiha Aslam | Software, Validation, Writing - Original Draft |
| Kiran Shehzadi | Formal Analysis, Writing - Review & Editing |
| Amina Islam | Writing - Review & Editing, Assistance with Data Curation |
| Ali Hamza | Investigation, Data Curation, Formal Analysis |
| Razia Parveen | Formal Analysis, Review & Editing |

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