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FACTORS OF NON-USE OF CONTRACEPTION IN PATIENTS PRESENTING FOR INDUCED ABORTION

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Abstract

Objective:
To explore the factors associated with the non-use of contraceptives among women seeking to undergo induced abortion in a tertiary care hospital.

Study Design:
Cross-sectional study.

Place and Duration of Study:
Department of Obstetrics and Gynecology, Unit II, at Bhatti International Teaching Hospital, Kasur, during the period of August 2021 to January 2022.

Methodology:
A total of 250 married women aged 18–40 years with a gestational age ranging between 8–16 weeks seeking for induced abortion were included through non-probability consecutive sampling. Women with spontaneous miscarriages or therapeutic abortions were excluded. Data were analyzed using SPSS version 27. Normality was assessed using the Shapiro–Wilk test. Categorical variables were reported as frequencies and percentages, while continuous variables were reported as mean±SD. Chi-square test was used to assess association, and $p<0.05$ was considered statistically significant.

Results:
The participants had a mean age of 28.4 years ± 6.8 and a mean BMI of 26.7 ± 3.9. Fear of side effects (20.4%), misconceptions (20.8%), dislike from husband (19.2%), lack of awareness (21.2%), and lack of access (29.2%) were the major reasons for non-use of contraception. Gravidity and parity had significant associations with previous abortion ($p < 0.001$) and with dislike from husband ($p = 0.001$). Level of education was significantly associated with misconceptions ($p < 0.001$). Socioeconomic status had significant associations with lack of access ($p < 0.001$) and lack of awareness ($p = 0.035$).

Conclusion:
Higher gravidity and higher parity, lower educational status, and a lower socioeconomic class were significant determinants of contraceptive non-use.

INTRODUCTION

Reasons for non-use of contraception among patients attending for induced abortion remain an ongoing public health challenge globally and locally. Women experience an unplanned pregnancy, willingly undergo abortion, and although there is widespread knowledge and availability of contraceptive methods, or unmet contraceptive needs, they are either not using contraceptives or do not disclose that they have used contraceptives. Research has indicated that inadequate use of contraceptives can arise from more than just contraceptive knowledge but from socio-demographic, behavioral, and systemic issues. For example, a study in India, a cross-sectional survey observed that while 99.2% of women seeking abortion were aware of contraception, lower than conclusively, having disclosed being a contraceptive user at three months before the abortion was documented at a proportion of 43.8% (1). The two main frequently cited reasons were unplanned or infrequent sexual activity and fear of side effects reflect patterns of contraceptive non-use that are prevalent in many low and middle-income countries (LMICs), as health concerns and unplanned sexual activity were major factors (2).

At the local level, a better appreciation of unmet contraceptive needs and remaining unknown about outcomes or the best ways to estimate them should be an important aspect of remedial work. In Pakistan, induced abortion statistics remain significantly high, with unmet contraceptive needs as the driving force in any contraceptive behavior to commence timely euthanasia, which reflects an ongoing trend in other LMICs. In a global context, over half of women in the United States who seek abortion services reported not using an effective method of contraception at the time of conception and additionally, each of these women also faced barriers based on factors such as fear of side effects (3)and access both to contraception and to the means (a partner) to obtain or use contraception. In Rwanda, data also demonstrate that uptake of contraception post-abortion has been low and is likewise associated with marital status and male partner involvement in contraceptive decision-making(4).

We are focusing on instances of contraceptive non-use with abortion seekers to better inform interventions to reduce unintended pregnancies and unsafe abortions. Variations in sociodemographic and behavioral determinants allow healthcare providers an opportunity to provide patients with counseling, flexibility to use or not use a method as they develop their contraceptive agenda, and to not put restrictions on a partner's involvement. These interventions reflect pillars of global reproductive health goals on improving health outcomes for mothers through access to family planning and the provision of contraception following an abortion.

Methodology:

This cross-sectional study was carried out at Unit II, Department of Obstetrics and Gynecology, Bhatti International Teaching Hospital, Kasur, after receiving approval from the Institutional Ethical Review Board. The study was conducted over a six-month interval following the approval of the synopsis. The purpose of the study, as well as issues of confidentiality, were thoroughly explained to each subject before data collection.

Inclusion criteria: Married females, any parity, ages 18–40, presenting with a gestational age of between 8–16 weeks (based on last menstrual period), and seeking an induced abortion. Exclusion criteria: Females with spontaneous miscarriages, therapeutic abortions, or pregnancy related to an illegal relationship based on the history.

Using the World Health Organization (WHO) sample size calculator for a single proportion, a sample size of 250 was determined. The expected proportion of misconceptions surrounding contraceptive use among the non-users was estimated to be 6.2% with a confidence level of 95% and a margin of error of 3%, which required a sample size of 250 participants.

A non-probability consecutive sampling technique was used. All eligible married females who presented consecutively to the labor or gynecology wards during the study period met the inclusion criteria and were recruited to participate until the sample size was met.

Demographic and obstetric data, namely age, gestational age, parity, body mass index (BMI), educational status, and socio-economic class, were gathered on a structured proforma designed for this purpose. Socio-economic status was classified into

low (< 30,000 PKR/month), middle (30,000–75,000 PKR/month), and high (> 75,000 PKR/month) on the basis of monthly household income. Subsequently, each participant was interviewed by the principal investigator to determine the reasons for the non-use of contraceptives. Reasons included method failure, spousal disapproval, fear of side effects, lack of access, lack of knowledge, and misconceptions.

Data collection occurred in a private area to protect confidentiality and improve the accuracy of reporting. All responses were recorded on the structured questionnaire by the researcher directly.

Statistical analysis: Data were entered and analyzed using the Statistical Package for the Social Sciences SPSS version 27. The Shapiro–Wilk test indicated that BMI was the only normally distributed variable ($p = 0.621$). All other variables tested were not normally distributed, including age ($p < 0.001$), gestational age ($p < 0.001$), gravidity ($p < 0.001$), parity ($p < 0.001$), education level ($p < 0.001$), socioeconomic status ($p < 0.001$), previous abortion ($p < 0.001$), method failure ($p < 0.001$), husband's dislike ($p < 0.001$), fear of side effects ($p < 0.001$), lack of access ($p < 0.001$), lack of knowledge ($p < 0.001$), and misconceptions ($p < 0.001$).

Continuous variables (age, BMI, and gestational age) were summarized as mean ± standard deviation (SD). Categorical variables (education, socio-economic status, and reasons for non-use of contraception) were summarized as frequencies and percentages. Post-stratification chi-square test was used to assess the relationship between the non-use of contraceptives and age, gestational age, parity, BMI, education level, or socio-economic class. A p-value of ≤0.05 was considered statistically significant.

Results:

The participants in the study had an average age of 28 years, with an interquartile range (IQR) of 2 years. Their average body mass index (BMI) was 26.69 ± 3.98 kg/m², which suggests that the majority of participants were classified as overweight. At the assessment time, the median gestational age was reported as 12 weeks (IQR = 8 weeks).

Variable	n	Mean±SD
Age (years)(Median(IQR))	250	28(2)
BMI (kg/m²)	250	26.69±3.98
Gestational age (weeks)(Median(IQR))	250	12(8)

In terms of sociodemographic and obstetric characteristics of the participants, most women had secondary education (39.2%), followed by graduates (20.0%). While 18.4% had primary education, only 16.0% were illiterate, and 6.4% graduated from postgraduate courses. Most women were from the middle socioeconomic class (48.0%), followed by the lower class (43.2%), and finally the upper class (8.8%).

In terms of reproductive history, 18.8% had an abortion before, and 81.2% had none. The reasons related to non-use of contraceptive methods were: failure of contraceptive methods was 17.6%, husband does not like it was 19.2%, fear of side effects was 20.4%, lack of access was 29.2%, lack of knowledge was 21.2%, and misconceptions were 20.8%.

Variable	Frequency (n)	Percentage (%)
Education level		
Illiterate	40	16.0
Primary	46	18.4
Secondary	98	39.2
Graduate	50	20.0
Postgraduate	16	6.4

Socioeconomic status		
Low	108	43.2
Middle	120	48.0
High	22	8.8
Previous abortion		
Yes	47	18.8
No	203	81.2
Failure of the contraceptive method		
Yes	44	17.6
No	206	82.4
Husband's dislike		
Yes	48	19.2
No	202	80.8
Fear of side effects		
Yes	51	20.4
No	199	79.6
Lack of access		
Yes	73	29.2
No	177	70.8
Lack of awareness		
Yes	53	21.2
No	197	78.8
Misconceptions		
Yes	52	20.8
No	198	79.2

The chi-square test was used for the evaluation of the association between sociodemographic and reproductive variables. Gravidity and parity were both statistically significantly associated with a history of abortions ($p < 0.001$), meaning that women who were either higher in gravidity or parity were more likely to report a history of surgical or medical abortions. Gravidity and parity were also both significantly associated with the husband's aversion to contraceptive use ($p = 0.001$).

Education was statistically significantly associated with misconceptions on contraceptive use ($p < 0.001$), indicating that women with less educational achievement were more likely to have misconceptions compared to women with more educational achievement. Socioeconomic status was significantly related to both lack of access ($p < 0.001$) and lack of knowledge ($p = 0.035$), indicating women from lower socioeconomic groups have more barriers to access and knowledge of family planning.

Independent Variable	Dependent Variable	Frequency (%)	p-value
Gravidity	Previous abortion		
	Yes	47 (18.8%)	<0.001
	No	203 (81.2%)	
Parity	Previous abortion		
	Yes	47 (18.8%)	<0.001
	No	203 (81.2%)	
Gravidity	Husband's dislike		
	Yes	48 (19.2%)	0.001

	No	202 (80.8%)	
Parity	Husband's dislike		
	Yes	48 (19.2%)	0.001
	No	202 (80.8%)	
Education Level	Misconception		
	Yes	52 (20.8%)	<0.001
	No	198 (79.2%)	
Socioeconomic Status	Lack of access		
	Yes	73 (29.2%)	<0.001
	No	177 (70.8%)	
Socioeconomic Status	Lack of awareness		
	Yes	53 (21.2%)	0.035
	No	197 (78.8%)	

Discussion:

The current study examined the factors associated with not using contraception among women seeking an induced abortion. The participants' mean age was 28 years, and the median gestational age was 12 weeks, with most participants classified as overweight (mean BMI 26.69 ± 3.98 kg/m²). Educational background was diverse, with most women having completed secondary education (39.2%), and from the middle (48.0%) and low (43.2%) socioeconomic classes. Approximately one-fifth of the women reported a previous abortion. Various reasons for non-use were identified, including contraceptive failure, husband disapproval, concern about side effects, access issues, not knowing anything about contraception, and misconceptions about available methods. Relevant associations were found between the variables, including between gravidity and parity with abortion history and partner disapproval, and between education with misconceptions, and between socioeconomic status (lower) with access and knowledge.

Contraceptive failure, which was cited by 17.6% of participants, is a known cause of unintended pregnancy leading to abortion. Our prevalence is consistent with Khalid et al. (2025), who noted failure rates between 12% and 20% in a similar population, particularly where short-acting or traditional methods are prevalent(5). The abortion risk associated with failure is exacerbated by missing doses or improper use of contraception, as well as poor counseling about using effective methods (6). Additionally, the rates of discontinuation experienced because of side effects and incorrect beliefs remain considerable (6,7). Our results indicate that 20.4% of women indicated concerns about side effects, and 20.8% had incorrect beliefs that align with this.

The influence of male partners, specifically a husband's disapproval, was quite notable at 19.2%. Increasingly, literature acknowledges male partner influence as a valid factor in contraceptive non-use and reproductive decision-making. Kriel et al. reported that 10-15% of women in low- and middle-income environments did not use contraception due to partner disapproval; this number aligns with our study's higher finding, although it may vary by region(8). Gender norms and decision-making power within couples have been potential factors contributing to contraception decisions(8). Tesfa et al. (2023) similarly found that male partner attitudes correspond with women's reproductive autonomy to influence unintended pregnancy rates(9).

Women also reported fear of side effects as a barrier (20.4%), and this phenomenon is well-documented at a global scale; fear of side effects often prevented women from using contraception at all. Zhang et al. (2024) presented evidence that misconceptions about hormonal contraceptive safety relate to discontinuation or avoidant behavior, while recognizing that serious side effects rarely occur(10). Counseling and education are thus important to society; agencies and providers should place focus on education and counseling (11). Our statistical association between lower education status and

misinformation about contraception is consistent with prior findings(12). Harris (2022) noted that having higher education levels will limit misinformation about contraceptive articles and shared that education relates to higher contraceptive use rates(13).

Our findings showed that lack of access (29.2%) and knowledge (21.2%) were prevalent in our sample and were both strongly associated with lower socioeconomic status. This may align with a global narrative that perceived economic disadvantage limits access to contraceptive services due to cost, availability, and healthcare system gaps(14). Thompson et al. (2023) similarly identified that women from economically marginalized groups face multi-faceted barriers, including, but not limited to, transportation expenses, clinic hours, and provider bias. Addressing structural barriers can improve contraceptive coverage and birth control use to (15), facilitate a decrease in unplanned pregnancies(15,16). The relationship of socioeconomic status with both lack of access and lack of knowledge observed in our sample was consistent with these findings.

Furthermore, the significant relationships between gravidity and parity as they relate to abortion history in our findings are consistent with previous investigations, which have reported that women with multifarious amounts of pregnancies have higher rates of unintended pregnancies and experiences of abortion (5). This relationship of gravidity and parity may be reflective of cumulative risk of exposure and pre-existing fertility intentions around pregnancies(17). Furthermore, the relationships between parity, gravidity, and aversion to partner contraceptive behaviors provide further insight about complex social control contexts at work around reproductive health decision making.

The comparative information available on education and induced abortion is inconclusive. While our study suggests a connection between higher levels of education and the level of misunderstanding about abortion, many of the large studies examining the same concepts showed a positive relationship, where those women who are more educated had higher rates of abortion. This could be a result of increased autonomy and different preferences regarding reproductive health. So, education is complex in terms of contraceptive use and unintended pregnancies.

Within our discussion, we also should acknowledge the effect of misinformation through digital and social media on perceptions of contraceptives and choices of contraceptives. The 2025 KFF Women's Health Survey reported that approximately 8–14% of younger women reported changing their contraceptive method because of social media, often due to misinformation(18). This drives home the need for relevant and substantial contraceptive counseling along with digital literacy work.

Limitations:

Some limitations of the study were the cross-sectional nature, which prevented inferring causation, as well as self-reported data, which are subject to recall bias and social desirability bias. Additionally, since this was conducted in a specific geographical area, the ability to generalize findings to different populations may be limited. Additionally, we did not collect more granular data on contraceptive method, and therefore, could not report findings for granular method-specific exposure.

Strengths:

The strengths of this study include the relatively large sample and socio-demographic diversity, which allow for more robust identification of associations. Additionally, it adds insight into seldom-studied socio-cultural factors such as husbands' opposition to using contraception and well-developed misconceptions. Overall, this study provided real-world evidence that should be explored further to inform targeted interventions.

Conclusion:

The study concludes that among women presenting for induced abortion, the prevalence of non-use of contraception was significantly more common among those having higher gravidity (59.2%) and parity (59.2%), lower levels of education (55.2%), and low socioeconomic status (43.2%). Major contributing factors included disapproval by the husband (19.2%), fear of side effects (20.4%), beliefs (20.8%), and lack of knowledge (21.2%). These findings indicate there are both social and informational barriers to the use of contraceptives. Improving reproductive health education, increasing

access to contraception, and promoting discussion with one's spouse can all contribute to a reduction in unintended pregnancies and lessened need for induced abortion.

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None

REFERENCES:

Mohapatra V, Panda N, Misra S. Family planning practices among women seeking induced abortion: an institution-based cross-sectional study from Eastern India. J Family Med Prim Care 2022;11(10):6339-6344. http://doi.org/10.4103/jfmpc.jfmpc_495_22

Frederiksen BN, Ahrens K. Understanding the extent of contraceptive non-use among women at risk of unintended pregnancy, National Survey of Family Growth 2011–2017. Contracept X 2020;2:100033. http://doi.org/10.1016/j.conx.2020.100033

Kortsmit K, Nguyen AT, Mandel MG, Clark E, Hollier LM, Rodenhizer J, et al. Abortion surveillance — United States, 2020. MMWR Surveill Summ 2022;71(10):1-27. http://doi.org/10.15585/mmwr.ss7110a1

Sebazungu T, Ruzindana K, Kitessa D, Magriples U. Factors affecting immediate use of contraception among women hospitalised for abortion in two public hospitals in Kigali, Rwanda: a cross-sectional study. East Afr Health Res J 2023;7(1):20-24. http://doi.org/10.24248/eahrj.v7i1.704

Khalid SN, Midhet F, Uzma Q, Thom EM, Baqai S, Khan MT, et al. Factors associated with induced abortions in Pakistan: a comprehensive analysis of the Pakistan maternal mortality survey 2019. Front Reprod Health 2025;7:1536582. http://doi.org/10.3389/frph.2025.1536582

Fente BM, Asnake AA, Mekuria Negussie Y, Melaku Bezie M, Alamrie Asmare Z, Asebe HA, et al. Prevalence and determinants of contraceptive discontinuation among reproductive age women: analysis of Tanzania demographic health survey. Front Glob Womens Health 2025;6:1393020. http://doi.org/10.3389/fgwh.2025.1393020

Cleland J. The complex relationship between contraception and abortion. Best Pract Res Clin Obstet Gynaecol 2020;62:90-100. http://doi.org/10.1016/j.bpobgyn.2019.04.007

Kriel Y, Milford C, Cordero J, Suleman F, Beksinska M, Steyn P, et al. Male partner influence on family planning and contraceptive use: perspectives from community members and healthcare providers in KwaZulu-Natal, South Africa. Reprod Health 2019;16(1):89. http://doi.org/10.1186/s12978-019-0749-y

Tesfa D, Tiruneh SA, Azanaw MM, Gebremariam AD, Engidaw MT, Tiruneh M, et al. Determinants of contraceptive decision making among married women in Sub-Saharan Africa from the recent Demographic and Health Survey data. BMC Women's Health 2022;22(1):52. http://doi.org/10.1186/s12905-022-01636-x

Zhang S, Lu C, Zhao Q, Xiang Y, He W, Qu Y, et al. The association between a history of induced abortion for nonmedical reasons and maternal and neonatal perinatal outcomes: a retrospective cohort study. J Matern Fetal Neonatal Med 2025;38(1):2466207. http://doi.org/10.1080/14767058.2025.2466207

Mwaisaka J, Gonsalves L, Thiongo M, Waithaka M, Sidha H, Agwanda A, et al. Exploring contraception myths and misconceptions among young men and women in Kwale County, Kenya. BMC Public Health 2020;20(1):1694. http://doi.org/10.1186/s12889-020-09795-w

Asif MF, Ali M, Abbas HG, Ishfaq T, Ali S, Abid G, et al. Access and knowledge of contraceptives and unmet need for family planning in Pakistan. BMC Women's Health 2024;24(1):651. http://doi.org/10.1186/s12905-024-03495-0

Harris ML, Feyissa TR, Bowden NA, Gemzell-Danielsson K, Loxton D. Contraceptive use and contraceptive counselling interventions for women of reproductive age with cancer: a systematic review and meta-analysis. BMC Med 2022;20(1):475. http://doi.org/10.1186/s12916-022-02690-w

World Health Organization. Family planning/contraception methods. [Internet]. 2023 [cited 2025 Oct 26]. Available from: https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception

Thompson AM, Thompson JM, Sharif H, Seemi T, Sharif S. Unveiling barriers to the modern contraceptive uptake in the urban slums of Karachi: perceptions, attitudes, and accessibility. Cureus 2024;16(3):e56164. http://doi.org/10.7759/cureus.56164

Guttmacher Institute. Investing in sexual and reproductive health in low- and middle-income countries. [Internet]. 2024 [cited 2025 Oct 26]. Available from: https://www.guttmacher.org/fact-sheet/investing-sexual-and-reproductive-health-low-and-middle-income-countries

Abebaw N, Haile B, Workie A, Mebratu W, Getie M. Quality of family planning counseling and associated factors among reproductive age women who are current contraceptive users at Dessie town health facilities, East Amhara, 2023. BMC Health Serv Res 2024;24(1):1345. http://doi.org/10.1186/s12913-024-11833-z

Schneider-Kamp A, Takhar J. Interrogating the pill: Rising distrust and the reshaping of health risk perceptions in the social media age. Soc Sci Med 2023;331:116081. http://doi.org/10.1016/j.socscimed.2023.116081