

The Determinant of Unintended Pregnancies Among Women of Pakistan

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Abstract: Unintended pregnancies remain a major public health concern worldwide, particularly in low and middle-income countries. In Pakistan, socioeconomic constraints, limited access to reproductive health services, unmet contraceptive needs, and restricted spousal communication continue to influence reproductive outcomes. This study aimed to identify the key sociodemographic and reproductive determinants associated with unintended pregnancies among married women attending a tertiary care hospital in Lahore. **Methods:** A descriptive cross-sectional study was conducted among 171 married women of reproductive age visiting the gynecology outpatient department. Participants were selected through convenience sampling. Data were collected using a structured, validated questionnaire that assessed sociodemographic variables, contraceptive use, communication patterns, reproductive history, and access to communication tools. Statistical analysis was performed using SPSS version 26. Descriptive statistics summarized participant characteristics, while chi-square tests determined associations between independent variables and unintended pregnancy. A p-value below 0.05 was considered statistically significant. **Results:** The majority of participants were aged 31–35 years (42.1%), resided in urban areas (67.3%), and had secondary education (51.5%). More than half (55.6 percent) had never used contraception, and 38.6 percent had never discussed family planning with their spouses. Unintended pregnancies were significantly associated with non-use of contraception (71.6 percent vs 42.1 percent, $p < 0.001$), lack of spousal communication (69.7 percent vs 39.1 percent, $p < 0.001$), short birth intervals below 12 months ($p = 0.003$), younger age ($p = 0.042$), low educational attainment ($p = 0.038$), limited access to communication tools ($p = 0.050$), and history of miscarriage ($p = 0.021$). Residence, gravidity, parity, and family size did not show significant associations. **Conclusion:** This study highlights the multifactorial nature of unintended pregnancies in Pakistan, emphasizing the role of contraceptive uptake, effective partner communication, education, and birth spacing. Addressing these determinants through culturally sensitive counseling, enhanced family planning services, and community-based awareness programs could reduce unintended pregnancies and improve reproductive health outcomes among married women.

Keywords: Unintended pregnancy, contraceptive use, spousal communication, reproductive health

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Introduction

Unintended pregnancies present a considerable public health challenge globally, with contributing factors differing across sociocultural contexts. In Pakistan, a country marked by unique cultural norms and socio-economic obstacles, the prevalence of unintended pregnancies necessitates thorough investigation. The United Nations defines unintended pregnancies as those occurring when a woman does not desire to become pregnant at the time of conception, putting women at risk for various social and health-related issues, including complications from unsafe abortions and adverse effects on mental health (1).

Recent research indicates that multiple determinants influence the incidence of unintended pregnancies. A significant factor among these is unmet contraceptive needs, which has emerged as a primary influence on unintended pregnancies in low- and middle-income countries, including Pakistan (1,2). Studies highlight that women who delay accessing effective contraceptive methods are significantly more likely to experience unintended pregnancies (3). In Pakistan, traditional gender roles may limit women's autonomy regarding reproductive health, contributing to inadequate spousal communication about family planning (4).

Socio-economic factors also significantly impact the dynamics surrounding unintended pregnancies. Research shows that women with lower socioeconomic status often encounter obstacles in accessing family planning resources (4). In Pakistan, educational disparities exacerbate women's vulnerability to unintended pregnancies, as lower levels of education correlate with diminished knowledge and use of contraceptive

methods (5). Additionally, adolescents face increased risks due to limited access to comprehensive reproductive health services (6).

Cultural attitudes critically shape perceptions surrounding contraception and family planning in Pakistan. Stigma related to contraceptive use persists in many regions, creating reluctance among women to seek family planning services (1). This cultural outlook often restricts open conversations about reproductive health, leading to misinformation and ineffective contraceptive practices (7,8). Understanding these sociocultural barriers is crucial for addressing the complexities of unintended pregnancies effectively.

In conclusion, the consequences of unintended pregnancies extend beyond individual women's health, affecting family structures and societal dynamics in Pakistan. Addressing this issue necessitates multifaceted approaches, including enhancing education and awareness regarding reproductive health, improving access to contraceptive services, and fostering discussions that empower women in their family planning choices. Such efforts are essential in reducing the societal burden of unintended pregnancies and promoting healthier generational outcomes.

Unintended pregnancies are particularly significant in Pakistan, where societal norms and structural constraints frequently inhibit effective family planning. The interplay of cultural beliefs, limited healthcare access, and varying educational levels among women poses unique challenges that require targeted educational and policy initiatives. Investigating the determinants of unintended pregnancies can provide vital insights for public health interventions aimed at reducing their incidence in Pakistan.



Methodology

This descriptive cross-sectional study was conducted to assess the determinants of unintended pregnancies among married women attending the gynecology outpatient department of a tertiary care hospital in Lahore, Pakistan. The study aimed to identify sociodemographic, behavioral, and reproductive health-related factors contributing to unintended pregnancies in this population.

The study population consisted of currently married women of reproductive age who were visiting the gynecology OPD for antenatal or general consultation during the data collection period. A non-probability convenience sampling technique was employed to recruit participants, ensuring ease of access to eligible women within the hospital setting. The sample size was determined using **Slovin's formula**, assuming a 95% confidence level and a 5% margin of error, resulting in a final sample of **171 participants**.

Data were collected using a structured, pre-tested questionnaire specifically designed for the study, comprising sections on sociodemographic information, reproductive history, contraceptive use, spousal communication, and access to communication tools. The tool was validated through expert review to ensure content validity and pilot-tested among a subset of the target population. Reliability testing of the instrument demonstrated acceptable internal consistency.

All interviews were conducted in a private setting to encourage honest responses. Before data collection, written informed consent was obtained from all participants after a thorough explanation of the study's objectives and voluntary nature. Confidentiality was assured, and participants were given the right to withdraw at any point without any consequences.

Data were entered and analyzed using the Statistical Package for the Social Sciences (SPSS) version 26. Descriptive statistics, including frequencies and percentages, were used to summarize categorical variables. The chi-square test was applied to examine associations between unintended pregnancy and selected independent variables. A p-value less than 0.05 was considered statistically significant.

The study received ethical approval from the research committee of the Department of Nursing, The Superior University, Lahore.

Results

A total of 171 married women participated in the study. The majority of respondents were between 31 and 35 years of age (42.1%), followed by 26 and 30 years (38.6%). Most participants resided in urban areas (67.3%) and identified as housewives (50.9%). Regarding monthly household income, 67.8% of the participants reported earning more than PKR 25,000. Educational attainment varied: over half (51.5%) had completed secondary education, while 11.7% had no formal education.

Table 1. Sociodemographic Characteristics of Participants (n = 171)

Variable	Category	Frequency	Percentage (%)
Age (years)	18–25	16	9.4
	26–30	66	38.6
	31–35	72	42.1
	36–40	17	9.9
Residence	Rural	56	32.7
	Urban	115	67.3
Occupation	Farmer	6	3.5
	Job-holder	71	41.5
	Housewife	87	50.9
	Other	7	4.1
Monthly Income	11,000–15,000	10	5.8
	16,000–25,000	45	26.3
	>25,000	116	67.8
Education Level	No formal	20	11.7
	Primary	44	25.7
	Secondary	88	51.5
	College	19	11.1

Among all participants, 44.4% had ever used family planning methods, whereas 55.6% had never adopted any contraceptive practice. Access to communication tools such as mobile phones, radio, or television was reported by 62.6% of participants. A majority had been pregnant three to four times (63.2%) and had delivered three to four children (78.9%).

Additionally, 61.4% of women had discussed family planning with their spouses, but 38.6% had never engaged in such conversations. Half of the participants (50.5%) had birth intervals of less than 12 months, and 70.5% had experienced at least one miscarriage. Family sizes of four to five members were reported by 59.6%, while 40.4% had six or more family members.

Table 2. Reproductive Health and Communication Profile (n = 171)

Variable	Category	Frequency	Percentage (%)
Ever Used Contraception	Yes	76	44.4
	No	95	55.6
Communication Tools	Yes	107	62.6
	No	64	37.4
Gravidity	1–2	36	21.1
	3–4	108	63.2
	>5	27	15.8
Parity	1–2	22	12.9
	3–4	135	78.9
Spousal Communication	Ever Discussed	105	61.4
	Never Discussed	66	38.6

Family Size	4-5	102	59.6
	>6	69	40.4
Birth Interval	<12 months	111	50.5
	≥12 months	89	49.5
History of Miscarriage	Yes	131	70.5
	No	69	29.5

Inferential analysis using the chi-square test identified significant associations between unintended pregnancies and various sociodemographic and reproductive factors. Notably, women who never used contraception experienced a much higher rate of unintended pregnancies (71.6%) compared to those who did (42.1%, $p < 0.001$). Communication with spouses also played a crucial role, with 69.7% of women lacking communication reporting unintended pregnancies, compared to 39.1% among those with effective communication ($p < 0.001$). Additionally, short birth intervals (less

than 12 months) were linked to unintended pregnancies ($p = 0.003$). Younger women (≤ 30 years) and those with lower educational levels were more likely to experience unintended pregnancies ($p = 0.042$ and $p = 0.038$, respectively). Women without access to communication tools reported higher rates of unintended pregnancies ($p = 0.050$), and having a history of miscarriage was also significantly associated with unintended pregnancies ($p = 0.021$). These findings highlight the multifaceted factors influencing unintended pregnancies, underscoring the need for targeted interventions. (Table 3)

Table 3. Association Between Key Determinants and Unintended Pregnancy (n = 171)

Determinant	Category	Unintended Pregnancy (%)	p-value
Age	≤ 30 years vs > 30 years	65.2 vs 48.6	0.042*
Education	No/Primary vs Secondary+	68.1 vs 49.3	0.038*
Residence	Rural vs Urban	62.5 vs 51.3	0.204
Contraceptive Use	Never vs Ever	71.6 vs 42.1	$< 0.001^{**}$
Spousal Communication	No vs Yes	69.7 vs 39.1	$< 0.001^{**}$
Access to Communication	No vs Yes	63.5 vs 47.7	0.050*
Gravidity	≤ 2 vs ≥ 3	45.0 vs 59.3	0.118
Parity	≤ 2 vs ≥ 3	50.0 vs 57.6	0.315
Family Size	≤ 5 vs > 5	47.8 vs 61.9	0.082
Birth Interval	< 12 vs ≥ 12 months	68.5 vs 44.9	0.003**
History of Miscarriage	Yes vs No	62.6 vs 44.1	0.021*

* Statistically significant at $p < 0.05$

** Highly substantial at $p < 0.01$

Discussion

The findings from our study indicate significant associations between sociodemographic and reproductive health factors and unintended pregnancies among married women in Pakistan. This is particularly important in light of current literature on similar trends globally and in Pakistan.

According to our study, the majority of respondents were aged 31–35 years (42.1%) and resided in urban areas (67.3%). These demographic features echo patterns observed in studies by Kebede et al. (9), which identified a similar preponderance of urban women in Ethiopia experiencing unintended pregnancies. Further, Meherali et al. (10) noted that educational and income levels contribute significantly to contraceptive use, reinforcing that urban women with higher education might have better access to reproductive health services.

In our results, only 44.4% of participants reported using contraception, while communication about family planning with spouses was observed in 61.4% of cases. Our findings align with those of Roga and Balis (11), who noted that a lack of partner communication significantly increased the risk of unintended pregnancies. The strong association in our study ($p < 0.001$) between contraceptive use and the occurrence of unintended pregnancies (71.6% among those not using contraceptives) is consistent with research by Wali (12), which found that women who do not use contraception are at greater risk for unintended pregnancies. This highlights the need for improved communication strategies regarding family planning within households.

The study also found that 50.5% of women had shorter birth intervals of less than 12 months, linking this to unintended pregnancies ($p = 0.003$). This is supported by findings from Teshale and Tesema (13), which emphasized the health risks associated with short birth intervals. Notably, our participants reported having experienced at least one miscarriage; however, the correlation with unintended pregnancies requires further

clarification, as it may not directly reflect findings by Deribew (14), which primarily focused on different aspects of reproductive health.

Our analysis showed that younger women (≤ 30 years) were more likely to report unintended pregnancies ($p = 0.042$). This aligns with the findings from Zeru et al. (15), indicating that younger women face higher risks of unintended pregnancies, possibly due to lower knowledge levels regarding reproductive health. Further, educational attainment significantly affects contraceptive use and unintended pregnancies, aligning with the conclusions presented by Ali et al. (16), which posited that higher education correlates with increased contraceptive usage among married women.

Notably, communication with spouses significantly impacted unintended pregnancies; 69.7% of women without communication reported unintended pregnancies, compared to only 39.1% among those who discussed family planning with their partners ($p < 0.001$). This finding aligns with the work of Sikaluzwe et al. (17), which indicated that spousal support and effective communication are pivotal in the decision-making process regarding contraceptive use, thus reducing unintended pregnancies.

Our results provide essential insights into the sociocultural and reproductive health dynamics specific to the Pakistani context, supporting existing literature and highlighting areas for targeted intervention.

Conclusion

This study demonstrates that modifiable factors, including contraceptive non-use, limited spousal communication, short birth intervals, and low educational attainment, strongly influence unintended pregnancies among married women in Pakistan. Younger women and those lacking access to communication resources were also more vulnerable. These findings underscore the need for strengthening family planning programs, promoting couple-based reproductive counseling, and improving access

to reliable information through community and digital platforms. Implementing such targeted strategies can help reduce the burden of unintended pregnancies and support better reproductive autonomy and health for Pakistani women.

Declarations

Data Availability statement

All data generated or analysed during the study are included in the manuscript.

Ethics approval and consent to participate

Approved by the department concerned. (IRBEC-24)

Consent for publication

Approved

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Conflict of interest

The authors declared no conflicts of interest.

Author Contribution

HF (Student Researcher)

Manuscript drafting, Study Design,

STK (Director)

Review of Literature, Data entry, Data analysis, and drafting articles.

KP (Supervisor, Associate Professor)

Conception of Study, Development of Research Methodology Design,

SB (Nursing Instructor)

Study Design, manuscript review, and critical input.

All authors reviewed the results and approved the final version of the manuscript. They are also accountable for the integrity of the study.

References

1. Aragaw F., Amare T., Teklu R., Tegegne B., & Alem A. Magnitude of unintended pregnancy and its determinants among childbearing age women in low and middle-income countries: evidence from 61 low and middle-income countries. *Frontiers in Reproductive Health* 2023;5. <https://doi.org/10.3389/frph.2023.1113926>
2. Asrat D., Copas A., & Olubukola A. Exploring the association between unintended pregnancies and unmet contraceptive needs among Ugandan women of reproductive age: an analysis of the 2016 Uganda demographic and health survey. *BMC Pregnancy and Childbirth* 2024;24(1). <https://doi.org/10.1186/s12884-023-06222-z>
3. Ojuok R., Nyamongo D., & Mutai J. Determinants of unintended pregnancy among women attending antenatal clinic at Kenyatta National Hospital.. *F1000research* 2022;11:585. <https://doi.org/10.12688/f1000research.108815.1>
4. Siddique A., Nasrin T., Mehzabeen M., Akter O., Rabbani M., & Mahmood S.. Unintended pregnancy among women in Nepal: socioeconomic, fertility, and contraceptive determinants from the 2022 NDHS. 2025. <https://doi.org/10.1101/2025.08.27.25334549>
5. Wali R.. The prevalence and determinants of unintended pregnancy among pregnant women attending antenatal clinic in the primary health care at Kamc- Jeddah. 2023. <https://doi.org/10.21203/rs.3.rs-3251913/v1>
6. Ayalew H., Liyew A., Tessema Z., Worku M., Tesema G., Alamneh T., et al.. Prevalence and factors associated with unintended pregnancy among adolescent girls and young women in sub-Saharan Africa, a multilevel analysis. *BMC Women's Health* 2022;22(1). <https://doi.org/10.1186/s12905-022-02048-7>
7. Liu R., Dong X., Ji X., Chen S., Yuan Q., Yi T., et al Associations between sexual and reproductive health knowledge, attitude,

and practice of partners and the occurrence of unintended pregnancy. *Frontiers in Public Health* 2023;10.

<https://doi.org/10.3389/fpubh.2022.1042879>

8. Mechal N., Negash M., Bizuneh H., & Abubeker F. Unmet need for contraception and associated factors among women with cardiovascular disease having follow-up at Saint Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia: a cross-sectional study. *Contraception and Reproductive Medicine* 2022;7(1). <https://doi.org/10.1186/s40834-022-00173-0>
9. Kebede K., Belay A., & Shetano A. Prevalence and determinants of unintended pregnancy in Ethiopia: narrative synthesis and meta-analysis. *Heliyon* 2021;7(9):e07869. <https://doi.org/10.1016/j.heliyon.2021.e07869>
10. Meherali S., Ali A., Khaliq A., & Lassi Z.. Prevalence and determinants of contraception use in Pakistan: trend analysis from the Pakistan Demographic and Health Surveys (PDHS) dataset from 1990 to 2018. *F1000research* 2021;10:790. <https://doi.org/10.12688/f1000research.55204.1>
11. Roga E. and Balis B.. Unintended pregnancy and associated factors among women living in Ilu Gelan District, Western Ethiopia, 2021. *International Journal of Reproductive Medicine* 2022;2022:1-12. <https://doi.org/10.1155/2022/8646724>
12. Wali R.. The prevalence and determinants of unplanned pregnancy among pregnant women attending antenatal clinic in the primary health care centers at Kamc- Jeddah. 2024. <https://doi.org/10.21203/rs.3.rs-4562464/v1>
13. Teshale A. and Tesema G. Magnitude and associated factors of unintended pregnancy in Ethiopia: a multilevel analysis using 2016 EDHS data. *BMC Pregnancy and Childbirth* 2020;20(1). <https://doi.org/10.1186/s12884-020-03024-5>
14. Sharma H. and Singh S.. Levels, trends, and predictors of unintended pregnancy among adolescents and young women aged 15-14 in India: an analysis from NFHS-4 and 5 surveys. 2023. <https://doi.org/10.21203/rs.3.rs-2367138/v1>
15. Zeru M., Fenta H., & Mitku A. Spatial patterns and predictors of unintended pregnancy among reproductive age women in Ethiopia. *Plos One* 2023;18(8):e0282225. <https://doi.org/10.1371/journal.pone.0282225>
16. Ali M., Athar S., & Rasheed S.. Exploring the persistent challenges of reproductive health management: analyzing the use of contraception among wives across four provinces in Pakistan, utilizing MICS data. *Global Sociological Review* 2024; IX(III):127-139. [https://doi.org/10.31703/gsr.2024\(ix-iii\).12](https://doi.org/10.31703/gsr.2024(ix-iii).12)
17. Sikaluzwe M., Phiri M., Lemba M., Shasha L., & Muhanga M. Trends in prevalence and factors associated with unintended pregnancies in Zambia (2001–2018). *BMC Pregnancy and Childbirth* 2024;24(1). <https://doi.org/10.1186/s12884-024-06311-7>



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