Prevalence and triggering factors of unintended pregnancies among women in India: Evidence from Indian Demographic and Health Survey 2015–2016

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ABSTRACT

Objectives: The primary focus of this study was to estimate the prevalence and assess the associated risk factors that impact unintended pregnancies among women who were married in India.

Study design: This study utilized a cross sectional study design.

Methods: It was a cross-sectional study on 32224 pregnant women that was extracted from the most recent Demographic and Health Study organized from 2015 to 2016 (round 7) in India. Facts and statistics were examined by utilizing different data analysis techniques, i.e., univariate, bivariate and multivariate analysis.

Results: Nearly 11.9% of cases were unplanned pregnancies, out of which 7% were early pregnancies. The mistimed pregnancy for women aged 15–19 years was 7.896 (6.246, 9.981) times more likely than the women of age 30. The women living in urban areas were having 0.877 (0.778, 0.988) times fewer chances to have an early parturient as compared to those living in rural areas. Women who got married before 18 years of age were 0.583 (0.524, 0.650) times less likely to have mistimed pregnancy than the women who got married at the age of 18 and over. Women with no children were 0.217 (0.176, 0.268) times less likely to have early pregnancy than women with more than three children.

Conclusion: Factors that enhance the probability of unfavorable pregnancies are the age at first marriage, number of dead children, wealth status, fertility preference, and family planning knowledge. This survey suggests strengthening the strategies of family planning so that the ratio of unplanned pregnancies decreases.

1. What we already know

- Approximately 85 million women face unintended pregnancies every year worldwide. Consequently, unsafe abortions and maternal deaths are very high.
- Research from India suggested that Lower utilization of maternal health facilities and poorer outcomes of infant health are influenced by unintended pregnancy
- Enriched research findings showed that the reason and association of unintended pregnancy in India is scarce.

2. What this article adds

- In this study, significant factors were found that were affecting unintended pregnancies in India by using the most recent Indian Demographic and Health Survey 2015–2016 data.
- Age of respondent, type of residence, age at first marriage, wealth status, children ever born, and fertility preference were the strongest predictors for unintended pregnancies in India.
- This study illustrates the importance of family planning services and recommends different interventions to reduce the level of unintended pregnancies to achieve the Sustainable Development Goal of reducing maternal deaths.

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3. Introduction

To understand fertility, demographers are interested to know the concept of unintended pregnancy, whereas the public health practitioners are intended to prevent unwanted childbearing, that is relying on the concept of unintended pregnancy.¹ Most married women having low income have the most significant difficulty taking responsibility for an unintended child.² There are several adverse effects of unintended pregnancy on mental health, antenatal care, postnatal care, curative care, breastfeeding, child immunization, and infant mortality.^{3,4} Strong evidence shows that women with an unintended pregnancy have less probability of utilizing these health care services.^{5,6} Unintended pregnancy complicates abortion-related morbidity and mortality, especially in some countries where abortion is not allowed legally.⁷ Every day around one million conceptions occur because of 100 million acts of sexual intercourse. About 50% of which are unplanned, and about 25% of pregnancies are unwanted.⁸ This increase in the frequency of unplanned pregnancies can be seen as a marker of women's autonomy for having children's decision-making process.⁹ Though it is a common worldwide phenomenon, minimal published literature focuses on unintended pregnancy determinants in developing countries like India.¹⁰ Several studies showed that about 50% of all pregnancies in the USA, 23% in Iran, 40% in Nepal, 41% in Koshu, Japan are unintended.^{11–13} Unintended pregnancies are widespread and can be due to various causes. Contraception failure due to inconsistent or incomplete use of contraceptive pills, failure of family planning to prevent pregnancies, less commonly, and rape are the main reasons behind unintended pregnancy.^{14,15} In the United States, approximately half of the pregnancies are unintended due to contraceptive failure. Among those unintended pregnancies, almost half of the pregnancies end in induced abortions.¹⁶

Therefore, unplanned pregnancy is a problem that cannot be neglected. To find out the actual reasons behind unintended pregnancy, the prevalence and causal factors of unplanned pregnancy in India were focused.

4. Methods

4.1. Data sources

In this study, the most recent Demographic and Health Survey was done from 2015 to 2016 (round 7) in India. The survey was performed in all seven union territories and twenty-nine states of India for the very first time in the national family health survey-4. In India, the assessment of many measures has been permitted at the district level for all six hundred and forty districts according to the 2011 survey.¹⁷ A probability-based cluster sampling technique was used to select survey respondents. The complete database was accessible as per demand from <https://dhsprogram.com/>, and such database did not comprise any noticeable information on the review members. Demographic and health survey was familiar for its uniformity as well as for nationwide illustrating selection of candidates, objective calculation of anthropometry, gathering different types of surveying and affected assessment markers for fitness and nourishment, and rapid reaction.¹⁷

32428 out of 699686 reproductive age interviewed (4.6%) women were at the state of parturient at the time of the study. Data of 204 females were removed due to lost information. Ultimately, the sample size became 32224.

4.2. Variables

This dependent variable analysis was parturient status, determined by respondents' intuit wish for present pregnancy. Women were questioned: "At what time you were pregnant, did you need to get pregnant at that point, did you need to hold up till afterward, or did you not need to have more children at all?" The three acceptable alternatives were

needed at that point (wanted), where the pregnancy was required to occur afterward (misplanned) and did not need at all (unfavorable).

The independent variables were chosen in the examination on the basis of their importance in former pregnancy intention status surveys. Some variables were recategorized from their actual groups in the database to make analysis easier and more purposeful. The age of the respondents was categorized into four categories (i.e., age group between 15 and 19, 20–24, 25–29, 30, and above). There were two categories in the residence of respondents like urban residents and rural residents. Age at marriage was divided into two categories named married before 18 years and married at 18 years or above age. The husband's residence was divided into two categories: whether their husbands lived with them or stayed elsewhere. The wealth status of the respondents was categorized as poor, medium, and rich. The education status of the respondents was classified as no education, primary, secondary and higher level of education. The number of children ever born was grouped as no children, 1 to 2 children, three and more than three children. The fertility preference of the respondents was categorized as wanted more children, not sure about children, and wanted no more children. The numbers of dead children were classified as no dead children, one dead child, two, and more than two dead children. The variable named heard related to family planning strategies (FP) on the radiotelegraph, TV, or in the newspaper was categorized as yes and no.

4.3. Multinomial logistic regression

This study uses Pearson's χ^2 to evaluate the link between the outcome variable and the independent variables. To determine the affecting variables by using Determinants of Unintended Pregnancies, we use multinomial logistic regression.¹⁸ Logistic regression produces the coefficients (and its principle errors and necessary levels) of a formula to estimate the logit transformation of probability (p) of the existence of the trait of interest:

$$\text{logit}(p) = b_0 + b_1X_1 + b_2X_2 + \dots + b_kX_k$$

where p is the probability of the existence of the trait of interest. The logit transformation is defined as the logged odds:

$$\text{Odds} = \frac{p}{1-p} = \frac{\text{Probability of presence of characteristic}}{\text{Probability of absence of characteristic}}$$

And

$$\text{logit}(p) = \log\left(\frac{p}{1-p}\right)$$

Instead of selecting variables that reduce the grand total of squared errors (as in ordinary regression), the approximation in logistic regression determines variables that increase the chances of noticing the values of the sample.

5. Results

Table 1, briefly illustrates the facts and figures of the population on which the analysis was performed. Most of the study population (42.4%) was in the age group 20–24. The minimum population of 11.3% was in the age group 15–19. The large surveyed population was in the countryside (75.9%), while only 24.1% of the citizens were living in the city. Most of the women (69.4%) reported that they got married after the age of 18 years. 89.1% of the women said that they are living with their husbands. Nearly half of the study population (47.2%) was categorized as inferior. Women with high school (9–12) and vocational education were 61.7%, whereas the women with only class 1–5 education were only 13.2%. Nearly half of the study population (47.0%) had 1–2 children. On the other hand, only 14.1% of the study population had more than three children. 51.8% of the women wanted more children, whereas 10.1% were undecided on fertility preference. Most of the

Table 1
Social and economical traits of present pregnant females in India.

Current pregnancy intention	Frequency	Percent
Wanted	28386	88.1
Mistimed	2256	7.0
Not wanted	1582	4.9
Total	32224	100.0
Age of respondent (years)		
15–19	3632	11.3
20–24	13655	42.4
25–29	9770	30.3
30+	5167	16.0
Total	32224	100.0
Type of residence		
Urban	7753	24.1
Rural	24471	75.9
Total	32224	100.0
Age at marriage (years)		
<18	9876	30.6
≥18	22348	69.4
Total	32224	100.0
Husband residence		
Living with her	28727	89.1
Staying elsewhere	3497	10.9
Total	32224	100.0
Wealth status		
Poor	15209	47.2
Medium	6545	20.3
Rich	10470	32.5
Total	32224	100.0
Education		
No education	8100	25.1
Primary	4253	13.2
Secondary+	19871	61.7
Total	32224	100.0
Offsprings ever born		
Zero	12533	38.9
One –two	15153	47.0
Three +	4538	14.1
Total	32224	100.0
Fertility proclivity		
Desired more	16704	51.8
Unsettled	3256	10.1
Desired no more	12264	38.1
Total	32224	100.0
Mortality of children		
No death	29216	90.7
One	2447	7.6
Two +	561	1.7
Total	32224	100.0
Heard FP^a on radio		
No	27106	84.1
Yes	5118	15.9
Total	32224	100.0
Heard FP^a on Television		
No	15086	46.8
Yes	17138	53.2
Total	32224	100.0
Heard FP^a in newspaper		
No	21984	68.2
Yes	10240	31.8
Total	32224	100.0

^a FP = Family Planning.

women did not listen to FP on radiotelegraph or newspaper. Almost half of the women (53.2%) heard about FP on television. (88.1%) women from the examined population illustrate that their pregnancy was desired, whereas only 4.9% of the women demonstrate that their pregnancy was undesired.

5.1. Bivariate analysis

From Table 2, it is demonstrated that countryside women have more chances to have an undesired pregnancy (5.2%) as compared to that of the women of the city (4.1%). The same sequence was noticed with ill-

Table 2
Pre-planning of pregnancy by choosing attributes of background.

Background features	Pregnancy intention			Chi-square value	P-Value
	Desired (%)	Ill-timed (%)	Undesired (%)		
Age of respondent				1042.981	0.000
15–19	3288 (90.5)	295 (8.1)	49 (1.3)		
20–24	12167 (89.1)	1174 (8.6)	314 (2.3)		
25–29	8587 (87.9)	599 (6.1)	584 (6.0)		
30+	4344 (84.1)	188 (3.6)	635 (12.3)		
Type of residence				41.669	0.000
Urban	6990 (90.2)	447 (5.8)	316 (4.1)		
Rural	21396 (87.4)	1809 (7.4)	1266 (5.2)		
Age at marriage				213.720	0.000
<18	8444 (85.5)	686 (6.9)	746 (7.6)		
≥18	19942 (89.2)	1570 (7.0)	836 (3.7)		
Husband residence				31.015	0.000
Living with her	25329 (88.2)	1946 (6.8)	1452 (5.1)		
Staying elsewhere	3057 (87.4)	310 (8.9)	130 (3.7)		
Wealth status				292.933	0.000
Poor	13018 (85.6)	1132 (7.4)	1059 (7.0)		
Medium	5829 (89.1)	470 (7.2)	246 (3.8)		
Rich	9539 (91.1)	654 (6.2)	277 (2.6)		
Education				560.948	0.000
No education	6820 (84.2)	513 (6.3)	767 (9.5)		
Primary	3670 (86.3)	330 (7.8)	253 (5.9)		
Secondary+	17896 (90.1)	1413 (7.1)	562 (2.8)		
Children ever born				2972.095	0.000
0	11892 (94.9)	565 (4.5)	76 (0.6)		
1–2	13153 (86.8)	1397 (9.2)	603 (4.0)		
3+	3341 (73.6)	294 (6.5)	903 (19.9)		
Fertility preference				1936.140	0.000
Wants more	15676 (93.8)	873 (5.2)	155 (0.9)		
Undecided	2987 (91.7)	207 (6.4)	62 (1.9)		
Wants no more	9723 (79.3)	1176 (9.6)	1365 (11.1)		
Children dead				174.671	0.000
No dead	25859 (88.5)	2067 (7.1)	1290 (4.4)		
1	2061 (84.2)	162 (6.6)	224 (9.2)		
2+	466 (83.1)	27 (4.8)	68 (12.1)		
Heard FP^a on radio				15.702	0.000
No	23803 (87.8)	1921 (7.1)	1382 (5.1)		
Yes	4583 (89.5)	335 (6.5)	200 (3.9)		
Heard FP^a on TV				177.637	0.000
No	12963 (85.9)	1139 (7.6)	984 (6.5)		
Yes	15423 (90.0)	1117 (6.5)	598 (3.5)		
Heard FP^a in newspaper				196.540	0.000
No			1304 (5.9)		

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Table 2 (continued)

Background features	Pregnancy intention			Chi-square value	P-Value
	Desired (%)	Ill-timed (%)	Undesired (%)		
Yes	19020 (86.5)	1660 (7.6)	278 (2.7)		
	9366 (91.5)	596 (5.8)			

^a FP = Family Planning.

timed pregnancy. Countryside women were more anticipated to have an ill-time pregnancy (7.4%) as compared to that of the women of the city (5.8%). Moreover, women that have got married at a young age (before 18 years) had a predominantly higher percentage of undesired pregnancy (7.6%) as compared to the women that have got married at the age of 18 years or later (3.7%).

Women who lived with their husbands were with a high unwanted pregnancy (5.1%) than women who lived elsewhere. By concerning the socio-economic status, and consequences it is illustrated that females residing in comparatively penniless families mainly were expected to announce their pregnancy as undesirable (7.0%), whereas those living in the privileged families were least anticipated to do so (2.6%). Similarly, females living in relatively poor families mainly were expected to announce their pregnancies as ill-time (7.4%), while those in the privileged families were least anticipated to do so (6.2%).

Women with no schooling had the highest probability of undesired pregnancies (9.5%), while the women with primary (class 1–5) school education had (5.9%) of undesired pregnancies. Ill-time pregnancies have the highest probability (7.8%) among women with the education of class 1–5, and women (6.3%) possibility of unintended pregnancies were in illiterate women.

Women that were having more than three children had the highest rate of undesired pregnancies (19.9%) succeeding by females with 1–2 children (4.0%) and the lowest among women with no children (0.6%). Mistimed pregnancies were highest among females with one to two children (9.4%), followed by women with more than three children (6.4%), and lowest among women with no children (4.4%).

Both undesired and ill-time pregnancies have higher rates among females who were illiterate about FP as compared to those who have knowledge about FP prior to their most current pregnancy.

After analyzing the above model in Table 3, it was found that the probability of mistimed pregnancy for women of age between 15 and 19 years was 7.896 (6.246, 9.981) times more than the women whose age was 30 years and older. The probability of mistimed pregnancy for women with age between 20 and 24 years. The age between 25 and 29 years was respectively having 4.134 (3.460, 4.940) and 2.008 (1.687, 2.390) times more probability of pregnancies than those of 30 years and older.

The females living in urban areas were 0.877 (0.778, 0.988) times less anticipated to have ill-time pregnancy than those living in rural areas.

The probability of mistimed pregnancy for the women who get married at a young age (before 18 years old) was 0.583 (0.524, 0.650) times less than the women who got married at the age of 18 and over. The results of this study showed that the probability of mistimed pregnancy of the women living with their husbands was 0.762 (0.670, 0.867) times less than women living elsewhere. Poor women had 0.980 (0.862, 1.113) times less probability of ill-time pregnancy than rich women. Similarly, women with medium wealth had 0.956 (0.837, 1.091) times less likelihood of mistimed pregnancy than rich women.

The probability of mistimed pregnancy for the women with no education was 0.773 (0.684, 0.873) times less than women with above secondary level of education. The likelihood of mistimed pregnancy for the women with no children was 0.217 (0.176, 0.268) times less than

Table 3

Illustrating various socio-economic and demographic factors influencing the Unintended Pregnancies in India by using Multinomial Logistic Regression.

Current pregnancy intention	β	P-Value	OR	95% Confidence Interval for OR	
				Lower Bounds	Upper Bounds
Mistimed	Intercept	–2.642	0.000		
	Age of respondent				
	15–19	2.066	0.000	7.896	6.246
	20–24	1.419	0.000	4.134	3.460
	25–29	0.697	0.000	2.008	1.687
	30+	0 ^b	.	.	.
	(Reference)				
	Type of residence				
	Urban	–0.132	0.031	0.877	0.778
	Rural	0 ^b	.	.	.
	(Reference)				
	Age at marriage				
	<18	–0.539	0.000	0.583	0.524
	≥18	0 ^b	.	.	.
	Husband residence				
	Living with her	–0.272	0.000	0.762	0.670
	Staying elsewhere	0 ^b	.	.	.
	Wealth status				
	Poor	–0.021	0.751	0.980	0.862
	Medium	–0.045	0.502	0.956	0.837
	Rich	0 ^b	.	.	.
	Education				
	No education	–0.258	0.000	0.773	0.684
	Primary	–0.065	0.340	0.937	0.820
	Secondary+	0 ^b	.	.	.
	Children ever born				
	0	–1.527	0.000	0.217	0.176
	1–2	–0.499	0.000	0.607	0.517
	3+	0 ^b	.	.	.
	Fertility preference				
	Wants more	–0.607	0.000	0.545	0.490
	Undecided	–0.448	0.000	0.639	0.546
	Wants no more	0 ^b	.	.	.
	Children dead				
	No dead	0.482	0.021	1.619	1.075
	1	0.182	0.405	1.200	0.781
	2+	0 ^b	.	.	.
	Listen FP* on radio				
	No	–0.061	0.350	0.940	0.827
	Yes	0 ^b	.	.	.
	Listen FP* on TV				
	No	0.091	0.090	1.095	0.986
	Yes	0 ^b	.	.	.
	Listen FP* in newspaper				
	No	0.232	0.000	1.262	1.118
	Yes	0 ^b	.	.	.
Unwanted	Intercept	–2.342	0.000		
	Age of respondent				
	15–19	–0.081	0.654	0.922	0.646
	20–24	–0.462	0.000	0.630	0.530
	25–29	–0.243	0.000	0.784	0.687
	30+	0 ^b	.	.	.
	(Reference)				
	Type of residence				
	Urban	0.239	0.002	1.270	1.089
	Rural	0 ^b	.	.	.
	(Reference)				
	Age at marriage				
	<18	0.167	0.007	1.182	1.048
	≥18	0 ^b	.	.	.
	Husband residence				
	Living with her	0.291	0.004	1.338	1.099
	Staying elsewhere	0 ^b	.	.	.
	Wealth status				
	Poor	0.519	0.000	1.680	1.397
				2.020	

(continued on next page)

Table 3 (continued)

Current pregnancy intention	β	P-Value	OR	95% Confidence Interval for OR	
				Lower Bounds	Upper Bounds
Medium	0.237	0.018	1.267	1.042	1.541
Rich	0 ^b	.	.	.	.
Education					
No education	0.138	0.065	1.148	0.991	1.330
Primary	0.054	0.539	1.056	0.887	1.257
Secondary+	0 ^b	.	.	.	.
Children ever born					
0	-2.339	0.000	0.096	0.071	0.131
1–2	-1.416	0.000	0.243	0.210	0.280
3+	0 ^b	.	.	.	.
Fertility preference					
Wants more	-1.883	0.000	0.152	0.127	0.183
Undecided	-1.634	0.000	0.195	0.150	0.254
Wants no more	0 ^b	.	.	.	.
Children dead					
No dead	0.711	0.000	2.035	1.539	2.691
1	0.308	0.046	1.361	1.005	1.843
2+	0 ^b	.	.	.	.
Listen FP on radio					
No	-0.023	0.788	0.977	0.824	1.158
Yes	0 ^b	.	.	.	.
Listen FP on TV					
No	0.095	0.171	1.099	0.960	1.259
Yes	0 ^b	.	.	.	.
Listen FP in the newspaper					
No	0.059	0.505	1.061	0.892	1.262
Yes	0 ^b	.	.	.	.

^a The reference group is: Wanted.

^b This variable is set to 0 because it is unnecessary.

* FP = Family Planning.

women with more than three children. The likelihood of mistimed pregnancy for the women who wanted more children was 0.545 (0.490, 0.606) times less than women who wanted no more children.

Women with no children's deaths had 1.619 (1.075, 2.438) times more anticipated announcing mistimed pregnancy than the women with more than two dead children. On the other hand, women with one dead child had 1.200 (0.781, 1.843) times more probability of mistimed pregnancy than women with more than two dead children.

5.2. Correlates of unwanted pregnancy

It was found that the probability of unwanted pregnancy for women age 15–19 years was 0.922 (0.646, 1.315) times less than the women whose age is 30 years and older. The probability of unwanted pregnancy for the women whose age is between 20 to 24 years and 25–29 years were respectively 0.630 (0.530, 0.750) and 0.784 (0.687, 0.895) times less than the women with age of 30 years and over.

The probability of unwanted pregnancy as compared to wanted pregnancy for the women living in urban areas was 1.270 (1.089, 1.481) times more than women living in rural areas. The probability of unwanted pregnancy as compared to wanted pregnancy for the women who got married before 18 years old was 1.182 (1.048, 1.333) times more than women who got married aged 18 and over.

The probability of unwanted pregnancy compared to wanted pregnancy for the women living with their husband was 1.338 (1.099, 1.628) times more than women living elsewhere.

Poor women had 1.680 (1.397, 2.020) times more probability of undesired pregnancy as compared to desired pregnancy than rich women.

The probability of undesired pregnancy in comparison to desired pregnancy for the women with no education was 1.148 (0.991, 1.330) times more than women with an above secondary level of education.

The probability of unwanted pregnancy for women with no children

was 0.096 (0.071, 0.131) times less as compared to the women with more than three children. Women with 1–2 children had 0.243 (0.210, 0.280) times less probability of undesired pregnancy as compared to desired pregnancy than women with more than three children.

The probability of undesired pregnancy in comparison to desired pregnancy for the women who wanted more children was 0.152 (0.127, 0.183) times less than women who wished no more children. The probability of undesired pregnancy as compared to desired pregnancy for the women undecided about children was 0.195 (0.150, 0.254) times less than women who wanted no more children. Women with no dead offspring had 2.035 (1.539, 2.691) times more probability of unwanted pregnancy than women with greater than two dead children. Women with one dead child had 1.361 (1.005, 1.843) times more likelihood of unwanted pregnancy than women with more than two dead children.

6. Discussion

To determine the triggering factors of unwanted pregnancy in India was the main focus of this study, revealing that undesired pregnancy is widespread among Indian females. The bivariate analysis showed that determinants such as age, type of residence, age group at the first wedding, husband residence, wealth status, education, total offsprings ever born, fertility preference, subtotal of dead children, and exposure of radio, television, and newspaper were significantly associated with an unintended pregnancy. In the multivariate statistical analysis, the age group of females, type of residence, age group at the first wedding, husband residence, wealth status, children ever born, fertility preference, heard Family Planning on TV and newspaper were presented to affect undesired pregnancy most significantly. This review has illustrated that the women of the younger age group have a higher chance of having the recent pregnancy as an ill-time one. Mistimed pregnancy is higher among younger women of the teenage group and decreases with the rising age of the women. These findings are similar to the studies reported by.^{19–22} Respondents with the age of more than 30 are mostly expected to face an undesired pregnancy. A similar result was found for married pregnant women in Indonesia, which shows that higher the age groups from which women belong, the higher the probability of having unwanted pregnancies will be. The survey organized in Egypt also confirmed the same result²³ (Jaeni et al., 2007). Analysis of this study revealed that women living in urban areas had fewer chances to have ill time pregnancies than those residing in rural areas.²⁴ This could be due to poverty, limited availability of health services, and poor utilization of health care facilities, and ignorance.²⁵ We have found a significant relationship among age at first marriage with mistimed and not wanted pregnancy in India. Respondents that belong to the age group of fewer than 18 years were more anticipated to have not desired pregnancies than the women with age of more than or equal 18 years. Similar findings have been reported in Ethiopia.^{26,27} The reasons behind this could be that the women who were married before 18 years are not prepared psychologically, economically, and physically to have pregnancy.^{27,28} Women's economic status has an important influence on unwanted pregnancy, and the results of this are similar to the finding of.²⁷ Women from poor family backgrounds were more anticipated to have unwanted pregnancies than the women with wanted pregnancies as compared to the women from wealthy family backgrounds.²⁸ The current study revealed that there is no significant relationship between respondent educations with the incident of unwanted pregnancy.^{29–31} It has been reported the same findings were seen in Japan, Kenya, and Nepal, respectively. The current study's results contradict the usual typical perception and other articles that show the association between unwanted pregnancy and women's education.^{28,32} Women with a desire to have more children but were unsettled were less anticipated to announce unintended pregnancy than those who want no more children. The same findings have been reported in Africa by.^{19,23} A respondent with 0 or 1–2 children is less likely to have mistimed pregnancy as compared to the respondent with three or more children. This is because

the respondent that has no or 1–2 children wants more children; consequently, they want to be pregnant.²³ The multivariate analysis consequences illustrate that those who have no daily approach to mass communication (Radio, TV, and Newspaper) were more anticipated to announce mistimed pregnancy as compared to those who have access to mass communication. It is signified that mass communication has an essential role in decreasing unwanted pregnancies because it gives a broader array of awareness.^{33,34}

7. Conclusion

In conclusion, the high percentage of unwanted pregnancies is not caused by a single factor. Numerous variables have contributed to this respect. Amongst them, this review has revealed that the age group of females, type of residence, age at the first wedding, husband residence, wealth status, children ever born, fertility preference, heard FP on TV and newspaper are the most powerful determinants of unwanted pregnancies. In brief, the objective of the reproductive health plan is to remove unwanted pregnancies by concentrating on all these acknowledged determinants. Children and mother death, disease, and the necessity for abortion are declined, and the thorough health status of the family members is sustained and improved.

Ethical approval

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Consent to participate

Not applicable.

Availability of data and material

Data are available upon request from DHS data.

Declaration of competing interest

The authors have no conflicts of interest to declare.

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