

*Original Research Paper*

## Attitude and Practice of Women toward Unplanned Pregnancies and factors affecting their Decision-Making Process

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### ABSTRACT

**Background:** Globally, half of unplanned pregnancies end in abortion. Abortion is considered one of the most controversial, poorly understood, and socially unaccepted aspect of family planning. In Iraq, abortion remains illegal unless the mother's life is in danger or there is a possibility of fetal impairment. Despite that, over 10% of married woman induce abortion to control births. These points prompted us to conduct research on the attitude and practice of women towards unplanned pregnancies and factors that affect their decision making.

**Methodology:** A cross sectional study was conducted in three hospitals of Erbil city in Iraq from April 1, 2022, to September 1, 2022. A sample of 400 women with unplanned pregnancies attending the outpatient clinics of these hospitals were interviewed with pretested questionnaire. The data was analyzed using IBM SPSS.

**Results:** The prevalence of abortion among the studies sample was 8.3%. Majority of women believed that the final decision maker should be doctor while deciding for an induced abortion and that the laws should remain restricted. Several factors were found to be significantly associated with the decision to terminate unplanned pregnancy among women. These include having a high school education, feeling unhappy about the pregnancy, contemplating abortion, having a history of abortion, supporting the pregnant woman's right to make the final decision, and believing that abortion should be legal.

**Conclusions:** We recommend providing psychological support for women who are experiencing an unplanned pregnancy to help them with their confidentiality and educate them about the physical and psychological risks of unsafe abortion.

**Keywords:** Pregnancy, Planned, Unplanned, Decision-making, women.

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### Introduction

Pregnancy is considered an extremely stressful time for women and their families. However, an unplanned pregnancy may catch the mother even more off guard and result in unpleasant consequences. A planned pregnancy is when getting pregnant is an objective, contraception is stopped, both partners agree to the pregnancy, and the timing is appropriate in the stages of both parents' lives [1]. An unplanned pregnancy, however, is a pregnancy that is not desired or the timing is not proper for one or both parents [2].

Globally, 40% of pregnancies are unplanned, 50% of which end in abortion-the termination of a pregnancy before viability of foetus [3-4]. Abortion is considered one of the most controversial, poorly understood, and socially unaccepted aspect of family planning [5]. Aside from its physical risks<sup>6</sup>, divergent theological views on induced abortion, as well as those held by secular humanists, liberals, and feminists, have led to disagreements that have ultimately resulted in violent acts and loss of lives affecting numerous fundamental human rights and ethical values [5,7].

Majority of countries have legal restrictions regarding abortion. By the 20<sup>th</sup> century, the equal rights and opinions of women had to be regarded by nations to consider their decisions seriously [8]. Nevertheless, in Iraq, abortion remains illegal unless the mother's life is in danger or there is a possibility of foetal impairment [9]. Despite that, over 10% of married woman induce abortion to control births; this prevalence in Erbil city has increased to nearly 27.7% [5,7].

All the points mentioned have limited the number of studies on the subject and the ethical aspects of it, specifically in Erbil, prompted us to conduct research on the attitude and practice of women towards unplanned pregnancies and the factors that affect their decision-making.

The objectives of the study was at detecting the attitudes, intentions, and behaviours regarding unplanned pregnancies. Finding out the prevalence of unplanned pregnancies that end up with abortion. Identifying the factors that affect the women's decision-making process for ladies during unplanned pregnancies.

### Methodology

A cross sectional study was conducted in Erbil (Maternity teaching hospital, Rizgary teaching hospital, and Al-Maseef hospital) from Jan 2<sup>nd</sup> 2023 to May 31<sup>st</sup> 2023. The study included 400 women who had experienced at least one unplanned pregnancy, selected by a convenience sample of outpatients attending the mentioned hospitals, as well as inpatients of the maternity teaching hospital. Those women were interviewed by the researchers using a questionnaire designed by the research team. The questionnaire consisted of three parts: *the sociodemographic characteristics of the woman and her husband* (age, ethnicity, religion, place of residency. etc.), *history of previous pregnancies (planned and unplanned) or abortions*, the woman's knowledge regarding family planning, questions regarding behaviour towards unplanned pregnancy, and *women's perspective regarding unplanned pregnancy*. For those who have had more than one unplanned pregnancy, questions were directed towards last unplanned pregnancy. A pilot study was conducted on a sample of 20 women to assess the adequacy of the questionnaire. The questionnaire was modified accordingly based on the feedback received from these 20 women and they were excluded from the study.

Ethical approval was taken from the research ethics committee of the college of medicine, of the Hawler medical University. Verbal consent was obtained from all the patients who were interviewed, and their personal information was kept confidential.

### Data Analysis

The data analysis was performed using statistical package for social sciences (IBM SPSS Software version 26). Microsoft Excel was used for making the graphs and summarizing the data. Chi square and Fishers exact test were used to test the significance of the associations between variables. A P value  $\leq 0.05$  was deemed statistically significant.

### Results

#### Socio-demographic characteristics of respondent

A total of 400 women were involved in the study with a response rate of 100%. The mean age (SD) of the respondents was 36.9 (10.4) years. The majority (91.3%) of the participants were Kurdish, and (98.3%) were Muslim in religion. More than half (52.5%) of the women were living in the Urban areas. The majority (94.5%) were married, and more than two thirds of them (68.5%) were housewives and were dependent on their family for income (69.0%). More than half of the women (59.3%) had an income sufficient for their daily needs (Table 1).

**Table 1: Socio-demographic Characteristics of the Women**

<b>Variables</b>	<b>No.</b>	<b>(%)</b>
<b>Age</b>		
<30	97	(24.3)
30-39	153	(38.3)
40-49	99	(24.8)
≥50	51	(12.8)
<b>Ethnicity</b>		
Kurdish	365	(91.3)
Arabic	28	(7.0)
Turkman	6	(1.5)
Shabak	1	(0.3)
<b>Religion</b>		
Muslim	393	(98.3)
Non-Religious	7	(1.8)
<b>Marital status</b>		
Single	3	(0.8)
Married	378	(94.5)
Divorced	6	(1.5)
Widowed	13	(3.3)
<b>Residency</b>		
Urban	210	(52.5)
Suburban	182	(45.5)
Rural	8	(2.0)
<b>Education</b>		
Illiterate	80	(20.0)
Primary School	128	(32.0)
High School	65	(16.3)
College/Institute	106	(26.5)
Postgraduate	21	(5.3)
<b>Occupation</b>		
High Rank	76	(19.0)
Non-Manual Worker	23	(5.8)
Skilled Manual	11	(2.8)
Unskilled Manual	16	(4.0)
Housewife	274	(68.5)
<b>Income</b>		
Insufficient for daily needs	86	(21.5)
Sufficient for daily needs	237	(59.3)
Exceeds daily needs	77	(19.3)
<b>Financial independency</b>		
Yes	124	(31.0)
No	276	(69.0)
<b>Total</b>	<b>400</b>	<b>(100.0)</b>

**Socio-demographic characteristics of husbands**

Out of 400 participants, 377 had a current husband with mean age (SD) of the husbands being 40.89 (11.232) years. The majority (96.6%) were Muslims, 111 (29.4%) have finished primary school and 128 (34.0%) were skilled manual workers (Table 2).

**Table 2: Husband's socio-demographic Characteristics**

<b>Variables</b>	<b>No.</b>	<b>(%)</b>
<b>Age</b>		
<30	55	(14.6)
30-39	131	(34.7)
40-49	100	(26.5)
≥50	91	(24.1)
<b>Religion</b>		
Muslim	364	(96.6)
Non-Religious	13	(3.4)
<b>Education</b>		
Illiterate	36	(9.5)
Primary School	111	(29.4)
High School	98	(26.0)
College/Institute	103	(27.3)
Postgraduate	29	(7.7)
<b>Occupation</b>		
High Rank	78	(20.7)
Non Manual Worker	51	(13.5)
Skilled Manual	128	(34.0)
Unskilled Manual	99	(26.3)
Unemployed	21	(5.6)
<b>Total</b>	<b>377</b>	<b>(100)</b>

**Decision toward unplanned pregnancy**

Out of 400 women, 367 (91.7%) didn't terminate an unplanned pregnancy. Whereas 33 (8.3%) have terminated an unplanned pregnancy (Figure 1). Out of those 33, more than half (57.6%) was their own decision. 9 (27.3%) were financially not ready or their husbands had influence as the most common cause for termination, the least causative factors for termination were interference with education, undesired fetal sex and medical disease of the mother at (6.1%) individually. More than half (63.6%) of them were terminated at a nurse's house illegally. Majority (78.8%) hadn't had their baby's sex determined. Half of them (51.5%) were done at the gestational age of 5-8 weeks (Table 3).

**Table 3: Pattern of terminated pregnancy**

<b>Variables</b>	<b>No.</b>	<b>(%)</b>
<b>Was it mother's own decision?</b>		
Yes	19	(57.6)
No	14	(42.4)
<b>Cause of termination</b>		
Financially not ready	9	(27.3)
It was unplanned	5	(15.2)
Husband's Influence	9	(27.3)
Interference with vocational and educational plans	2	(6.1)
Undesired sex of baby	2	(6.1)
Congenital anomaly	4	(12.1)
Medical disease	2	(6.1)

<b>Place of termination</b>		
Hospital	12	(36.4)
Home	21	(63.6)
<b>Gestational age at termination</b>		
1-4	7	(21.2)
5-8	17	(51.5)
9-12	4	(12.1)
≥13	5	(15.2)
<b>Sex of the baby</b>		
Female	4	(12.1)
Male	3	(9.1)
Undetermined	26	(78.8)
<b>Total</b>	<b>33</b>	<b>(100)</b>

### Attitude of women towards unplanned pregnancy

Out of 400 women with an unplanned pregnancy, 198 (49.5%) women and 248 (65.6%) husbands were happy about the unplanned pregnancy and accepted it. The majority (77.8%) didn't think about termination, despite it being unplanned. 321 (80.3%) of legitimate causes for ending a pregnancy were medical problems of mother, and 34 (8.5%) were against abortion regardless of the any reason. Majority (79.8%) were not with the legality of termination in Kurdistan. 159 (39.8%) answered 'doctors' to be the final decision makers for termination of pregnancy, and on the second place the mother by 143 (35.8%) (Table 4).

**Table 4: Attitude of women towards unplanned pregnancy**

Variables	No.	(%)
<b>Feeling toward unplanned pregnancy</b>		
Happy and accepted	198	(49.5)
Not happy but accepted	158	(39.5)
Not happy and didn't accept	44	(11.0)
<b>Husband's feeling toward unplanned pregnancy</b>		
Happy and accepted	248	(65.6)
Not happy but accepted	101	(26.7)
Not happy and didn't accept	28	(7.4)
Others	1	(0.3)
<b>Thinking of ending unplanned pregnancy</b>		
Yes	89	(22.3)
No	311	(77.8)
<b>Legitimate causes for ending a pregnancy as perceived by women*</b>		
Medical problem of mother	321	(80.3)
Financially not ready	56	(14.0)
Mother thinks she can't focus on the child	37	(9.3)
Husband is not supportive	75	(18.8)
Rape	68	(17.0)
Congenital anomalies	25	(6.3)
Never	34	(8.5)
Others	5	(1.3)
<b>Should terminating pregnancy be legal in the region?</b>		
Yes	81	(20.3)
No	319	(79.8)

<b>Who should be final decision maker?</b>		
Pregnant lady	143	(35.8)
Husband	38	(9.5)
Doctors	159	(39.8)
Clergy	56	(14.0)
Others	4	(1.0)
<b>Total</b>	<b>400</b>	<b>(100.0)</b>

\*The total is more than 400, since participant could choose more than one option in this question.

### Family planning practice and percentage of unplanned pregnancy to all pregnancies amongst the sample

Out of 400 women, only 81 (20.3%) of them had family planning program.

### Association between termination of pregnancy and other variables

According to our results, the variables which were significantly associated with termination of an unplanned pregnancy were mothers with a high school education ( $n = 0.014$ ), mother neither happy nor accepting of the pregnancy ( $p < 0.001$ ), husband neither happy nor accepting of the pregnancy ( $p < 0.001$ ), mothers thinking of termination ( $p < 0.001$ ), and those with previous abortions ( $p < 0.001$ ). The results show that the women who have terminated an unplanned pregnancy were predominantly of age group of 35-45 during the time of pregnancy (9.9%), from urban areas (10.5%), financially dependent (10.5%), have medium socioeconomic status (9.5%), sufficient income for daily needs (8.4%), gravidity of more than 9 (12.5%), and have family planning (11.1%). These variables were all insignificant. Most of the women who have had a termination have answered the mother to be the final decision maker in abortion of an unplanned pregnancy (14.0%), and 25.9% were with the legality of abortion in Kurdistan (Table 5).

**Table 5: Association between decision towards termination of pregnancy and other variables.**

Variables	Termination			P value
	Yes	No	Total	
	No. (%)	No. (%)	No. (%)	
<b>Education (Mother)</b>				
Illiterate	5 (6.3)	75 (93.8)	80 (100.0)	0.014
Primary School	7 (5.5)	121 (94.5)	128 (100.0)	
High School	12 (18.5)	53 (81.5)	65 (100.0)	
College/Institute	9 (8.5)	97 (91.5)	106 (100.0)	
Postgraduate	0 (0.0)	21 (100.0)	21 (100.0)	
<b>Residency</b>				
Urban	22 (10.5)	188 (89.5)	210 (100.0)	0.195
Suburb	11 (6.0)	171 (94.0)	182 (100.0)	
Rural	0 (0.0)	8 (100.0)	8 (100.0)	
<b>Feeling towards unplanned pregnancy</b>				
Happy and accepted	8 (4.0)	190 (96.0)	198 (100.0)	<0.001
Not happy but accepted	6 (3.8)	152 (96.2)	158 (100.0)	
Not happy and not accepted	19 (43.2)	25 (56.8)	44 (100.0)	
<b>Husband's feeling towards unplanned pregnancy (n=377)</b>				
Happy and accepted	6 (2.4)	242 (97.6)	248 (100.0)	<0.001
Not happy but accepted	6 (5.9)	95 (94.1)	101 (100.0)	
Not happy and not accepted	17 (60.7)	11 (39.3)	28 (100.0)	
Other				

<b>Financial independency</b>				
Yes	13 (10.5)	111 (89.5)	123 (100.0)	0.276
No	20 (7.2)	256 (92.8)	276 (100.0)	
<b>Thinking of terminating</b>				
Yes	28 (31.5)	61 (68.5)	89 (100)	<0.001
No	5 (1.6)	306 (98.4)	311 (100)	
<b>Income</b>				
Insufficient for daily needs	7 (8.1)	79 (91.9)	86 (100.0)	0.983
Sufficient for daily needs	20 (8.4)	217 (91.6)	237 (100.0)	
Exceeds daily needs	6 (7.8)	71 (92.2)	77 (100.0)	
<b>Family Planning</b>				
Yes	9 (11.1)	72 (88.9)	81 (100.0)	0.295
No	24 (7.5)	295 (92.5)	319 (100.0)	
<b>Number of Unplanned pregnancies</b>				
1-4	30 (8.2)	338 (91.8)	368 (100.0)	0.721*
5-8	2 (8.3)	22 (91.7)	24 (100.0)	
>9	1 (12.5)	7 (87.5)	8 (100.0)	
<b>Ever done abortion</b>				
Yes	29 (64.4)	16 (35.6)	45 (100.0)	<0.001
No	4 (1.1)	351 (98.9)	355 (100.0)	
<b>Age at unplanned pregnancy</b>				
15-24	9 (8.1)	102 (91.9)	111 (100.0)	0.855
25-34	15 (8.0)	173 (92)	188 (100.0)	
35-45	9 (9.9)	82 (90.1)	91 (100.0)	
<b>Socio-economic Status (n=377)</b>				
Low	11 (6.7)	154 (93.3)	165 (100.0)	0.685
Medium	10 (9.5)	95 (90.5)	105 (100.0)	
High	9 (8.4)	98 (91.6)	107 (100.0)	
<b>Final decision maker</b>				
Pregnant lady	20 (14.0)	123 (86.0)	143 (100.0)	0.009*
Husband	2 (5.3)	36 (94.7)	38 (100.0)	
Doctors	5 (3.1)	154 (96.9)	159 (100.0)	
Religious man	6 (10.7)	50 (89.3)	56 (100.0)	
Others	0 (0.0)	4 (100.0)	4 (100.0)	
<b>Legal</b>				
Yes	21 (25.9)	60 (74.1)	81 (100.0)	<0.001
No	12 (3.8)	307 (96.2)	319 (100.0)	
<b>Total</b>	33 (8.2)	367 (91.8)	400 (100.0)	

\*Fisher exact test used for analysis.

#### Relationship between number of unplanned pregnancy and other variables

The results of this study showed that the variables which were significantly associated with increased number of unplanned pregnancies to 5-8 were mothers of age group of >50 at (15.7%), low socioeconomic status (9.7%), and those who have no family planning (7.5%). Those who were living in the Rural areas were more likely to have unplanned pregnancy of more than 5 at a percentage of (12.5%) in comparison to Urban or Suburban areas (Table 6).

**Table 6: Association between number of unplanned pregnancy and other variables**

Variables	Number of unplanned pregnancies				p value
	1-4	5-8	≥9	Total	
	No. (%)	No. (%)	No. (%)	No. (%)	
<b>Age</b>					
<30 years	97 (100)	0 (0)	0 (0)	97 (100.0)	<0.001
31-39 years	148 (96.7)	5 (3.3)	0 (0)	153 (100.0)	
40-49 years	85 (85.9)	11 (11.1)	3 (3)	99 (100.0)	
>50 years	38 (74.5)	8 (15.7)	5 (9.8)	51 (100.0)	
<b>Residency</b>					
Urban	192 (91.4)	16 (7.6)	2 (1.0)	210 (100.0)	0.138*
Suburb	169 (92.9)	7 (3.8)	6 (3.3)	182 (100.0)	
Rural	7 (87.5)	1 (12.5)	0 (0.0)	8 (100.0)	
<b>Socio-economic</b>					
Low	142 (86.1)	16 (9.7)	7 (4.2)	165 (100.0)	0.001*
Medium	100 (95.2)	4 (3.8)	1 (1.0)	105 (100.0)	
High	106 (99.1)	1 (0.9)	0 (0.0)	107 (100.0)	
<b>Family planning</b>					
Yes	81 (100.0)	0 (0.0)	0 (0.0)	81 (100.0)	0.005*
No	287 (90.0)	24 (7.5)	8 (2.5)	319 (100.0)	

\*Fisher exact test used for analysis.

## Discussion

The purpose of this study is to investigate the attitude and behaviour of women towards unplanned pregnancies that they had had. Even though all the women in this study having unplanned pregnancies, there were differences in context, circumstances and individual traits that affected how each woman viewed and cognitively evaluated the incident.

Our results showed that the rate of termination among women with unplanned pregnancy in Erbil was 8.3%. This percentage is much lower compared to surrounding countries like Turkey, where the rate of unplanned pregnancy is 46.2% and 30% of them end in abortion [10]; the rate rises even more in less restricted countries like Germany in which 43.0% of unplanned pregnancies are terminated [11]. We believe that these results are attributed to the laws regarding abortion being restricted which makes the procedure harder to be done compared to a country with less restricted laws. Moreover, 95% of the people in our society are Muslim [12]. Most of them reported that religious beliefs play a significant role in their decision towards accepting an unwanted pregnancy despite being unplanned. Cultural factors also play a role along with the desire for a big family and stigma regarding abortion.

More than half (57%) of the terminated pregnancies were the mother's own decision and 42% were not. Studies in other countries such as the USA show higher rates of confidentiality among women who had been seeking abortion, 87% of the women who sought abortions felt strong confidence in their choice [13]. We believe that our results are the consequence of the current situation of women in Kurdistan. Women in the Kurdish community continue to face obstacles, including dignity related topics, violence, and patriarchy toward their participation in social, political, and economic decisions which collectively affect them and decrease their confidence in decision-making. We can see that the number is still not as expected to be for the modern world, which is aiming for gender equality and decision-making by the woman herself [14-16].

According to our findings, education of the mother was significantly associated with her decision making. Women who have sufficient education (a high school degree) are more likely to have an abortion; illiterate women who might not have enough knowledge and confidence to find an effective and confidential place for abortion without help of others. While this rate declines in highly educated women who are more likely to have knowledge about pregnancy barriers, the risks



of abortion and have desire for a smaller family. In contrast to our finding, a study done in Finland showed that women with basic education had the highest abortion rate compared to higher educational level [17].

However, the women's decisions were not significant with their residency. Nevertheless, we could observe a consistent increase in the rate of abortion among women living in suburban and urban areas compared to those who live in rural areas. The women living in urban areas have more access to health care facilities for the termination of an unplanned pregnancy with more liberty compared to those living in rural areas, where stigma and culture play a role in accepting an unwanted pregnancy.

The feelings of the mother and father towards the unplanned pregnancy show the resultant actions in some of the participants, as those who felt bad and didn't accept the pregnancy were more likely to end it. Feeling negative towards the pregnancy makes decision of termination more likely for the parents, since it increases the perceived threats of the parents towards the pregnancy and the new child. This finding was concomitant with research done in the Sweden which showed that negative feelings were dominant amongst the group of the women who terminated the Unwanted pregnancy compared to the group who didn't terminate [18]. From the findings, we can observe that the effect of husband's feelings is more prominent compared to the mother. And this can support the idea that most of the women are under the effect of their husbands, and it's the husband who decides not the woman herself.

Financial independence and income are not significantly associated with the termination of an unplanned pregnancy for having liberty to spend their money as well as autonomy toward their action. As for high or low income, there appears to be very little effect on the termination of a pregnancy, which may indicate that income has no significant influence on someone's actions.

Amongst women with unplanned pregnancy, those with medium socioeconomic status are more likely to undergo termination by 9.5%, which is inconsistent with a study done in Calgary Canada where low socioeconomic status is more likely to be associated with abortion. This may be since people with low socioeconomic status in Kurdistan have less access to contraceptive methods and can't afford to terminate a pregnancy, and those with high income have more access to effective barriers and reproductive healthcare centres [19].

Family planning, number of unplanned pregnancy and the woman's age at the time of pregnancy, were not significantly associated with the termination of an unplanned pregnancy. However, women who has family planning program were more likely to go through the abortion of an unplanned pregnancy which can be justified by their desire to keep the number of their children the number they have planned. Abortion has a higher rate among women between the age group of 35-45 by 9.9%, which contrasts a study done in Kinshasa showing that the rate of unplanned pregnancies which resulted in abortion is much higher among adolescents (age 15-24) by 18.8% in 2016; this may be due to various contraceptive behaviour [20].

Our results indicate that most women believed that the final decision maker for terminating a pregnancy should be a doctor which we attribute to the lack of confidence and knowledge regarding abortion and its risks among women in our community. However, most of the participants who terminated a pregnancy believe that the final decision maker should be the lady herself. Legality of abortion rated 25.9% among those who had terminated an unplanned pregnancy; however, 3.8% of them believed that legal restrictions that exist regarding abortion should remain.

## Conclusion

The study revealed a complex interplay of variables influencing women's attitudes, intentions, and actions regarding unplanned pregnancies. While most women aligned their feelings with their decisions to accept or terminate the pregnancy, some experienced conflicts during the decision-making process. Women generally believed that doctors should have the final say in induced abortions, with restrictive laws in place. Significant factors influencing decision-making included education, parental influence, abortion legality, and previous abortion experiences. Despite legal, religious, and social barriers, the study found that 8.3% of unplanned pregnancies ended in abortion. To support women facing unplanned pregnancies, it is recommended to provide

psychological assistance, ensuring confidentiality, and raising awareness about the risks associated with unsafe abortion.

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