Original Article

Prevalence of Unintended Pregnancy and Its Related Factors in Kermanshah, Kangavar city (west Iran)

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Abstract

Introduction: Unintended or unplanned pregnancy has been a distressing reality among females in the reproductive age group particularly in developing countries. The current study aimed to determine the prevalence of unintended pregnancy among married women in an urban community in Kangavar city state, to determine the associated factors of unintended pregnancy and to verify the reasons behind unintended pregnancy as perceived by the married women in the area**.**

Materials & Methods: This study was carried out on 248 mothers who referred to health centers of Kangavar, and were selected randomly. Data was collected by valid and reliable questionnaire. Results were analyzed by spss17.

Results: The prevalence of unwanted pregnancy was estimated to be 21/2 percent .About 21.2 of women stated that their pregnancy was unplanned; other two fifth mentioned that their pregnancy was mistimed and the other three-fifth reported unwanted pregnancy. There was a significant relationship between age and type of pregnancy ($p<0.001$), contraception methods and unintended pregnancy ($p<0.001$). Results also revealed a significant relationship between age of women and kind of contraception methods, which they had used ($p<0.001$).

Conclusion: These results showed that extending of the education programs about contraceptive methods is necessary in order to prevent unintended pregnancies and its sequential outcomes

Key words: Unwanted pregnancy, Prevalence, Contraception methods, Kangavar city.

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Introduction

Unintended pregnancy is a Health- cultural problem and, it affects not only women but also their families, society and nations. / Unintended pregnancies are defined as those that occur at an inopportune time, as a result of unfavorable circumstances, or among women who do not want to have children [1]. Unintended pregnancies are present an important social problem all over the world, but are more frequent in developing countries [2]. The level of unintended pregnancy due to health ،social and economic complications can be used as a healthy indicator [3].yearly, approximately One-third of 200 million pregnancies in all over the world are unintended [4]. despite all efforts on family planning In Iran, several studies have reported unintended pregnancy to 18-23 or even 25-35 age groups [5-11], considering young population of Iran, this fact needs more attention. Unintended pregnancy can occur among women from every social, demographic and economic class [12], but generally has two reasons: first, non-accessibility of contraceptive, illegal sexual behavior, religious beliefs, lack of knowledge about the role of contraceptive methods in preventing unintended pregnancies, economic limitations, disagreement of family members and their fears of probable consequences of contraceptives on their fertility in the future so that they do not use any contraceptive methods. Second, failure of contraceptive methods [13, 14]. Many studies on unintended pregnancy had shown that unintended pregnancies are associated with a number of negative consequences. Women with an unintended pregnancy are more likely to have delayed or received inadequate prenatal care [15], they have poorer health outcomes and are more likely to experience spousal abuse [16]. Unintended births are associated with delayed prenatal care, smoking during pregnancy, not breastfeeding the baby, poorer health during childhood, and poorer outcomes for the mother and the mother-child relationship [17], so that this situation affects the health of both mother and child.

Abortion is another maternal health risk associated with unintended pregnancy and, in the developing countries this can result in serious long-term problems [18] when the procedure is carried out in an unsanitary setting or by unskilled medical personnel [19]. Thus an unintended pregnancy effect two important indicators of health, maternal and child mortality. On the other hand, avoiding unwanted pregnancy can reduce maternal mortality and hospital spending [20].

Thus, according to the prevalence of unintended pregnancies among women and its adverse impacts on human health and its social-economic development, its prevalence in different parts of Iran, which is due to religious and cultural conditions prevailing in the country, that leads to unsafe illegal abortion. It is

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necessary to reduce unintended pregnancies to develop effective strategies for the prevention of unintended pregnancies, it is necessary to understand the causative agents of unintended pregnancies and its consequences.

The analyses presented in this report examined the risk factors associated with having an unintended pregnancy, in kangavar city. Social and economic indicators, as well as demographic signs, will be assessed for their influence on the probability that a woman has an unintended pregnancy.

Materials & Methods

The data for this cross-sectional study were collected from a representative sample of 248 pregnant mothers' ages from 15–49 in Kangavar, districts of Kermanshah, Iran at 2014. The population of this study was all of married women 15-49 years of Kangavar who were pregnant and referred to health centers of the city. On the basis of data of these centers, there were about 700 pregnant women that referred to theses health centers, so according to Cochran formula we selected randomly 248 pregnant women and required data were collected through questionnaires completed by pregnant women. According to the subject of study, a researcher-made questionnaire (without name) included questions on age, education, employment, type of contraception and type of pregnancy, was given to women. The collected data were analyzed by SPSS17 software and using descriptive statistics and statistical tests.

Results

Distribution of Respondents by Socio-Demographic Characteristics: In this research 248 mothers attended in kangavar´s health centers, were studied. Demographic characteristics of the participants are presented in Table 1. According to the findings, the mean age of mothers was 31.3 ±7.4 (18-50 years old). More than one half of the respondents (60.1%) were from 26-35 age group, The youngest (`18-25years) respondents accounted for 17.3% and the oldest (>36years) accounted for 22.6% of the total respondents. Furthermore, 7.7 % and 41.1% had primary education and diploma education, respectively. 46.4 % had bachelor and 4.8% had Master's degree and higher. Also 27 % of mothers were employed and 73 % were unemployed.

As seen in the (table 1), almost half of the women participating in the study (47.6%) had used contraceptive pills, and the rest had used IUD (21.8), withdrawal (15.7%), Condoms (2.4%) and injection (12.5%) (See table1).

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Table 1: Frequency distributions of individual variables of pregnant women

		(n)	(%)
Type of pregnancy	Intended pregnancy	178	71.8
	Unintended pregnancy	70	28.2
Education	primary	19	7.7
	Diploma	102	41.1
	Bachelor	115	46.4
	Master and higher	12	4.8
Age group	18-25	43	17.3
	26-35	149	60.1
	36-50	53	22.6
Employing	employed	67	27
	unemployed	181	73
Contraceptive use	withdrawal	39	15.7
	IUD	54	21.8
	pill	118	47.6
	Condoms	6	2.4
	injection	31	12.5

Prevalence of Unintended Pregnancy: From 248mothers participating in the study, 178 (71.8%) had planned pregnancy, whereas 70 mothers (21.2) stated unplanned pregnancy and, about two fifth of these mothers mentioned that they wanted their current pregnancy, later (mistimed=40%) while the other three-fifth srated that they did not want their current pregnancy at all (Unwanted =60%) Of these, 91.4 % said that the cause of their pregnancy was failures in contraception.

Effective factors on type of pregnancy:In the following section we have discussed the influence of various factors on the type of pregnancy.

To evaluate the effects of age on type of pregnancy, T-test was used to compare means. As shown in table2, the mean age of pregnant women who had an unwanted pregnancy (33.3 years old) was higher than those who had planned pregnancy (30 years old) (see table2).

According to results, T-test showed a significant relationship between the age of women and type of pregnancy (p=0.006). In fact, data revealed that older mothers, have more intended pregnancy than younger mothers. This means that, younger mothers had more unintended pregnancy than older ones.

Table2: The t-test results based on age and type of pregnancy

Type of pregnancy	Number	mean	t-test
Intended pregnancy	178	33.5±7.1	T=2.77
Unintended pregnancy	70	30.4±7.4	Sig= 0.006

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And in Table 3, we have discussed the effect of level of education; employment and kind of contraception methods on type of pregnancy, in this respect chi-square test was used. Results showed that there is no significant relationship between level of education and unintended pregnancy. in addition, there is no significant relation between employment and unintended pregnancy. In fact this test showed that, education and employment had no effects on intended or unintended pregnancy. But as evidence, there is a significant relationship between type of contraception methods and unintended pregnancy (P=0.001). In other words, using of various contraception methods had different effects on type of pregnancy. Women who used withdrawal, IUD and condom, had more unwanted pregnancy than those who used pill, (table 3).

Table 3: The correlation results

Variables		Type of pregnancy: Intended %	Unintended %	value	sig
Education	primary	68.4	28.2	Chi-Square=	0.950
	Diploma	71.6	33.3	0.35	
	Bachelor	73	27		
	Master and higher	66.7	33.3		
Employing	employed	68.7	31.3	Phi and Cramer's V= - 0.042	0.507
	unemployed	72.9	27.1		
Contraceptive use	withdrawal	28.2	71.8	Phi and	0.001**
	IUD	63	37	Cramer'sV=	
	pill	91.5	8.5	0.50	
	Condoms	66.7	33.3		
	injection	67.7	32.3		

With regards to the influence of age and contraceptive methods on type of pregnancy, in this part we discussed the relation between these two major factors. For this, to investigate the relationship between age of mothers and the contraceptive methods they used analysis of variance between groups and F was used. The results are presented in (tables 4).

Table4-1: descriptive table of mean age and contraception methods

Contraceptive use	number	mean	S.D	S.E
withdrawal	39	.2821	.45588	.07300
IUD	54	.6296	.48744	.06633
pill	118	.9153	.45588	.02575
Condoms	6	.6667	.51640	.21082
injection	31	.6774	.47519	.08535
total	248	.7177	.45101	.02864

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Table4-2: One-way analysis of variance on mean age of mothers and contraceptive methods

	Sum of Squares	df	Mean Square	F	sig
Between Groups	12.492	4	3.123	20.103	0.001
Within Groups	37.750	243	.155		
total	50.242	247			

As the results show, the average use of contraceptive methods is different according to the age of mothers. Analysis of variance was used to examine the difference. The results are shown in (Table 4-2). As it is evidence, there is a significant difference between mean age of mothers and kind of contraception methods they used. Based on the results, it can be said that there is a significant difference between mean age of mothers and type of contraception methods that they had used, But to clarify more precisely and to show the direction of this difference, we have used Scheffe test. The results of this test are shown in (Table 4-3).

Table4-3: Scheffe test results on the mean age and contraception methods

		withdrawal	IUD	pill	Condoms	injection
Scheffe	withdrawal	-	0.002	0.001	0.295	0.002
test	IUD	0.347*	-	0.001	0.998	0.990
	pill	0.633	0.285*	-	0.686	0.166
	Condoms	0.384	0.037	- 0.248	-	0.998
	injection	0.395*	0.047	- 0.237	0.0105	-

Based on the results obtained, the relationship between maternal age who had used withdraw with who had used I.U.D, pill, injection and those who had used pill and who had used I.U.D were significant. This means that the mothers who use I.U.D, were older than who use withdraw, while mean age of mothers who use pill were higher than mothers who use I.U.D and injection. And also mothers who use injection, were older than who use withdraw.

Table 5: Multivariate logistic regression

variables		β	Odds ratio	p
age		-2.1	0.954	0.035
Contraceptive* use	IUD	3.04	4.1	0.002
	pill	6.68	27	0.001
	condom	1.99	7.2	0,046
	injection	3.26	6.3	0.001

*Reference variable withdrawal method

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Table 5 shows the results of multivariate logistic regression analysis. We used a logistic regression model to assess risk factors associated with unintended pregnancy. The variables we considered were age, education, employment status of mothers and kind of Contraceptive use. As we can see in table, just age of mothers and kind of contraceptive use were effective variables. As shown in Table 5, Age has a negative relationship with unwanted pregnancy. This means that with increasing age of mothers the risk of unwanted pregnancy decreases and vice versa, the risk of unwanted pregnancies increases with reducing maternal age. The next effective variable is the type of contraceptive use. According to the results, the risk of unwanted pregnancy of mothers who use IUD is 4 times less than mothers use withdrawal method. Also the risk of unwanted pregnancy with using pill is 27 times less, condoms 7 times less and injection 6 times less than using the withdrawal method.

Discussion

This study has shown that the proportion of unintended pregnancy among married women of reproductive age in compared to the total of Iran, is nearly high, as it was reported that 21.2% of women had unintended pregnancy while this rate for Iran, had reported 27.9% for years 2008-2013 [20-32].

It is noteworthy that people in this survey, were mothers who had attended to health centers, as a result it does not include women who had abortion, so we can say that the more percentages of pregnancy were unintended in Kangavar city. With analyzing the effective factors on unintended Pregnancy, the result showed that, there are not significant relationships between levels of education, employment of mothers and type of their pregnancy, whereas age and contraception methods had prominent effect on type of pregnancy.

This study has shown that the lower the age of mothers, the higher the probability of having current pregnancy as an unintended. While some other study such as Exavery and et al (2014) in Tanzania [32], obtained the similar results. But it is contrary to study conducted in currently married pregnant women in Iran [34] and all women of reproductive age in Nigeria [35] and Nepal Also the results showed that all mothers who experienced unintended pregnancy knew the cause of this, the type of their contraception method which they used. Many studies have noted that one of the major causes of unintended pregnancy is failure of contraception methods [10, 35-37].

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