UNWANTED PREGNANCY AFTER EARTHQUAKE IN BAM CITY, IRAN

Mina Moeini[1], Nasrin Mokhtari[2], Zamane Vafaei[1*]

1. *Department of health, Isfahan University of Medical Sciences, Isfahan, Iran*
2. *Department of dentistry, Khorasgan University of Dentistry Sciences, Iran*

A r t i c l e   I N F O

A B S T R A C T

Introduction: Pregnancy and childbirth are always at risk in many regions of low and middle-income countries.This is especially during and after natural disasters.For this reasons, many couples would rather not to risk pregnancy during this period;however, lack of contraceptives to postpone pregnancy when family planning isn't performed and neglected.This can have serious consequences which is named unwanted pregnancy.Here,we analyzed effect of some factors on unwanted pregnancy after earthquake.

 Methods: It was a cross-sectional study on 256 randomly pregnant women who were referred to different health centeres in Bam city. Data was conducted base on questionnaire, and all the analysis was performed using SPSS(version19 statistical analysis soft ware).

Results:The prevalenc of unwanted pregnancy was 28.1% .Therfore,there were significant relationship between unwanted pregnancy and age of couples, education of couples , pregnant woman job, history of unwanted pregnancy , type of comtraceptive , number of children,sex of children .

Conclusion:The prevalence of unwanted pregnancy was high in this study.Our assessment showed a critical step for disaster-affected family is consultation with couples(not only women) to identify the factors relating with unwanted pregnancy.

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Introduction

In the past ten years,we had seen high frequency of natural disaster such as (earthquake, floods, dryought,…) in Iran. Earthqeake is the worst disaster in all of them and affected life of people.One branch of life is reproductive health and in any disasters one public health imperative is to understand and respond to couples reproductive health needs. Since, family planning is an essential component of reproductive health it causes appropriate timing between pregnancies.In fact, unwanted pregnancy is a major challenge in family planning and unintended pregnancy refers to a pregnancy that is not desired by man or woman or both of them who did not want to happen the pregnancy at the time of conception[1].Therfore, unintended pregnancy is a common and international problem which influences the women, families and community. Almost all women during the reproductive ages are at the risk of unwanted pregnancy [2]. Overall, about one-third (33%) of the pregnancies in the world are unwanted which is equivalent to approximately 75 million pregnancies per year in worldwide[3]. This number is more than the population of many countries . In Iran, the rate of unwanted pregnancies is estimated around 18.6% per year [1]. In various studies, the incidence of unintended pregnancy is different:35.8% 27.4%, 31.3%, 27.8%, 32.3 %, 40% and 42% [4-1]. Various studies have shown that unintended pregnancies are associated with previous history of unintended pregnancy, maternal age, mother's occupation, educational level of mother and father, number of children and thier gender [2, 4,5,12, 13, 14, 15]. The highest incidence of unintended pregnancies is among users of natural contraception method and oral contraceptive pills consumers [6,7].

According to the National Assessment of Reproductive Health Services in 2005, unintended pregnancy rate in the province of Kerman was 20.4% which is higher than the national statistics including Bam city in this province[16]. To reduce the rate of unintended pregnancy and its complications it is needed to examine and identify the causes of these pregnancies to finally get

Corresponding Author: Zamane Vafaei,   M.S in Epidemiology, Department of health, Isfahan University of Medical Sciences, Isfahan, Iran, Email: zamane.vafaei @ gmail.com

the right counseling and training in the personnel health centers and providing the private sector and better management by knowing the causes of the unwanted pregnancies in this city. Especially since after the earthquake in Bam, the residents of this city have come from different places and the urban context has undergone major changes, so we decided to do a study on this issue.

Methods and Materials

Bam is a city in and the capital of Bam County, Kerman Province, Iran. The 2003 Bam earthquake was a major earthquake that struck Bam and the surrounding Kerman province of southeastern Iran . The modern Iranian city of Bam surrounds the Bam citadel. Data from this study came from a community –based,cross_sectional survey of 256 randomly pregnant women who conducted to several clinics and health centers during 2011. In this study, our tool was questionnaire paper which has been validated in Iran for along time[16].The questionnaire can be used to screen the pregnant's women who are at risk of unwanted pregnancy that has 11questions.This Data was collected through interview and filling up a designed questionnaire containing: social, and demographic characteristics of woman and her partner and history about use of contraceptive,number of children and thier sex,previous unwanted pregnancy,fertility and so forth. All the analysis was performed by using spss(version19,soft ware),descreptive and chi_squer test , t-test and logistic regression for this study.Moreover,the study was approved by ethical research committee of Kerman University of Medical Sciences.

Results

We studied the 256 pregnancies which 184 (71.9%) of them were wanted and 72 (28.1%) of them were unwanted. Women and thier partners whose pregnancies were unwanted were significantly older than women whose pregnancies were unwanted ($p<0.005$) also this study showed us that unwanted pregnancy was higher in pregnant wemon with guidance education, men with high school education, housekeeper wemon, couples used natural methods , couples with 1-2 number children and themselves without child ($p<.05$). (Table 1&2)

In this study ,unwanted pregnancy becomes lower in couple with history of unwanted pregnancy.

When odds ratios were calculat- ed, only the sex of children and level of education in men effect was significant to couples with 1-2 boys were .39 times less likely to have an unwanted pregnancy than couples with zero boys and   couples with 1-2 gilrs were .33 times less likely to have an unwanted pregnancy than couples with zero girls and also men who had high school and Academic literacy v.s Illiterate & Primary ones who had triple unwanted pregnancy (Table 3).

Table 1. Summary results of correlation between socio-demographic and unwanted

Variable	wanted pregnancy		P Value
	Yes	No	
	n=72	n=184	
	n(%)	n(%)	
Age			
Woman	26.6±6	25±5	.03
Man	32±8.2	29±6	.004
Woman Education			
Illiterate & Primary	10(13.9)	15(8.2)	.012
Guidance	27(37.5)	40(21.7)	
High school	24(33.3)	79(42.9)	
Academic literacy	11(15.3)	50(27.2)	
Man Education			
Illiterate & Primary	19(26.4)	16(8.7)	.001
Guidance	21(29.2)	47(25.5)	
High school	24(33.3)	89(48.4)	
Academic literacy	8(11.1)	32(17.4)	
Job(woman)			
Housekeeper	69(95.8)	154(83.7)	.007
Employed	3(4.2)	30(16.3)	

Table 2. correlation between history of unwanted pregnancy, type of contraceptive number of children and unwanted pregnancy in Bam population

Variable	wanted pregnancy		P Value
	Yes	No	
	n=72	n=184	
	n(%)	n(%)	
History of unwanted pregnancy			
Yes	5(6.9)	2(1.1)	.02
No	67(93.1)	182(98.9)	
Type of Contraceptive			
Pill	15(20.8)	20(10.9)	.004
Ampoule	3(4.2)	2(1.1)	
IUD	3(4.2)	4(2.2)	
Condoms	9(12.5)	31(16.8)	
Tubectomy	1(1.4)	0(0)	
Vasectom	1(1.4)	0(0)	
Natural	28(38.9)	58(31.5)	
Without method	12(16.7)	69(37.5)	
Number of cchildren			
Zero	23(31.9)	124(67.4)	<.0001
1-2	39(54.2)	58(31.5)	
3-4	9(12.5)	2(1.1)	
5 and uper	1(1.4)	0(0)	
Number of boys			
Zero	40(55.6)	150(81.5)	<.0001
1-2	30(41.7)	34(18.5)	
3-4	1(1.4)	0(0)	
5 and uper	1(1.4)	0(0)	
Number of girls			
Zero	38(52.8)	149(81.4)	<.0001
1-2	31(43.1)	35(19)	
3-4	3(4.2)	0(0)	
5 and uper	0	0	

Table 3. correlation between unwanted pregnancy and sex children , men education using logistic regression

Variable	Sig	OR	95%CI	
			Lower	Uper
Without boy				
1-2 boys	.005	.39	.2	.7
3-4 boys	1	0	0	
Without girl				
1-2 girls	.001	.33	.17	.83
3-4 girls	.99	0	0	
Illiterate & Primary (Man Education)				
Guidance	.06	2.3	.95	5.9
High school	.012	3	1.27	7.2
Academic literacy	.004	3	1.03	9.8

Discussion

In the present study, the prevalence of unwanted pregnancy has been achieved 28.1%. This rate is higher than the National level (18.6%) and Kerman province (20.4) [1]. This amount is almost the same as the value obtained in a study in Nigeria (28%), Ardebil (30.8%), Mashhad (35.8%), Gilan (27.4 %), Tehran (31.3%), Semnan (25.7 % and 32.2%), Arak (27.8%),

Tabriz (26.7%) and Shahrod (28%)[2,4,5,6,7,9,10,15,17]. This is a major problem in the country because unwanted pregnancy for women at any age is a crisis and abortion is considered a main solution to this crisis.Beside that, the important issue is that an unwanted pregnancy is associated with stress and mental illness [18]. In this study,age of couples (The age of wemon) having unwanted pregnancy is lower than 30 years old, In the same study, in Illam by Khalili et al, Mansouri et al in Mashhad and Kasmai et al in Gilan such a relationship are obtained [5,13,19]. In contrast,in many studies,unwanted pregnancy associated with age of higher than 35 year-old[4,8,20].

Therefore, authors believed that friendly communication and decision making between spouses has a significant effect on family plannig [21].

In fact,unwanted pregnancy was significantly very high in housewives than couples. In study of Kahnamoi et al in Ardabil the results were similar ;however, Shahbazi et al concluded that there is no significant relationship between unwanted pregnancies and jobs [3,7,15]. Until now, they have found a significant colerration between educational level in women and their wives with unwanted pregnancy which was especially observed in that wemon with high school and guidance educations. In other studies, unwanted pregnancy was significantly associated with education level so that it was more common between those who had lower levels of education than others [2-10]. Perhaps, this person with low level of education needs more consultation services and higher education in order to make better decisions for her issue and choose a suitable contraceptive method.

In this study, unwanted pregnancies were significantly so high in (without or natural) methods of users and tablets contraceptive. In other research, the use of tablets, condom and ntural methods are more common between the unintended pregnancies participants [2-10]. According to researcher's idea the natural way,tablet contraception and no method is caused unplanned pregnancy. This could imply the absence or weakness in couples counselling(specially for men) because of contraceptive methods, educational needs in the correct use of tablets, condom use, not by just using natural methods that unwanted pregnancy complications is given.However, many Bam's men who agreed to be interviewed were neither knowledgeable nor particularly obstructive concerning of fertility management .Many of Bam's men had only superficial information about modern or traditional types of contraception and limited experiences from them to give opinions.Vasectomy was frequently refused by men due to fears, despite some of them acknowledged for benefits for themselves as a couple. Fertility management is more often the domain of Bam's women and while this is positive, better information and education for men would enhance the uptake and continuation of reliable and safe family planning.

On the other hand,failure to evaluate other methods such as tablets also raises this question in mind: Do you teach contraceptive method properly given to spouses? Is feedback of teaching given to the wives well done?

In our study in couples that have 1-2 children were higher than others unwanted pregnancy (54.2) and they have none girle or boy have higher odds unwanted pregnancy. (in Faghihzadeh and etall couples that the number of live children resulting from UWPs were 0 or 1 children (22%; n = 672) 2 or 3 children (47.2%; n = 1,089), and more than 4 children (66.1%; n = 682).(3) It seem for Iranian family is important have each sex chidren.

In our study, history of unwanted pregnancy had no effect on the decrease rate of unwanted pregnancies. In Porasl study and et al abortion history and rate of unintended pregnancies has been associated with each other [9].On the other hands, in our study unwanted pregnancy rates in the private sector of clients in . It is suggested that the possibility of abortion in this centers is very high.Furthermore, an unwanted pregnancy in the Islamic countries is a unique challenge ,since abortion is widely practised around the world for a multitude of reasons ,regardless of legal or social sanctions.The specific cultural and political milieu fashions the particular practice and outcome of induced abortion.Especially that it is done in the hospital setting and it has no side effects.nevertheles, in countries like Iran, the incidence of unwanted pregnancy would involve family and community ,for these children should be born and survive and have the necessary facilities [4].This women may be substress and appear to be a key factor in thier decision to end thier pregnancy.Afterthat, they have abortion and suffer from pain, haemorrhage, damage to their internal organs, impaired future fertility, sterility and occasionally death. The vast quantity of death and disability associated with substandard fertility control methods,therefore we need team work to solve this problem for several reasons. First, we believe that much can be achieved by working across academic disciplines as well as cultures and numbers and meanings are equally important. Second,in our opinion local people's atitudes and experiences, particularly men's, are vital in order to provide a complete understanding.In this conclusion, we focus on the broad implications of findings.Clinicians,community leaders,media, researchers, teachers and policy makers can all make contributions.

Conclusions

The eearthquake has created conditions that are likely to bring new threats and challenges to womens.Therefore,for securing their health, we have to include protection as well as good-quality health care. Our results can promote and enhance evidence-based local program,services and policies to improve the reproductive health of couples,as well as, support advocacy efforts.

Acknowledgment

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