

Case Report

Unintended pregnancy simultaneous with using contraception methods in referring to urban health center in Iran 2012-2013

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ABSTRACT:

Introduction and objective: Unintended pregnancy is the cause of increasing mortality in mothers and children, and infliction of additional expenses on health systems. The purpose of this study is to determine the incidence rate of unintended pregnancies simultaneous with using contraceptive methods in the clients of urban health centers in Kohgiluyeh and Boyer-Ahmad province.

Materials and methods: This research is a cross-sectional study which was carried out in the second half of 2011 in continuation of a case - control study on one part of the research that is on the case group. The study populations were all pregnant women who had referred to urban health center in the span of six months to receive prenatal care. The case groups were all women who had got unintended pregnancy despite of using of contraception methods. Data were collected using questionnaires Designed base on the national reproductive health survey 2005 from bureau of pregnant women and household records. The data were analyzed descriptively and analytically Using the SPSS software.

Findings: The result of study showed that incidence rate of unintended pregnancy in study population was 13.4% and 7.1% of them had previously experienced unintended pregnancy at least once. The highest rate of unintended pregnancy had occurred simultaneous with using OCP and uncertain methods respectively (43%, 38%) and the lowest rate had occurred simultaneous with using permanent methods (%0.03).

Conclusion: The incidence rate of unintended pregnancy despite using contraception methods with higher than 97% efficacy is still high. Training effective planning for timing and procedure of use, and training of contraceptive emergency methods are also necessary. The women, who have a complete family, are recommended to use permanent method. In addition the specific consultation for choosing contraception methods is mandatory for women who have recently terminated their unintended pregnancy.

Keywords: Unwanted or Unintended pregnancy, Contraception, Contraceptive failure rate, Iran ,Incidence rate, Cross-sectional study.

INTRODUCTION:

Unintended pregnancy and its side effects (complications) cause uncoordinated growth of

population and increase of mortality in mothers and children⁽¹⁾. Therefore, they are considered as

high risk pregnancies, because of their effects on factors such as medical problems and unhealthy behaviors (illegal abortions) after hese pregnancies occur⁽²⁾ However; even in some of the European countries no contraceptive method is being used currently by 23% of women in reproductive health aged (15 – 49 years)⁽³⁾. Unintended pregnancies cause infliction of additional expenses to the national health systems. The pregnancies are clearly a costly problem in many of the countries. The average direct medical cost of an unintended pregnancy is US\$ 1609 in United States. The total annual number of pregnancies averted by contraceptive use estimated about 12.0 million that the pregnancies averted results in a savings of US\$19.3 billion in direct medical costs⁽⁴⁾. Several studies have evaluated the cost of contraceptive methods previously, including the cost of unintended pregnancy associated with these methods. The results of these studies have shown that most of the costs are related to the failure of contraceptive methods^(5, 6). Despite an increase of use of effective birth control methods including condoms, in some of the studies rates of abortion increased from 14.37 in 2002 to 21.05 per 1000 women in the group aged 20 to 24 years in 2008⁽⁷⁾. Unintended pregnancy means the pregnancy which occurs without the will of couples or any of them. The incidence rate of unintended pregnancy is one of the important indices of qualitative assessment of family planning services. in developing countries The success of family planning process has led to a remarkable reduction in family dimension from 6.1 children in 1960 to 3.9 in recent years⁽⁸⁾. The high rate of family dimension causes the reduction of quality of life in other members of family (especially mothers and children). The limitation of resources, uncoordinated growth of population with economic, social, cultural and educational developments in developing countries leaves destructive impacts on environment, natural and financial resources of these countries. These problems need a profound attention of policymakers and planners of these countries⁽⁹⁾.

Based on results of national surveies, unintended pregnancy is continuously one of the most important problems of 15-49 year old women in Kohgiluyeh and Boyrahmad province⁽¹⁰⁾. Therefore, with respect to the increasing levels of women education, variety of contraception devices, improving the quality of family planning services and educational media as well as more accessibility in comparison to the last decades, also; with regard to the fact that healthcare including family planning in urban population in Iranian health system are provided as passive services, we decided to conduct the study and make its results available to managers and experts to find ways for solving the problem.

METHOD:

This research is a cross-sectional study which was conducted on case group of case - control study conducted in 2011. The study populations were all women who referred to the urban health centers in the province, for the first time to receive preantl cares during a span of six months (23 August 2011 – 20 March 2012). The case groups were all women who had got unintended pregnancy simultaneous with using contraception methods (case group). Inclusion criteria were referring to reception the first inning of care. Referring of health centers in newly established cities (which were under coverage of health houses or active care by rural health workers) were excluded from the study (Inclusive criteria). The overall 2613 pregnant women referred to urban health centers to receive the first their neonatal care In the mentioned span who were identified 350 cases of unintended pregnancy among them totally. Data were collected from bureau of pregnant women and household records of them by two forms designed Based on questionnaires of the reproductive health (the Iranian Ministry of Health IMES₂₀₀₅¹). It is necessary to be mentioned that some data of pregnant women That were not presented in their household records asked

¹ - *Integrated Monitoring and Evaluation survey*

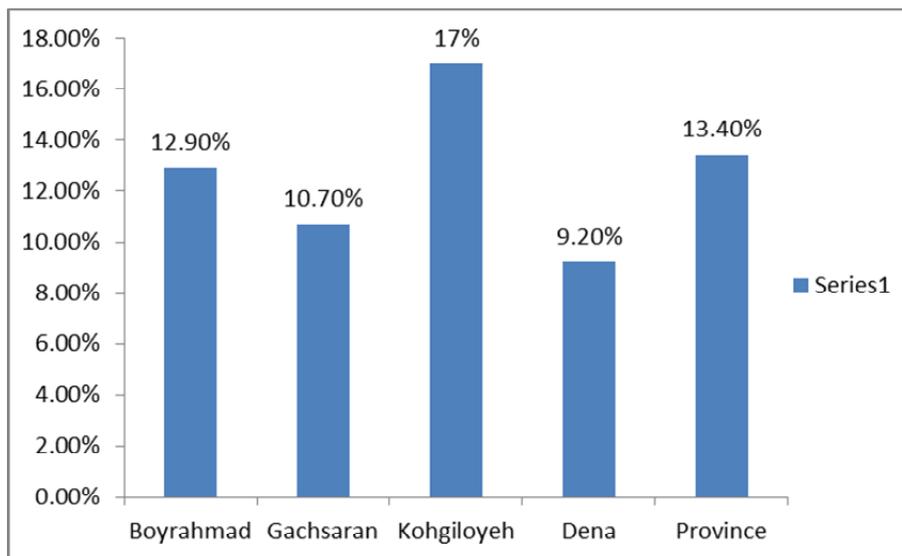
through telephone call or in their subsequent referrals and the questionnaires were completed.

Data were analyzed descriptive and analytical Using SPSS software.

RESULTS:

Based on the results of the study, incidence rate of unintended pregnancy simultaneous with using contraception methods was estimated 13.4% (Dena city has the lowest incidence and Kohgiluyeh cities have the highest rate). The results are provided in Figure 1.

Figure 1 - The incidence rate of unintended pregnancy simultaneous with using contraception methods in pregnant women of referral to urban health centers.



The highest cases of unintended pregnancies in the case-group were occurred simultaneous with using OCP and uncertain methods respectively (43.1%, 38.8%). among OCP users the most cases of unintended pregnancy occurred simultaneous with using LD pill, and the type of pill was unknown in 56.9 of them. Incidence of unintended pregnancy in uncertain methods users has been occurred simultaneous with using Rhythm and withdrawal methods respectively (25.4%, 13.4%). The lowest incidence rate of unintended pregnancies had occurred simultaneous with using permanent methods %0.03. The results are provided in Table 1.

Table: 1 distribution of contraceptive methods Used in the case group

Method of contraception		Number	Percent
OCP	LD	58	38.6
	Lynestronol	3	2
	Three phasic	4	2.6
	unknown	86	56.8
	Total	151	43.1
Uncertain	Withdrawal	47	13.4
	Rhythm	89	25.4
	Total	136	38.8
Condom		49	14
IUD		2	6.0
DMPA		4	1.1
T.L		1	30.0

Vasectomy	0	0
Unknown	7	2
Total	350	100

The results of the research showed that 38% of unintended pregnancies had occurred during the first year of using contraception and nearly one third of cases occurred during the first trimester of using. Also 7.1% case group had previously experienced unintended pregnancy at least once.

DISCUSSION AND CONCLUSION

Family planning in developing countries have led to remarkable reduction of family dimension in recent years, but the rate is still far away from 2.1 children per woman which is the stop-limit of population growth⁽¹¹⁾. One of the reasons of unsuccessful control of birth and family planning schemes is high statistic of unintended pregnancy even in contraceptive methods users. The results of the research showed that the incidence rate of unintended pregnancy in users of contraception methods referring to urban health centers in the province has been 13.4%. In a study by trussell in the US, Women had experienced at least one unintended pregnancy simultaneous with the various methods of contraception within the first year of use, the lowest simultaneous with Implanon and the highest Spermicides (%0.05 - 28% respectively)⁽¹²⁾. In the population with socio-cultural status similar to the people of the Kohgiluyeh and Boyerahmad Such as Booshehr province this index has been reported 24%, and in the another area of iran including Semnan city 25.7% has been reported^(13, 14). The reasons of this failure have been mainly mentioned to be factors such as inattention, unawareness and incorrect use of contraception devices. Of course with regard to the promotion of education levels of women, variety of contraceptive devices, increasing health workers with university educations, implementation of life-time education programs and more access to family planning services generally, it is expected that the index has improved across the country in comparison to the

last decades. The present research showed that 43.1% unintended pregnancies occurred simultaneous with using OCP method (mostly L.D pills 38.6%). The finding is supported by other studies^(14, 15). Hormonal methods (in almost all cases the pills) contributed more than a quarter of estimated unintended pregnancies in 2000 (29%), with slight decline over time (27% in 2005 and 26% in 2010)⁽¹⁶⁾. This is while; in case of correct use of combined oral contraceptive pills will have a high efficacy up to 98%⁽¹⁷⁾. In most of research, The most important reasons this failure have been reported to be lack of correct consultation, unawareness on the time of beginning, continuation, correct way of taking pills and inattention^(13, 18). In a study by Hoseinabadi and colleagues, 24.5% of unplanned pregnancy occurred because of unawareness on proper behavior after forgetting the pills, and 60.7% of women who had given up using their pills had not begun any other contraception method until the time when unintended pregnancy occurred. After giving up the use of pills, and after an interval of unused of any method, 39.3% they had chosen one of the methods with lower efficacy such as withdrawal method and condom⁽¹⁹⁾. In the study conducted by Caroline Moreau and colleagues a tired of women were not using any from contraception at the time of the survey, while less than 3% had an unmet need for contraception⁽¹⁶⁾.

Although study of the reasons for the failure of this method was not possible in the present research. But study this matter is necessary duo to teratogenic property of pills on the fetus and the point that nearly a half of volunteers of birth control in the province are users of contraceptive pills (47.1%)⁽²⁰⁾. OCP using among other countries is difference, in the united states 59% in 2000 and with this proportion declining 52% in 2010⁽¹⁶⁾.

Also it is proposed to give low price alarm clocks to the users of pills with the purpose of remembrance and encouragement, to remind taking pills every day at a fixed time by ringing. Lachovesky has also applied the method to improve the complaints resulted by forgetting the pills, which has been considered as a successful method⁽²¹⁾.

In the present research, 57% of women who had got unintended pregnancy simultaneous with using oral contraceptive pills, the kind of pills were unknown. It seems that a percentage of these women have not been using (taking) contraceptive pills during the time of occurrence of unintended pregnancy, or they had given up contraceptive pills with any reason. The finding is probably to large extent influenced by the problems resulted from self reporting on using contraceptive pills in the samples of the research. This finding is also coherence to the finding in some other studies^(22, 23). According to the results of a study by Hosainabadi and colleagues, in 65% of unplanned pregnancy, women had given up taking pills before the last pregnancy⁽¹⁹⁾.

In the present research unintended pregnancy had occurred in 38.8% simultaneous with using uncertain methods. This finding has been reported in research carried out in other provinces of Iran⁽¹⁵⁾. A national survey of Spain 2003 showed that 12% of women resorted to less effective methods, including withdrawal and natural methods (9.1 , 2.8 respectively)⁽²⁴⁾. In same of studies the most prevalence apply to less effective contraceptive methods or to use contraception inadequately has been observed at two ends of the childbearing period (adolescents 15-24 and women aged 40-49), which are probably greater at risk of unwanted pregnancy⁽²⁵⁾. The first phase of this research (a case-control study) showed that using uncertain methods significantly increases the chance of unintended pregnancy ($PV < 0.05$) with (AOR=14.5)⁽²⁰⁾. This finding has been supported by different research^(26, 27).

Also 7.1% of case group had previously experienced unintended pregnancy at least once.

This index has been 7.6% in a study conducted by Shahbazi and colleagues in Semnan, and 11.2% in a study by Kahnamooye Agdam and colleagues^(14, 22). This finding reveals the necessity of especial consultation on family planning for these ladies in the ending months of pregnancy and during the use of contraception methods in the form of holding reeducation classes or face to face training.

In this study 38% of unintended pregnancies have occurred in the first year of using contraceptive method and one third of cases have nearly occurred in the first trimester of pregnancy. This finding has also been confirmed by some other research^(13, 16, 19). This finding reveals the necessity of following up contraception methods users, repeating of educational subjects and assessing their knowledge regarding performance of necessary actions after beginning and during the use of any contraception method separately. Especially in users of OCP, items such as time of beginning, manner of using, and observing intervals, continuation, and forgetting to take OCP are particularly important⁽¹⁷⁾. Health and family planning personnel at urban health centers in the province must pay special attention to giving training on how to use emergency methods (It is a woman's last chance to prevent unintended pregnancy)⁽¹⁷⁾. and making the pills available not only to users of OCPs, but to users of uncertain methods, condom and etc. In this research the incidence rate of unintended pregnancy was 13% simultaneous with using of contraception methods, while in case of correct use, the efficacy of certain methods are higher than 97%, therefore it seems in case of a study on the index in all women eligible for pregnancy, the rate will be much higher than the above mentioned rate.

In a part of the samples of this research, including urban population of some of the newly established cities in the province, which have been receiving healthcare from rural health workers actively during one to three recent years, incidence rate of unintended pregnancy was calculated in referring women to urban health

centers in these cities that the index was less than 5%. This finding reveals admirable efforts of assistant-health workers and their subsequent follow up in providing active healthcare in population of rural areas. Therefore, because of confounding the results of the research (underestimation of the index) the populations of above mentioned cities were excluded from the samples in the study. This research was carried out based on the reports recorded in the household recorders by the participants in the research. Therefore, it is possible that there will be some difficulties caused by self-reporting, either regarding intended or unintended pregnancy, or regarding the method used and the manner of using the method.

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