

# Comparison of the Prevalence and the Causes of Unwanted Pregnancy in Women Under 35 Versus Over 35 Years

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## Abstract

**Objective:** The aim of this study is to compare the incidence of unwanted pregnancies in women under 35 and those over 35 years, compare the results with the previous data, and also to determine the causes of unwanted pregnancies in these women

**Materials and methods:** This cross-sectional study (descriptive - analysis) is performed on 400 pregnant women who had referred to the laboratories of Shiraz. Ten laboratories were randomly selected from different parts of Shiraz. The subjects were interviewed during the period of three months they referred for the result of their pregnancy test. Questionnaire included demographic information, how to use the methods of contraception, how to treat women with unwanted pregnancies, and the history of pregnancy. The chi-square tests, t-test, and logistic regression were utilized in order to compare two groups of women under 35 and over 35 and also to determine the factors related to unwanted pregnancies.

**Results:** In this study, the prevalence of unwanted pregnancies in women under study was 14.7%. The incidence of pregnancy in women under 35 and those over 35 was 13.3% and 33.3%, respectively. The difference between the groups was found to be statistically significant ( $p=0.01$ ).

**Conclusion:** the percentage of unwanted pregnancies has reduced in Shiraz and this is indicative of the success of family planning. However the percentage of unwanted pregnancies in women over 35 is still high. Due to the fact that these women use unreliable methods training courses should be planned for them.

**Keywords:** Unwanted pregnancy, women over 35, Laboratory

## Introduction

Unwanted pregnancy is one of the major problems which can endanger the health of both the mother and the child and impose large costs on health systems (1). According to the research, approximately one third of pregnancies worldwide are unintended 95% of which occur in developing countries, and about 1% of these women lose their lives due to the unwanted pregnancies (2). Unwanted pregnancies are referred

to the pregnancies that couples have not planned for. A great number of women who are faced with unwanted pregnancies show improper behaviors. Many women become pregnant unintentionally when the behaviors are wrong. They care less for themselves, and probably take steps toward abortion (3). Unwanted pregnancies make women vulnerable to emotional stressors; therefore, these women may experience a high degree of anxiety and depression. Also women who have unwanted pregnancies have shown to suffer more from depression compared to those with planned pregnancies (4). Studies have shown that mothers who have unwanted pregnancies give birth to babies with low weight (5). Family planning is important in order to avoid unwanted pregnancies. Prevent of unwanted pregnancies results

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in the reduction of deaths in young mothers as well as the decrease in the waste of time and costs in hospitals (6). Studies have shown that the highest percentage of lack of contraception use occurs in women of 35 and older, which leads to unwanted pregnancy and finally to abortion (7). Women under 35 use the contraceptives two times more than those over 35 (8). A research conducted in different parts of Iran related the prevalence of unintended pregnancies from 38 to 42% (9). One of the important indicators of quality of family planning services is the prevalence of unwanted pregnancy which endangers the health of women in physical, mental and social aspects (10). The present study aims to compare the incidence of unwanted pregnancies in women under 35 to those over 35, compare the results with the previous data, and also to determine the cause of unwanted pregnancies in these women. Eventually, finding a solution for preventing unwanted pregnancies is essential in order to promote the health of mothers and children.

## Methods & Materials

This is a cross-sectional study (descriptive analysis) which was conducted on women who had referred to laboratories of Shiraz for pregnancy test. Given the prevalence of unwanted pregnancy, which makes up about 40% of all pregnancies, a sample size of 400 subjects was selected. Ten laboratories were randomly selected from different parts of Shiraz. The subjects were interviewed during the period of three months they referred for the result of their pregnancy test. Then, a questionnaire was produced which included demographic information, how to use methods of contraception, women's attitude toward unwanted pregnancy, and the history of gravity. The women who had referred for the test were interviewed in the laboratory. Validity of the questionnaire was determined by health education professionals. Moreover, the reliability of the questionnaire was determined by doing a pilot study and Cronbach's alpha test with ( $\alpha = 0.7$ ). The gathered data was entered to the SPSS statistical software (version 17). The chi-square tests, t-test, and logistic regression were utilized in order to compare two groups of women under 35 and over 35 and also to determine the factors related to unwanted pregnancies.

## Results

The mean age of women under study was 28 years. In this study, the prevalence of unwanted pregnancies in women under study was 14.7%. The prevalence of

**Table 1:** Frequency of unwanted pregnancies in women under 35 and over 35 who had referred to laboratories in Shiraz 2011

| Pregnancy status age | Wanted         | Unwanted      | Total | P.V  |
|----------------------|----------------|---------------|-------|------|
| Under35              | 318<br>(86.7%) | 49<br>(13.3%) | 367   | 0.01 |
| Over3                | 22<br>(66.7%)  | 11<br>(33.3%) | 33    |      |
| Total                | 340            | 60            | 400   |      |

unwanted pregnancies was 13% and 33.3% in women under 35 and those over 35 respectively. The difference between the two groups was statistically significant ( $P = 0.01$ ) [Table 1]. All these women had experienced unwanted first pregnancies.

The prevalence of unwanted pregnancies was 5% in women with a child, 10% in women who had not have any children, 48.6% in women with 2 children, 35.3% in women with 3 children, and 20% in women with 4 children. A significant relationship was found between education and unwanted pregnancies among women ( $P = 0.01$ ). In a way that the difference between the university education and other levels of education was significant ( $P = 0.000$ ), while that of the guidance school and the high school was not significant. A significant correlation was also observed between the husbands' age and the unwanted pregnancies ( $P = 0.01$ ). Women's studies and gender of the children showed no association with unwanted pregnancies. Women with unwanted pregnancies 51.8% of the natural method, 25% oral contraceptive, 13.5% condoms, 1.6% used vasectomy and 8.1% did not use any particular methods because of breastfeeding. 50% of those who had become pregnant had taken oral contraceptives accompanied by other drugs such as sedatives or corticosteroid drugs, and others had not used the pill regularly. Eighty percent of those who had used condoms had become pregnant in the first two months of using them. Besides, the woman had become pregnant although her husband had performed Vasectomy. This had happened since they had intercourse before the sperm count test. 93% of these women had received pills and condoms from health centers.

89.2% of women with unwanted pregnancies had decided to keep their children, while 10.8% had an abortion decision. 87% of husbands also considered the pregnancies as unplanned. The reasons of unwanted pregnancies in women under study, according to their statements, are listed in Table 2.

70% of women were completely familiar with all

**Table 2:** frequency of reasons for unwanted pregnancies in pregnant women who had referred to Shiraz Labs

| Causes of unwanted pregnancy           | number    | percent    |
|--|-----------|------------|
| Number of children                     | 32        | 53.3       |
| Mother age was high                    | 8         | 13.3       |
| Short interval from previous pregnancy | 8         | 13.3       |
| Mother age was low                     | 5         | 8.4        |
| Economic status                        | 5         | 8.4        |
| No reason                              | 2         | 3.3        |
| <b>Total</b>                           | <b>60</b> | <b>100</b> |

methods of contraception, while 30% were only somewhat familiar. So, 98.8% of women knew tablets, 95.2% condoms, 85.7% IUD, 78.2% DMPA, 73% TL, 69.4% vasectomy, 38.5% capsules. No difference was found between two groups of women with unwanted pregnancies and planned pregnancies with regarding their familiarity with contraceptives.

## Conclusion

The present study revealed that the percentage of unwanted pregnancies has reduced in Shiraz; in a way that it has reached from 40% in 1376 to 14.7% (9). 33.3% of women over 35 had unwanted pregnancies, 66.7% of whom did not use reliable contraceptives. Several studies have shown that the incidence of pregnancy in Tehran was 31% and 26.1% in 1381 and 1380, respectively. Moreover, the incidence of pregnancy in 1386 was 37% and 27% in Mashhad and Arak, respectively (10,11,12,13). In a study which was conducted in Mashhad, economic status, the number of children, and the age difference between the children were considered as the major causes of unwanted pregnancies. Sixty two percent of these women used natural methods. Several studies revealed that 56.1% of women in Ark as well as 60.4% of women in Yazd with unwanted pregnancies had been uncertain about the methods they used (11, 12, 13). In this study, the highest prevalence of unwanted pregnancies was among women over 35, and the natural method was mostly used among these women. Studies which were conducted in Arak and Shahrood revealed a significant relationship between mother's age, education, as well as the number of children and unintended pregnancies (13,14). Results of a study conducted in 1375 indicated that the literacy of young women and their spouses, children, girls, and boys is quite effective on the number of unwanted pregnancies (15). These results are similar

to the results obtained in this study. A study which was conducted on 40-50 years old women in Spain showed that 32% of these women did not use reliable contraceptives (16). In Ethiopia, 76.2% of women with unwanted pregnancies did not using safe contraceptive methods (17). Studies in America have also shown that about 10% of women over 35 did not use any kinds of contraception (18). A study which was conducted in Niger showed that 22% of women who had unwanted pregnancies attempted to perform abortion. In this study, among children of low, the high cost of keeping children have been reported as the major causes of unwanted pregnancies (19). The study was conducted in Norway has shown that awareness and knowledge of contraceptive methods in women was good. Moreover they were most familiar with oral contraceptives. But they did not use contraceptive methods consistently (20). In the present study, the women were most familiar with oral contraceptives. In addition, they had sufficient knowledge about various methods. Fortunately the incidence of unintended pregnancy in Shiraz has declined significantly compared to the past, which reflects the success of family planning. However, due to the high incidence of unintended pregnancy in women over 35 years, not referring to health centers, and the lack of reliable methods of contraception in this group, more attention and care as well as higher education is necessary.

Availability of suitable methods as well as the mothers' education, counseling, and training on the proper use of contraceptive methods, particularly permanent contraception, are also of great importance.

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## References

1. Akbarifard M, Ghorbani R, Shahbazi A. A survey on the prevalence of unwanted pregnancy and some related factors in pregnant women who referred to the medical laboratories in Semnan. *Koomesh, Journal of Semnan University of medical Sciences* 2006; 7:133-7.
2. Bashiri Jafar, NehanMoghadam N, Tabraee Y.Amani F. Application of Logistic Regression Model in Surveying Effective Causes of Unwanted Pregnancy. *Journal of Qom University of Medical Sciences* 2010; 4: 32-6.

3. Dyrekvand A, Jaafarpoor M. Prevalence of Unwanted Pregnancies and related Factors in Women Referred to the Maternity Hospital of Darreshahr 2006. *Dena Quarterly Journal of Yasuj Faculty of Nursing & Midwifery* 2007; 2: 19-26.
4. Hosseini Shahidi L, Moghimian M, Tavakkoli Zadeh J. The comparison of depression in wanted and unwanted pregnancies. *Ofoh-e-danesh, Journal of Gonabad University of Medical Sciences And Health Services* 2002; 8: 90-5.
5. Hoseini SM, GHavami B, Salim Zadeh , Eftekhar Ardebili H. Relationship of Low birth weight and unwanted pregnancy. *Journal of School of Public Health and Institute of Public Health Researches* 2009; 7: 11-8.
6. Sanaie Nasab H, Rashidi Jahan H, Tavakoli R, Tavakoli HR, Amin Shoravi F. Correlates of Unwanted Pregnancy among Pregnant Women attending Medical and Health Centers in Semnan, Iran. *The Journal of Faculty of Nursing & Midwifery* 2009; 15: 81-6.
7. Upson K, Reed SD, Prager SW, Schiff MA. Factors associated with contraceptive nonuse among US women ages 35-44 years at risk of unwanted pregnancy. *Contraception* 2010; 81:427-34.
8. Arab M. Age and number of children in tubal ligation patients in Hamadan province, 1991-95. *Scientific Journal of Hamadan University of Medical Sciences & Health Services* 1998; 6: 25-9.
9. Jahanfar S, Ramazani Tehrani F, Sadat Hashemi M. The prevalence of unwanted pregnancy and its effective factors in 10 cities Iran, 2000. *The Journal of Tehran Faculty of Medicine* 2002; 60: 334-40.
10. Rezaipour A, Taghizadeh Z, Faghizadeh S, Bazzazian Sh. Prevalence of unintended pregnancy and pertinent factors in women with positive pregnancy test. *The Journal of Faculty of Nursing & Midwifery* 2003; 9: 24-32.
11. Fallah Zadeh H, Mazloomi SS. Survey on unplanned pregnancies in pregnant women in Yazd. *Journal of Shahid Sadoughi University of Medical Sciences And Health Services* 2002; 9: 98-102.
12. Asadi Y, Meshkat M, Talaei B. Determination prevalence And Causes of unwanted Pregnancy in Mashhad. *Med Sci J Islamic Azad University of Mashhad* 2007; 3: 91-5.
13. Mohammad beygi A, Mohammad Salehi N, Bayati A. Prevalence of unintended pregnancy and its related factors in Arak 2007. *Koomesh, Journal of Semnan University of Medical Sciences* 2009; 10: 201-6.
14. Poorhidary M, Sozany A, Shamaian N. Prevalence of unwanted pregnancies and their correlates in pregnant woman in Shahrood, Iran. *Payesh, Journal of The Iranian Institute For Health Sciences Research* 2007; 6: 63-70.
15. Khalaj Abadi Farahani F, Sadat Hashemi SM. Factors influencing unwanted pregnancies in Tehran. *Hakim Research Journal* 2002; 5: 201-6.
16. Lete I, Bermejo R, Parrilla JJ, Dueñas JL, Coll C, Serrano I, et al. Use of contraceptive methods and risk of unwanted pregnancy in Spanish women aged 40-50 years: results of a survey conducted in Spain. *Eur J Contracept Reprod Health Care* 2007; 12:46-50.
17. Gessesew A. Abortion and unwanted pregnancy in Adigrat Zonal Hospital, Tigray, north Ethiopia. *Afr J Reprod Health* 2010; 14:183-8.
18. Upson K, Reed SD, Prager SW, Schiff MA. Factors associated with contraceptive nonuse among US women ages 35-44 years at risk of unwanted pregnancy. *Contraception* 2010; 81:427-34.
19. Oye-Adeniran BA, Adewole IF, Umoh AV, Ekanem EE, Gbadegehin A, Iwere N. Community based survey of unwanted pregnancy in southwestern Nigeria. *Afr J Reprod Health* 2004; 8:103-15.
20. Sundby J, Svanemyr J, Maehre T. Avoiding unwanted pregnancy, the role of communication, information and knowledge in the use of contraception among young Norwegian women. *Patient Educ Couns* 1999; 38:9-11.