

Unwanted pregnancy and traditional self-induced abortion methods known among women aged 15 to 49

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Abstract

Objective: To determine the traditional methods known and used to terminate an unwanted pregnancy and the fertility characteristics of married women.

Methods: The descriptive cross-sectional study was conducted in Turkey at Afyonkarahisar Zübeyde Hanım Child and Maternity Hospital's outpatient clinic between December 27, 2010 and January 7, 2011, and comprised married women aged 17 to 49 who presented for an examination. Questions related to socio-demographic and fertility characteristics as well as known and used traditional abortion methods were included in the questionnaire which was administered through face-to-face interviews. SPSS 18.0 was used for statistical analysis.

Results: The median age of the 600 women in the study was 29.5 (range: 17-49) years. Overall, 134 (22.3%) women had experienced an unwanted pregnancy. In 53 (39.6%) cases, the unwanted pregnancy had occurred between the ages of 30 and 39, and 116(86.6%) women had married when they were between 15 and 24 ($p < 0.008$) years old. Pregnancy had been concluded normally in 78(58.2%) women with an unwanted pregnancy and 34(35.8%) preferred the withdrawal method for contraception. Traditional abortion methods were known to 413(68.8%) women, but only 8(1.3%) had used any of them. The harms of using a traditional abortion method were known to 464(77.3%) women.

Conclusion: Very few women used traditional abortion methods to terminate pregnancy. Knowing the characteristics of women and their need for family planning should be the first priority for the prevention of unwanted pregnancies.

Keywords: Induced abortion, Traditional methods, Female health. (JPMA 65: 452; 2015)

Introduction

Unwanted pregnancies have been terminated in various ways since ancient times.¹ The traditional methods used vary according to the community's beliefs, traditions, values and culture, and have existed as information specific to women, being transferred from generation to generation.² Women who cannot benefit from health services or cannot or do not want to go to a physician due to financial problems or other reasons, and especially those that live in rural areas, are known to use traditional methods to terminate unwanted pregnancies.^{1,3} Traditional abortion methods are defined as methods with unproven scientific validity and suspect effectiveness, based on the distortion of the foetus through toxic factors or trauma, which the mother knowingly uses to end the life of the foetus despite the lack of any health problems that could affect the birth.⁴ They are the cause of most unsafe induced abortions that may result in the mother's death.⁴

About 43.8 million (21%) pregnancies end with "induced abortion" every year globally, according to the estimates of the World Health Organisation (WHO). Of these abortions, 21.6 million are performed in unsafe conditions and by unskilled service providers, and about 47,000 women die as a result.⁵ Women in the majority of developing countries (56%) are forced to use the services of uneducated individuals or try to end their pregnancies through unsafe and dangerous ways due to laws prohibiting safe abortion.⁶ Maternal mortality levels are low in regions where the abortion laws are liberal and women can easily access contraceptive services and devices.⁶

More than 40 years have passed for women in Turkey to progress to a period where induced abortions are performed at healthcare institutions on a legal basis compared to the past when unwanted pregnancies were terminated by women themselves or under unsanitary conditions.¹ According to the Turkey Demographic and Health Survey (TDHS), the percentage of women who underwent induced abortion at least once was 10% in 1968 and 22% in 2008, while the number of abortions performed voluntarily was 17 per 100 pregnancies in 1968, decreasing to 10 in 2008.^{1,7} The legal access to

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induced abortion services since 1983, the decreased unmet family planning need and the use of less traumatic methods have together decreased abortion-related complications and maternal deaths, with only 2% of maternal deaths being caused by abortions now.^{1,8}

Women often undergo abortion to terminate unwanted pregnancies or use unhealthy and primitive methods, losing their health, fertility or life.¹ The problem of induced abortions requires multifactorial evaluation as it is both a female health and social problem, and the prevalence and determinants need to be defined.

The current study was planned to investigate the fertility features, unwanted pregnancy rates, the knowledge and application of traditional methods to terminate an unwanted pregnancy, the reasons these methods were used, and awareness regarding the harm of these methods in married women.

Subjects and Methods

The descriptive cross-sectional study was conducted on 600 women aged 17 to 49 years who presented at Afyonkarahisar Zübeyde Hanim Child and Maternity Hospital's outpatient clinic between December 27, 2010, and January 7, 2011, for an examination and agreed to participate in the study. After permission from the institutional review committee, data was collected using a survey form developed following a literature survey.⁹⁻¹¹ The form consisted of questions to determine the socio-demographic characteristics of the participants such as age, educational status, social security, occupation and income level, and also the family planning history, fertility characteristics, and known and used traditional methods of self-induced abortion. Single women, women aged less than 15 or more than 49 years, and women whose husbands did not provide permission were excluded. All married women aged 15-49 years who volunteered for the study were included. However, there were only a few women aged less than 17 years during the study period and their husbands did not provide permission, so all of them were excluded. Information was provided to all the participating volunteers about the aim of the study and their written consent was obtained. The survey was completed by the investigators through a face-to-face interview. Descriptive statistics were computed and included the frequency distribution for categorical variables (gender, education level, insurance status), and the mean and standard deviation for continuous variables (age, number of pregnancies, number of abortions). Comparisons between the women with and without a history of unwanted pregnancy were performed with chi-square test. The data was evaluated with SPSS 18.0 and

the level of significance was set at $p < 0.05$.

Results

The median age of the 600 women in the study was 29.5 (range: 17-49) years. The median age of marriage among the women was 18 (range: 12-39) years, and the median age of first pregnancy was 19 (range: 13-38) years. In terms of education, 372(62%) were primary school graduates, 571(95.2%) were housewives, 50(8.3%) had no social security, and 280(46.7%) lived in the city centre. The age at first marriage for 386(64.3%) women was 12-19

Table-1: Socio-demographic characteristics.

Characteristics	n	%
Age at time of interview		
17-19 years	29	4.8
20-24 years	122	20.3
25-29 years	149	24.8
30-34 years	122	20.3
35-39 years	84	14.0
40-44 years	41	6.8
45-49 years	53	8.8
Age at first marriage		
12-19 years	386	64.3
20-24 years	175	29.2
25-29 years	30	5.0
30-39 years	9	1.5
Age at first pregnancy		
13-19 years	317	53.8
20-24 years	216	36.7
25-29 years	45	7.6
30-39 years	11	1.5
Education		
Illiterate	39	6.5
Primary school	372	62.0
Secondary school	94	15.7
High/University	95	15.8
Insurance Status		
Uninsured	50	8.3
Insured	550	91.7
Marital status		
Married	588	98.0
Divorced/widow	12	2.0
Occupation		
Housewife	571	95.1
Working	29	4.9
Residential		
Urban	280	46.7
Rural	320	53.3
Income		
0-499 TL	96	16.0
500-999 TL	345	57.5
1000-1499 TL	95	15.8
1500 and over TL	64	10.7

TL: Turkish Lira. (1 USD = 2.57 TRY)

Table-2: Traditional methods of abortion known to women (n=413).

The Known Traditional Abortion Methods*	n	%
Lifting heavy things	211	35.2
Taking medication	192	32.0
Jumping from a high place	126	21.0
Knitting needle/needle/chicken feather/ matchstick/large nails/metal coat-hanger/ broomstraw/crochet tip insertion into the uterus	110	18.3
Putting a heavy/ hot object on the belly/ squeezing of the abdomen with a cord	47	8.1
Consumption of the infusion of onion peel/ hibiscus seed/black cumin/parsley stems/harmala seeds/thyme herb/thornbush	43	7.5
Insertion of mallow root/eggplant root/ soap/egg shell/cotton with olive oil/ parsley flakes/baking soda into the cervix	40	7.0
Consumption of henna infusion/poppy powder/ lime/alcohol/ice drinking	9	1.7

*The women knew more than one traditional method.

years, while age at first pregnancy for 317(53.8%) of the 589(98.1%) women who had experienced pregnancy was 13-19 years (Table-1). The mean number of children was 2.4 ± 1.3 and the number was 1.66 for women with an education level of high school or more. The mean number of pregnancies was 2.9 ± 1.6 , the mean number of dilatation and curettage 1.2 ± 0.5 , and the mean number of spontaneous miscarriages was 1.3 ± 0.8 . There was a history of unwanted pregnancy in 134(22.3%), spontaneous miscarriage in 110(18.3%), curettage in 97(16.2%) and stillbirth in 32(5.3%). The educational level was primary school graduate for 110(82.1%) of the women who had a history of unwanted pregnancy. No significant difference was found when the women with and without a history of unwanted pregnancy were compared in terms of educational level, social security, income level, and place of residence, but a significant difference was present for woman's age and the age at marriage. The unwanted pregnancy had most commonly occurred in 53(39.6%) women between the ages of 30 and 39 ($p < 0.05$) and the age at marriage was 15 to 19 in 82(61.2%) of this group ($p < 0.008$). A contraceptive method had been used by 95(70.9%) women before the unwanted pregnancy, with 34(35.8%) preferring the traditional method of withdrawal, while 39(29.1%) did not use any method and the reasons were side effects and lack of knowledge in 27(71%) of this group. Unwanted pregnancy had been concluded by voluntary abortion in 5(3.7%), curettage in 51(38.1%) and birth in 78(58.2%) women. The factors effective in an unwanted pregnancy ending in birth were women seeing abortion as a sin, and pressure from the family. Besides, 417(99.2%) subjects did

not see induced abortion as a contraceptive method.

Overall, 413(68.8%) women knew at least one traditional abortion method (Table-2), but only 8(1.3%) had ever used one of these methods, and 464(77.3%) knew the harms of using traditional abortion methods. The 8(1.3%) women who had experienced induced abortion said they had used more than one traditional method. The methods used were taking drugs ($n=5$;62.5%), lifting heavy things ($n=2$;25%), putting a heavy object on the belly ($n=2$;25%), jumping from a high place ($n=1$;12.5%), inserting a needle into the uterus ($n=1$;12.5%), boiling and drinking cumin ($n=1$;12.5%), and placing cotton with olive oil to the cervical opening ($n=1$;12.5%). The harms of the traditional methods known to the subjects were bleeding 164(27.3%), death 102(17%), prolapse-rupture of the uterus 98(16.3%), becoming infertile 64(10.6%), giving birth to a disabled child 62(10.3%), and pain 46(7.6%).

Discussion

Unwanted pregnancies are important public health problems that threaten reproductive health. Studies have revealed that some groups are under more risk regarding unwanted pregnancies. Eggleston has reported that unwanted pregnancies are more common in women living in rural areas, have low economic or educational status, are younger in age, and have more children.¹² In Turkey, Sevindik et al. reported the mean age at marriage of the women as 19.5 ± 0.2 years and the number of children as 2.6 ± 1.6 .¹³ The mean age at first marriage was 23.2 years, according to the Turkey Statistical Institute 2010 Marriage and Divorce Statistics.¹⁴ According to TDHS,⁷ the median age at the first marriage of women was 20.8 years and the mean number of children per woman was 2.16, but only 1.53 among women with high school or higher education. Communities with a low age at first marriage have children at an early age and a higher number of children. It has been reported that the rate of fertility in Turkey has decreased approximately by half in the last 30 years (1978-2008 period) and the age pattern of fertility has changed due to women's postponement of childbearing to later ages, although they still tend to have children at an early age with 70% of births occurring before the age of 30.⁷ The age at first marriage of women in our study was lower than in other studies due to regional differences. The age at marriage was 15 to 19 in 60% of our subjects and 59.7% lived in rural areas. The educational level was literate only or primary school in 68.5%. Similar to the results reported by TDHS 2008, an increased level of education decreased the number of births per woman and about half of the women were aged below 29 years.

Studies conducted in different regions of Turkey reported

spontaneous abortion rate as 31.5%, 20.6%, and 31.1%,^{3,13,15} the induced abortion rate as 6% and 18.2%, and the rate of stillbirth as 26.6% and 16.3%,^{13,15} respectively. According to the TDHS 2008 data, the spontaneous abortion rate in Turkey was 20.4%, the induced abortion rate 22% and the stillbirth rate 4%. Many factors such as the socio-cultural level, the level of education of women, the various study regions, reproductive health training and access to counselling services seem to play a role in the varying study results. Bostanci reported that 50% of women who had unwanted pregnancies and later underwent induced abortion had been using the withdrawal method and there was no woman not using any method.¹⁶ According to the 2008 data,⁷ 33.7% women did not use any method before a pregnancy that ended with an abortion, while the withdrawal method was used by 39% of those who used any method. The study results show that not using any contraceptive method, use of ineffective methods or using methods incorrectly play a role in pregnancies ending with induced abortions in Turkey.

The TDHS 2003-2008 results have shown the induced abortion rate to increase with age, especially over the age of 30. The age at first marriage is considered to have an important effect on births as women who are married at an early age have a longer period when they can become pregnant and the possibility of giving birth is increased throughout life.⁷ Our study results are similar to the TDHS results in terms of the age at marriage of the women who experienced unwanted pregnancies being in the adolescence period, unwanted pregnancies most commonly being seen in the 30-39 age range, and these pregnancies most commonly ending with a normal birth. Despite the rapid advancement of modern medicine, traditional healthcare applications are still used for unwanted pregnancies. Chinese Emperor ShenNung had described the use of mercury for induced abortion approximately 5000 years ago. More than 100 methods have been defined for induced abortion.⁹ These unsafe methods can be classified as follows: oral and injectable medicines, vaginal preparations, intrauterine foreign bodies and voluntary trauma to the abdominal region.^{9,12,17} Other methods are using detergents, solvents and bleach, tea from local plants, and animal products as seen in developing countries. Women usually use multiple methods and prefer the more invasive ones to induce abortion by themselves. These primitive methods used to induce unsafe abortions actually show how desperate the women are. Women present to hospitals with high rates of bleeding, sepsis, peritonitis and trauma of the cervix, vagina, uterus and abdominal organs following abortion.¹⁷ Sevindik et al. reported that

93% of women knew any traditional abortion method and 19.7% had used one of these methods, while the best known and the most commonly applied methods were lifting heavy things or flour bags, jumping from a high place, carpet shaking and medication use.¹³

Another study on 399 women in Turkey reported that 34.7% women with unwanted pregnancies had used an alternative method to induce an abortion at least once. The methods included boiling and drinking the water of *Artemisia absinthium* L, *Alchemilla erythropoda* Juz. or *Achillea kotschyi* Boiss, using goose-quill or lemon rind as suppositories, boiling onion skin and putting it on the cervical entry, jumping from a high place and lifting heavy items.¹⁸ A study conducted on 381 women who presented with unsafe abortion complications in India reported that 53% had miscarriage at home and 85% of them had used a medication, 8% used ayurvedic medicine, 7% had used a mixture prepared at home (coffee, papaya, pepper), and 2% had inserted a metal rod or herbs into the vagina; the most common complications were abdominal pain, bleeding, cramping, fever, and chills.¹⁹ R Thapa et al. reported that women place various materials such as quinine, misoprostol, livestock droppings, detergent, and herbal medicines into the uterus per vagina to induce an unsafe abortion and can encounter severe complications such as bleeding, infection, uterine perforation, and peritonitis.²⁰ A study conducted on 9,493 women in the United States reported the rate of women who experienced induced abortions with misoprostol as 1.2% and those who used other substances (such as vitamin C, cohosh and pennyroyal plant) as 1.4%.²¹ Induced abortions are an indicator of unmet needs in developing countries and they are reported to usually increase the mortality and morbidity of the mother, especially in countries where legal regulations are not established.^{17,22}

Conclusion

There was a 22.3% rate for unwanted pregnancies and only 1.3% women participating in the study were found to have used a traditional miscarriage method to terminate the unwanted pregnancy even though the majority knew the harms of the traditional methods. Fulfilling unmet need for modern contraception is an effective way to prevent unwanted pregnancies, abortions and unplanned births. Healthcare staff has a responsibility to ensure that family planning and consultancy services are adequately delivered and maintained for women at primary care level.

References

1. Tezcan S, Ergocmen BA. Induced abortions in Turkey. *Turkish J Public Health* 2012; 10: 36-42.
2. Gurgan M. Methods for terminating pregnancy, practiced by

- ancient Uighur Turks an present day anatolian people. In: Erdemir AD, Oncel O, kucukdag Y, Okka B editors. 1st International congress on the Turkish history of medicine, 10th National Congress on the Turkish history of medicine proceedings books, 2008; 1: 980-4.
3. Cakirer N, Caliskan ZI. Traditional beliefs and applications about pregnancy, birth and puerperium in Agilli village of Nevsehir. TAF Prev Med Bull 2010; 9: 343-8.
 4. Cokar M. Ethical aspects of abortion law in the world and in Turkey [dissertation]. Turkey: Marmara University Institute of Health Sciences, Istanbul 2006.
 5. World Health Organization (WHO), Unsafe abortion: global and regional estimates of the incidence of unsafe abortion and associated mortality in 2008. 6th ed. Geneva: WHO, 2011.
 6. Gokgol T. A global perspective on abortion: Laws and experiences. Turkish J Public Health 2012; 10: 1-9.
 7. Turkey Demographic and Health Survey 2008. Hacettepe University Institute of Population Studies, Ministry of Health General Directorate of Mother and Child Health and Family Planning, State Planning Organization and TUBITAK. Ankara, Turkey; 2008
 8. Akin A. Future perspectives on induced abortion and reproductive health services in light of the changing population and health policies in Turkey, Turkish J Public Health 2012; 10 :43-60.
 9. Alan Guttmacher Institute. Sharing responsibilities: women, society and abortion worldwide. New York: The Alan Guttmacher Institute, 1999.
 10. O'Reilly M. Careful counsel: Management of unintended pregnancy. J Am Acad Nurse Pract 2009; 21: 596-602
 11. Hacettepe University Institute of Population Studies, ICON-INSTITUT Public Sector GmbH and BNB Consulting. National Maternal Mortality Study, 2005. Ministry of Health, General Directorate of Mother and Child Health and Family Planning and Delegation of European Commission to Turkey, Ankara; 2006
 12. Eggleston E. Determinants of unintended pregnancy among women in Ecuador. Int Fam Planning Perspectives 1999; 25: 27-33.
 13. Sevindik FN, Acik Y, Gulbayrak C, Akgun D. Traditional methods which are known and applied in order to achieve voluntary abortion by married women living in Elazig. TAF Prev Med Bull 2007; 6: 321-4.
 14. Turkish Statistical Institute Marriage and Divorce Statistics 2010. T.C. Ministry of Interior, Turkey Statistical Institute 2011, no: 8534. [online] [cited 2013 August 01]. Available from: URL: <http://www.tuik.gov.tr/PreHaberBultenleri.do?id=8534>.
 15. Yilmaz SD, Ege E, Akin B, Celik C. The reasons of induced abortion and contraceptive preference in 15-49 years women I.U.F.N. Hem. Derg 2010; 18: 156-63.
 16. Bostanci MS. Sources of information related to contraceptive methods and their relationship with unwanted pregnancies in women in a district of Eastern Anatolia. Dicle Med J 2011; 38: 202-7.
 17. Grimes DA, Benson J, Singh S, Romero M, Ganatra B, Okaonofua FE, et al. Unsafe abortion: the preventable pandemic. Lancet 2006; 368: 1908-19.
 18. Gücük S, Alkan S, Arica S, Cansever Z. Evaluation of the Factors Concerning the Unexpected Pregnancy of Women who Applied to the Mother and Child Care and Family Planning Center of Van Province. TAF Prev Med Bull 2012; 11: 29-34.
 19. Banerjee SK, Andersen K. Exploring the pathways of unsafe abortion in Madhya Pradesh, India. Glob Public Health 2012; 7: 882-96.
 20. Thapa SR, Rimal D, Preston J. Self induced abortion with instrumentation. Aust Fam Physicians 2006; 35: 697-8.
 21. Jones RK. How commonly do US abortion patients report attempts to self-induce? Am J Obstet Gynecol 2011; 204: 23.e1-4.
 22. Ozturk H, Okcay H. Unwanted pregnancies and voluntary abortions. Aileve Toplum Derg 2003; 2: 63-70.
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