

Educational Status Number of Previous Contraceptive Failure Do not Effect the Women's Contraceptive Preference After Surgical Abortion in Turkey

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OBJECTIVE: The aim of this study was to investigate the determinants of the contraceptive preference of couples after surgical abortion result of contraceptive failure or no contraception.

STUDY DESIGN: Study population consisted of 302 women who admitted to Dr. Sami Ulus Maternity and Women's Health Teaching and Research Hospital family planning unit and underwent surgical abortion. All pregnancies were in their 5-10 th weeks of gestation. Gravida, parity, number of previous surgical abortions, living children number, last pregnancy status with current contraceptive method were recorded.

RESULTS: Mean age, gravida, parity, number of previous surgical abortions and living children were 31.05 ± 6.52 (19-46 years), 4.30 ± 1.83 (1-11), 2.33 ± 1.32 (0-7), 0.96 ± 1.05 (0-5), 2.28 ± 1.29 (0-7) respectively. There were 183 (60,6%) women with previous surgical abortions, mean number of surgical abortions were 1.59 ± 0.6 . Among these patients there were 82 (45%) patients using no contraceptive method and 55 (30%) women were using coitus interruptus. Condoms were being used only by 29 (16%) women. Oral contraceptives (OCS) were being used in 11 (6%) women. No association was observed between condom or OCS use and educational status ($p=0.786$) in these patients. Condom or OCS users a little bit younger but not reached statistical significance ($p=0.071$). Women with different contraceptive use were similar in terms of gravida, parity, interval from previous pregnancy ($p=0.423$, $p=0.402$, 0.467 respectively). No association was obtained between number of previous surgical abortion, current contraceptive use ($p=0.386$) and educational status ($p=0.735$).

CONCLUSION: Our study suggests that educational status, number previous contraceptive failure or maternal age does not effect the contraceptive preference after surgical abortion.

Key Words: Educational status, Contraception, Surgical abortion

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Introduction

There are very few studies about determinants of contraceptive method use in the Middle East. In Turkey-a predominantly Muslim nation that is undergoing considerable social change-fertility has declined significantly, men play a major role in contraceptive practice and women's position in society is increasingly contested. These factors make Turkey a particularly interesting country for studies concerning contraceptive method preference.

Women generally favoured coitus interruptus, believing in

its efficacy and safety, and stated that both women and their husbands preferred to use it.¹ It is important to recognise the effects of cultural beliefs on women's contraceptive use. Educational programmes should be individualised to meet the specific needs of women and their partners.² The study conducted in Turkey revealed that, 79.6% of study population were using a contraceptive method (45.1% were using a modern method, 34.5% a traditional method). Coitus interruptus (CI) was the most preferred method (33,7%). Fertility measures of women who had used CI continuously were compared with other women. It was found that most CI users were content with the method.³

The aim of this study was to investigate the determinants of the contraceptive preference of couples after surgical abortion result of contraceptive failure or no contraception.

Material and Method

Turkey is a low-to-middle-income country located at the intersection of southeastern Europe and the Middle East. Its

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population was estimated at 71 million in 2007, with an annual growth rate of 1% and an adult literacy rate of 88% (80% for women).^{4,5} The total fertility rate declined from 4.3 children per woman in 1978 to 2.6 children in 1998;⁶ it fell further to 2.3 children in 2003, as Turkey moved through the middle phase of its fertility transition.⁷ The contraceptive prevalence rate among married women plateaued at 64% between 1988 and 1998 and rose to 71% in 2003. Because male methods account for half of all contraceptive use, it is plausible to assume that a husband's report of method use is at least as reliable as that of his wife. Factors associated with the use of withdrawal, condoms and other methods have been examined.⁸⁻¹¹ Turkish culture and socioeconomic structures remain male dominated. Consequently, many women may still need their husband's approval to use family planning, and husbands' attitudes and intentions may have additional effects on couples' contraceptive practice and fertility.¹²

Study Population

Data for this study come from a community-based, cross sectional survey of women conducted in 2009-2010 in rural area of Ankara in Turkey. Study population was calculated with 95% CI, 80% power, $\pm 2\%$ precision (Epi info). Study population consisted of 302 women who admitted to Dr. Sami Ulus Maternity and Women's Health Teaching and Research Hospital family planning unit and underwent surgical abortion result of contraceptive failure or no contraception. All pregnancies were in their 5-10 th weeks of gestation. Gravida, parity, number of curettage, living children and last pregnancy status with current contraceptive method were recorded. Educational status of women was determined as illiterate, primary, secondary, high school or university graduate. Contraceptive methods were no contraception, coitus interruptus, condom, oral contraceptives, intrauterine device and depo-progesteron. Patients were asked for their last pregnancy status as surgical abortion, vaginal delivery or cesarian section. Interval from last pregnancy was stated as months.

Statistical Analysis

Data was entered to SPSS version 11. Group means were compared by ANOVA. Categorical variables are compared by Chi square test. Correlation analysis was used to show associations.

Result

Mean age, gravida, parity, number of surgical abortions and living children were 31.05 ± 6.52 (19-46 years), 4.30 ± 1.83 (1-11), 2.33 ± 1.32 (0-7), 0.96 ± 1.05 (0-5), 2.28 ± 1.29 (0-7) respectively. There were 183 (60,6%) women with previous surgical abortions, mean number of surgical abortions were 1.59 ± 0.6 . Among these patients there were 82 (45%) patients using no contraceptive method and 55 (30%) women were using coitus interruptus. Condoms were being used only by 29 (16%) women. Oral contraceptives (OCS) were being used in 11 (6%) women. Other 3% of women were using other contraceptives. No association was observed between condom or OCS use in women with education ($p=0.786$) in these patients. Condom or OCS users a little bit younger but not reached statistical significance ($p=0.071$). Women with different contraceptive use were similar in terms of gravida, parity, interval from previous pregnancy ($p=0.423$, $p=0.402$, 0.467 respectively). No association was obtained between number of previous surgical abortion current contraceptive use ($p=0.386$) and educational status ($p=0,735$). Mean age ($p=0.012$), gravida ($p<0.001$), parity ($p<0.001$), number of surgical abortions ($p=0.041$) and living children ($p<0.001$) were significantly different among women with different educational status (table 1). All were highest in illeterate group. Women with different last pregnancy status were significantly different in terms of mean age ($p=0.005$), gravida ($p<0.001$), number of surgical abortions ($p<0.001$) and living children ($p=0.05$), interval from last gestation ($p<0.001$, table 2). Women with different current contraceptive method use were similar according to age, gravida, parity, number of surgical abortions, living children and interval from last gestation ($p>0.005$, table 3).

Table 1: Age, gravida, parity, number of surgical abortions and children, interval from last pregnancy differences among women with different educational status

	Illeterate N:22	Primary N:160	Secondary N:35	High school N:68	University N:17	P
Age	34.2 \pm 7.4	31.6 \pm 6.1	29.2 \pm 6.9	29.6 \pm 6.5	31.4 \pm 7.2	P=0.012
Gravida	6 \pm 2.2	4.8 \pm 1.7	4.02 \pm 1.7	3.2 \pm 1.3	2.7 \pm 1.4	P<0.001
Parity	3.9 \pm 1.9	2.7 \pm 1.2	1.9 \pm 0.9	1.6 \pm 0.9	1.05 \pm 0.9	P<0.001
Surgical Abortion	1.04 \pm 0.9	1.05 \pm 1.1	1.3 \pm 1.2	0.7 \pm 0.8	0.6 \pm 0.7	P=0.041
Children	3.8 \pm 1.9	2.6 \pm 1.1	1.8 \pm 0.9	1.6 \pm 0.9	1.05 \pm 0.9	P<0.001
Interval	60.3 \pm 43.8	48 \pm 45.5	40 \pm 30.5	40.1 \pm 43.3	38.8 \pm 31.3	P=0.323

Table 2: Age, gravida, parity, number of surgical abortions and children, interval from last pregnancy differences among women with different last pregnancy status

	VD N:185	C/S N:54	Surgical Abortion N:63	P
Age	31.4±6.3	29±5.7	32.8±5.9	P=0.05
Gravida	4.2±1.6	3.7±1.2	5.8±1.9	P<0.001
Parity	2.5±1.3	2.1±0.9	2.5±1.3	P=0.137
Surgical Abortion	0.7±0.7	0.6±0.6	2.2±1.2	P<0.001
Children	2.5±1.35	1.9±0.75	2.4±1.3	P=0.05
Interval	53.7±48.6	33.5±31.4	34.6±30.03	P=0.001

VD:Vaginal delivery, C/S:Cesearian section

Table 3: Age, gravida, parity, number of surgical abortions and children, interval from last pregnancy differences among women with different contraceptive use

	No N:142	CI N:85	Condom N:46	OCS	IUD N:16	DP N:8	P N:3
Age	31.2±6.7	32.6±6.04	28.9±5.7	30.3±4.7	29.9±5.2	28.7±4.6	0.07
Gravida	4.3±1.9	4.6±1.7	3.9±1.7	4.6±1.9	3.8±1.3	3.7±1.5	0.423
Parity	2.3±1.4	2.5±1.2	2±1.05	2.8±1.9	2.3±0.9	2.3±1.5	0.402
Surgical Abortion	0.9±1.1	1.1±1.1	0.9±1.03	0.9±0.8	0.5±0.8	0.3±0.6	0.179
Children	2.3±1.4	2.4±1.2	1.9±1.02	2.8±1.9	2.3±0.9	2.3±1.5	0.451
Interval	48.8±45.8	48.6±46.9	35.8±32.6	45.4±34.3	46.8±39.4	28±18.3	0.467

No: No contraception, CI:Coitus interruptus, OCS:Oral contraceptives, IUD:Intrauterine device, DP:Depoprogesteron, Interval:Interval from last pregnancy(months)

Correlations

Age was significantly positive correlated with gravida ($r=0.483$, $p<0.001$), parity ($r=0.463$, $p<0.001$), number of surgical abortions ($r=0.229$, $p<0.001$) and living children ($r=0.464$, $p<0.001$), interval from last pregnancy ($r=0.489$, $p<0.001$) and negatively correlated with educational status ($r=-0.150$, $p=0.009$).

Gravida was positively correlated with surgical abortions ($r=0.667$, $p<0.001$) and negatively correlated with educational status ($r=-0.459$, $p<0.001$).

Educational status was significantly negative correlated with number of surgical abortions ($r=-0.134$, $p=0.02$)

Discussion

In this cross sectional study, educational status, number previous contraceptive failure or age of patient were not found to be significant determinants for more reliable contraceptive method preference. And it is thought to be due to cultural factors in Turkish population. Turkish, low income women do not give up their beliefs about contraception in spite of suffering from failure resulted in surgical abortion. Several studies have been conducted concerning this issue in several different pop-

ulations. Education resistant beliefs of cultural attitudes may be changed with time in Turkey, this should be goal to prevent unintended pregnancies effecting whole woman population health. The World Health Organization estimates that worldwide 211 million women become pregnant each year and that about two-thirds of them deliver live infants. The remaining one-third of pregnancies end in miscarriage, stillbirth or induced abortion. Some 200 million women in developing countries have an unmet need for effective contraception.¹³

Above mentioned conclusion and questions about effect of cultural factors on contraception attitudes have been raised in our minds after we had seen the statistical results. Our expectation about this issue in 2010's Turkey was not like this. Another question that should be answered is, what is the way to overcome cultural beliefs on this issue?

A study conducted in Brazil concluded that socioeconomic characteristics and skin color were not associated with abortion. For women aged 20 to 49 years, marital status and reproductive characteristics, including knowledge of contraceptive methods, were the most frequent risk factors and predictors of induced abortion.¹⁴

However a study conducted in Diyarbakır in Turkey concluded that post-abortion counseling may be an effective tool to increase the usage of contraceptives. Improved and more qualified post-abortion family planning counseling should be an integral part of abortion services. The different conclusion of this study conducted in Turkey was thought to be due to different cultural beliefs or most importantly due to number of living children that is expected to be higher in Diyarbakır.¹⁵

Cultural and population beliefs should be the targets to intervene. Health providers should address misunderstandings that exist about contraceptive methods coming from cultural beliefs.¹⁶

According to another study with same issue in a population foreign to Turkish culture or beliefs; Economic status and knowledge of the health system were related to access to contraception and induced abortion information. Spanish, Western European and South American women had a higher social level than Romanian and African women. Late induced abortion use and a lower recurrence characterised Asian, North African and Spanish women. Differences on induced abortion use between groups of different women seem to be related to vulnerability (economic, social, knowledge and use of healthcare services). There is a different situation among immigrants of differing nationalities.¹⁷

Contraceptive preference in different ethnic groups was well demonstrated in this study that the use of contraceptive pills was more frequent among Muslims from Germany and Christians from Greece ($p<0.001$), while the use of condoms was more frequent among Christians from Greece ($p=0.019$). The use of IUDs was more frequent among Muslims from Germany and Greece ($p=0.039$). Study results reveal that there are behavioral differences between race/ethnic groups and minorities regarding contraceptive practices, probably due to different cultural, socioeconomic and educational factors.¹⁸ With this study result we can not totally but partially exclude the effect of religion on contraceptive preference.

Our study population was consisted of women with low socioeconomic status with higher mean number of children than the mean around Ankara, we have studied the effect of education and not found any association with contraceptive preference, this was thought to be due to cultural factors specific to study population living in this region of Ankara.

Study, consistent with our conclusion, concluded that when new immigrants are faced with the challenges of acclimating to a new society and a new way of life, they may anchor strongly to traditional religious and cultural expectations regarding family, sexuality, and fertility. The values that an individual woman holds may not be in keeping with the official teachings of her religion or the cultural norms reported by other members of the same culture.¹⁹

The prejudices against vasectomy are probably due to misinformation. Female sterilisation, however, is widely accepted by both participants. Family planning programmes organised equally for women and men, supported also by mass media could improve access to convenient and effective contraception.²⁰ This conclusion indicates another problem concerning family planning programmes in Turkey parallel to what we have tried to emphasize .

In a study by Tanrıverdi no difference was shown in terms of knowledge of sexually transmitted disease and rate of contraceptive method use between male and female university students.²¹ First sexual intercourse was shown to be earlier in males and sexual intercourse rates were higher in males.

Our study suggests that education, number previous contraceptive failure or maternal age does not effect the contraceptive preference after surgical abortion and it was thought to be due to cultural beliefs of population in Turkey.

Türkiye’de Eğitim Durumu Daha Önceki Başarısız Kontrasepsiyon Sayısı Cerrahi Düşük Sonrası Kontraseptif Tercihini Etkilemiyor

AMAÇ: Bu çalışmanın amacı, başarısız kontrasepsiyon sonucu cerrahi düşük sonrası kontraseptif tercihinin belirleyicilerini araştırmaktır.

GEREÇ VE YÖNTEM: Çalışma grubu Dr. Sami Ulus Kadın Doğum, Çocuk Sağlığı ve Hastalıkları Eğitim Araştırma Hastanesi aile planlamasına başvuran ve cerrahi düşük yaptırılan 302 hastadan oluşuyordu. Tüm gebelikler 5-10 gestasyonel hafta arasında idi. Gravida, parite, daha önceki cerrahi düşük sayısı, yaşayan çocuk sayısı, son gebelik durumu ve kontraseptif metodu kaydedildi.

BULGULAR: Ortalama yaş, gravida, parite, daha önceki cerrahi düşük sayısı ve yaşayan çocuk sayısı sırası ile 31.05 ± 6.52 (19-46 years), 4.30 ± 1.83 (1-11), 2.33 ± 1.32 (0-7), 0.96 ± 1.05 (0-5), 2.28 ± 1.29 (0-7) idi. Cerrahi düşüğü olan 183 (60,6%) hasta vardı ve ortalama cerrahi düşük sayısı 1.59 ± 0.6 idi. Bu hastaların 82 (45%) tanesi kontrasepsiyon kullanmıyor, 55 (30%) kadın geri çekme kullanıyordu. Kondomu sadece 29 (16%) kadın kullanıyordu. Oral kontraseptif 11 (6%) kadında kullanılıyordu. Kondom veya oral kontraseptif kullanımı ve eğitim durumu arasında ilişki izlenmedi ($p=0.786$). Kondom veya oral kontraseptif kullanıcıları daha gençti fakat fark anlamlı değildi ($p=0.071$). Farklı kontraseptif kullanıcıları gravida, parite ve son gebelikten sonraki süre bakımından benzerdi (sırası ile, $p=0.423$, $p=0.402$, 0.467). Önceki cerrahi düşük sayısı, son kullanılan kontraseptif metod ($p=0.386$) ve eğitim düzeyi arasında ilişki elde edilemedi ($p=0.735$).

SONUÇ: Çalışmamıza göre, eğitim durumu, daha önceki başarısız kontrasepsiyon sayısı ve anne yaşı cerrahi düşük sonrası kontrasepsiyon tercihinin etkilemiyor.

Anahtar Kelimeler: Eğitim durumu, Kontrasepsiyon, Cerrahi düşük

References

1. Ciftçioğlu S, Erci B. Coitus interruptus as a contraceptive method: Turkish women's perceptions and experiences. *J Adv Nurs*. 2009 ;65(8):1686-94.
2. Yanikkerem E, Acar H, Elem E. Withdrawal users' perceptions of and experience with contraceptive methods in Manisa, Turkey. *Midwifery*. 2006;22(3):274-84.
3. Aytekin NT, Pala K, Irgil E, Aytekin H. Family planning choices and some characteristics of coitus interruptus users in Gemlik, Turkey. *Womens Health Issues*. 2001;11(5):442-7.
4. U.S. Bureau of the Census, International data base country summary: Turkey, 2008; 24.
5. Turkish Statistical Institute, Population and development indicators, 2007, 2008; 24.
6. Hacettepe University Institute of Population Studies (HIPS) and Macro International, Inc., Turkish Demographic and Health Survey, 1998, Ankara, Turkey: HIPS; and Calverton, MD, USA: Macro International, Inc., 1999.
7. HIPS, Turkey Demographic and Health Survey, 2003, Ankara, Turkey: HIPS, 2004.
8. Kulczycki A, The determinants of withdrawal use in Turkey: a husband's imposition or a woman's choice? *Social Science & Medicine*, 2004, 59(5):1019–1033.
9. Ortaylı N et al., Why withdrawal? Why not withdrawal? Men's perspectives, *Reproductive Health Matters*, 2005, 13(25):164–173.
10. Ergöçmen BA et al., An Analytical Insight into a Traditional Method: Withdrawal Use in Turkey, Ankara, Turkey: HIPS; and Calverton, MD, USA: ORC Macro, 2001.
11. Yannikkerem E, Acar H and Elem E, Withdrawal users's perceptions of and experience with contraceptive methods in Manisa, Turkey, *Midwifery*, 2006, 22(3):274–284.
12. Kulczycki A. Husband-Wife Agreement, Power Relations And Contraceptive Use in Turkey. *International Family Planning Perspectives*, 2008, 34(3):127–137.
13. El Hamri N. Approaches to family planning in Muslim communities. *J Fam Plann Reprod Health Care*. 2010; 36(1):27-31.
14. Olinto MT, Moreira-Filho Dde C.. Risk factors and predictors of induced abortion: a population-based study. *Cad Saude Publica*. 2006;22(2):365-75.
15. Ceylan A, Ertem M, Saka G, Akdeniz N. Post abortion family planning counseling as a tool to increase contraception use. *BMC Public Health*. 2009 15;9:20.
16. Rahnama P, Hidarnia A, Shokravi FA, Kazemnejad A, Oakley D, Montazeri A. Why Iranian married women use withdrawal instead of oral contraceptives? A qualitative study from Iran. *BMC Public Health*. 2010 28;10:289.
17. Zurriaga O, Martínez-Beneito MA, Galmés Truyols A, Torne MM, Bosch S, Bosser R, Portell Arbona M. Recourse to induced abortion in Spain: profiling of users and the influence of migrant populations. *Gac Sanit*. 2009;23 Suppl 1:57-63.
18. Galazios G, Tsikouras P, Liberis V, Koutlaki N, Vlachos G, Teichmann AT, Maroulis G. Attitudes towards contraception in three different populations. *Clin Exp Obstet Gynecol*. 2008;35(1):22-6.
19. Srikanthan A, Reid RL. Religious and cultural influences on contraception. *J Obstet Gynaecol Can*. 2008; 30(2):129-37.
20. Gunenc Z, Bingol B, Gedikbasi A, Yesildaglar N, Erkaya S. Opinions concerning male and female sterilisation in Turkey. *Eur J Contracept Reprod Health Care*. 2009 Oct;14(5):375-8.
21. Tanrıverdi g, Ersay AR. The Effect of Gender on Sexual Behavior, Knowledge of Sexually Transmitted Diseases and Contraceptive Methods in College Students in Turkey *Turkiye Klinikleri J Med Sci* 2010;30(3):1039-45