

# Reasons for Widespread Withdrawal Method Use in Turkey: Systematic Review

## Türkiye’de Geri Çekme Yönteminin Yaygın Kullanımının Nedenleri: Sistemik Derleme

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**ABSTRACT Objective:** In this systematic review, it was aimed to synthesize the findings of the studies examining the dynamics behind the consistent tendency of couples in Turkey towards withdrawal use. **Material and Methods:** In this systematic review, 139 articles were reached in total and 24 full text articles in descriptive and cross-sectional type were included in the study through searching in Medline, Web of Science databases and Turkish health databases using the keywords, withdrawal, coitus interruptus, contraception, traditional family planning methods and Turkey. A systematic search of studies from 1990 to 2020 was conducted using Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) guidelines. **Results:** In this review, 24 articles, one descriptive and the other cross-sectional, were included in the analysis. Analysis were presented under two subheadings as Male-related Reasons and Female-related Reasons. Gender-based explanations were prominent for withdrawal use for both male and female. Patriarchal mind, unwillingness to use a more effective method due to incorrect beliefs about side effects, being the most widely known method by men, being the first method used, perceiving family planning as a task of women, getting information from peers about family planning and lack of communication between spouses was among the male-related reasons. Husband preference, incorrect beliefs and perceptions about the side effects of effective methods, lack of knowledge about effective family planning methods and lack of self-efficacy about switching to another method was among the female related reasons. In addition, other female related reasons were found as follows: lack of knowledge about both reproductive system physiology and ovulation days, getting information from their social environment about family planning. **Conclusion:** This systematic review showed that the tendency of men not to use family planning services and the insufficient use of these services by women were among the reasons for the widespread use of the withdrawal method. Additionally, both male and female related reasons revealed that gender-based norms affected widespread withdrawal method use. Interventions should be improved to promoting more equitable gender norms related to family planning and to increasing couple communication on fertility and contraceptive use.

**Keywords:** Contraception; coitus interruptus; family planning; fertility

**ÖZET Amaç:** Bu sistemik derlemede, Türkiye’de çiftlerin geri çekme yöntemi kullanma eğilimlerinin arkasındaki dinamikleri araştırarak çalışmaların bulgularını sentez etmek amaçlanmıştır. **Gereç ve Yöntemler:** Bu sistemik derlemede, geri çekme, kontrasepsiyon, geleneksel aile planlaması yöntemleri ve Türkiye anahtar kelimeleri kullanılarak taranan Medline, Web of Science veri tabanı ve Türk sağlık veri tabanında yayınlanmış olan toplam 139 makaleye ulaşılmış, tanımlayıcı ve kesitsel türde tam metinli 24 makale çalışma kapsamına alınmıştır. 1990-2020 yılları arasında yayınlanmış olan çalışmalar, PRISMA rehberi kullanılarak sistemik olarak taranmıştır. **Bulgular:** Bu derlemede biri tanımlayıcı diğerleri kesitsel olmak üzere 24 makale analize dahil edilmiştir. Bulgular, erkek ve kadınla ilgili nedenler olarak iki alt başlık altında sunulmuştur. Geri çekme yönteminin kullanımına yönelik hem erkek hem de kadınlarla ilgili açıklamalarda cinsiyete dayalı açıklamalar öne çıkmıştır. Ataerkil anlayış, yan etkilere yönelik yanlış inanç nedeniyle daha etkili bir yöntem kullanmaya yönelik isteksizlik, erkekler tarafından en yaygın olarak bilinen yöntem olması, ilk kullanılan yöntem olması, aile planlamasını kadınların görevi olarak algılamak, aile planlaması konusunda akranlardan bilgi almak ve eşler arasındaki iletişim eksikliği erkeklerle ilgili nedenler arasında yer almaktadır. Eş tercihi, etkili yöntemlerin yan etkileri hakkında yanlış inançlar ve algılamalar, etkili aile planlaması yöntemleri hakkında bilgi eksikliği ve başka bir yöntemle geçme konusunda öz-yeterlik eksikliği kadınlarla ilgili nedenler arasında yer almaktadır. Buna ilave olarak, kadınlarla ilgili diğer nedenler şunlardır: Hem üreme sistemi fizyolojisi hem de ovulasyon günleri hakkında bilgi eksikliği ve aile planlaması konusunda sosyal çevreden bilgi almak. **Sonuç:** Bu sistemik derleme, erkeklerin aile planlaması hizmetlerini kullanmada eğiliminde olmalarının, kadınların ise bu hizmetleri yetersiz kullanılmama eğiliminde olmalarının yaygın kullanımın nedenleri arasında olduğunu göstermektedir. İlave olarak, hem erkeklerle ilgili hem kadınlarla ilgili nedenler, cinsiyete dayalı normların geri çekme yönteminin yaygın kullanımını etkilediğini ortaya koymaktadır. Aile planlaması ile ilgili daha eşitlikçi cinsiyet normlarını teşvik eden ve fertilitte ve doğum kontrol yöntemleri konusunda çift iletişimini artırmayı hedefleyen müdahaleler geliştirilmelidir.

**Anahtar Kelimeler:** Doğum kontrolü; geri çekme yöntemi; aile planlaması; fertilitte

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Many people in the world used traditional methods for contraception and withdrawal was the most commonly used one.<sup>1</sup> Withdrawal as a worldwide prevalent male method varied by country and region. Among all regions, the highest prevalence of withdrawal use was observed in Europe (7.8%). Albania ranked first in withdrawal use with 42.2% both in the Europe and world; it was followed by Serbia (35.0%), Bosnia and Herzogavina (29.8%) and Greece (28.8%). As regards Africa, Mauritius was marked with 28.5% withdrawal use. Azerbaijan (36.6%) and Armenia (25.0%) were the two Asian countries with their striking prevalence of withdrawal use.<sup>1</sup> Thus, the withdrawal as a widely used method deserved special attention to understand why it was so preferred.

An analysis of research demonstrated that Turkey ranks tenth among countries where there was widespread use of withdrawal.<sup>1</sup> In Turkey, the level of traditional method use appeared to have remained almost unchanged, whereas the use of effective contraceptive methods increased from 38 percent to 49 percent between 1998 and 2018.<sup>2,3</sup> The male condom (19%), the intra-uterine device (14%) and female sterilization (10%) were the most widely used methods of effective contraception.<sup>3</sup> Traditional method use was 21 percent and the share of withdrawal use was quite high (20%).<sup>3</sup> Additionally, the total fertility rate was 50 percent lower than the rate recorded in 1970s in Turkey. The total fertility rate has been in a declining trend has gained speed in the 1990s.<sup>2</sup> The rising age at marriage was one of the factors that has contributed to fertility decline.<sup>2,3</sup> In this paper studies published between the years of 1990-2020 has been reviewed taking this changing demographic structure of the country into consideration.

According to a study, despite a fertility decline, a marked increase in contraceptive prevalence, and expansion of Family Planning (FP) activities in Turkey, almost one in four Turkish couples relied on withdrawal.<sup>4</sup> The studies conducted in our country showed that, no side effects, easy to use, lack of courage to change another method, side effects of other methods, husband unwillingness to use more effective methods and perceptions that more effective methods will harm the functions of the repro-

ductive system were among the reasons for use of withdrawal.<sup>3,5-7</sup> Study results showed that 29% of unwanted pregnancies occurred when the couples were practicing withdrawal.<sup>3</sup> If it was aimed to reduce the rate of unwanted pregnancy and the rate of unmet need, it was necessary to understand the reasons for the widespread use of the withdrawal.<sup>8,9</sup> The aim of this systematic review was to understand the underlying factors of widespread withdrawal use in Turkey on the basis of existing studies. This article is thought to contribute to the development of evidence-based family planning programs by healthcare professionals in line with the reasons for the widespread use of the withdrawal method.

## MATERIAL AND METHODS

PRISMA-P (Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols) declaration has guided the study.<sup>10</sup> Electronic (computerized) search of Medline, Web of Science databases and Turkish health databases were conducted for data collection (Figure 1). In the review the articles related to withdrawal use in Turkey published in Turkish and English between the year 1990 and 2020 were examined using the keywords: Withdrawal OR coitus interruptus, contraception AND Turkey, withdrawal OR coitus interruptus AND traditional family planning method AND Turkey. Turkish keywords were also used for the search of Turkish Health Database: Withdrawal OR coitus interruptus/geri çekme, contraception AND Turkey/kontrasepsiyon VE Türkiye, withdrawal OR coitus interruptus/geri çekme AND traditional family planning method AND Turkey/geleneksel aile planlaması yöntemi VE Türkiye.

## ELIGIBILITY CRITERIA AND REVIEW PROCESS

Eligibility assessment was performed independently in a blinded standardised manner by the researcher and an expert in sociology and demography. Author and the expert independently reviewed all abstracts and titles for inclusion using the following criteria: Studies that were based on Turkish data and the studies in which withdrawal has been focused on. Disagreements between them were resolved after each round of screening by comparing reasons for exclu-

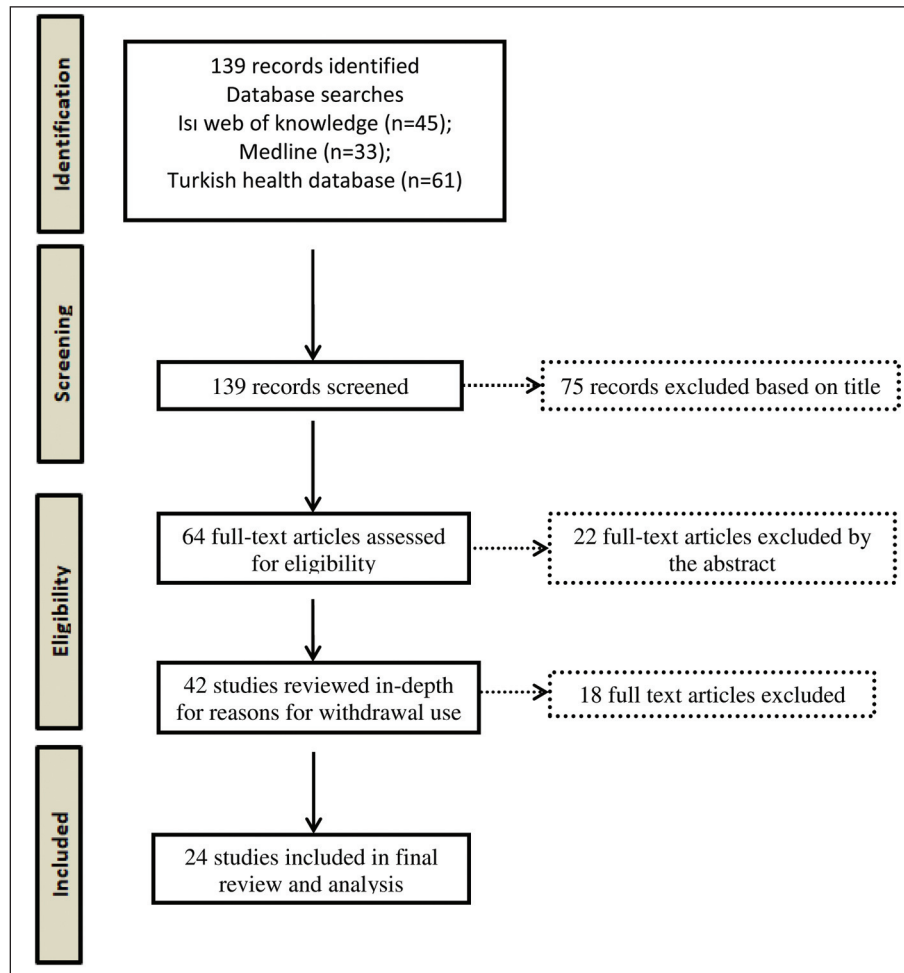


FIGURE 1: PRISMA diagram for systematic review search.

sion and, after discussion, agreeing on whether to include or exclude the article in question (Figure 1). The first round of screening was done by article title and abstract. Articles were excluded if they were clearly not about withdrawal or conducted in countries other than Turkey. The second round of screening reviewed the full text of studies, and excluded those that were not focused on the reasons behind the long use of withdrawal method. The third and final round of screening involved an in-depth reading of articles. This final round was aimed to review if they truly fulfilled each inclusion criteria in particular whether or not they included the reasons for the high rates of withdrawal use in Turkey.

Studies in which methodology was not explained clearly, conducted with non-representative sampling, conducted in countries other than Turkey

and its results were not about reasons behind the long use of withdrawal method in Turkey were not included to the review. Studies that were based on Turkish data and the studies in which withdrawal has been focused on the reasons behind the long use of withdrawal method, well-designed cross sectional studies with representative sample designs that have been carried out with women and/or men at reproductive ages have been included to the review.

#### QUALITY ASSESSMENT

In order to assess study quality, the author drew from the Critical Appraisal Skills Programme (CASP) Checklist. The author adapted criteria based on approaches from published literature on similar systematic reviews, such as those employed by Deitch and

TABLE 1: Quality assessment criteria.

Study aim or objective	Clear statement of the aim(s) or objective(s) of the study
Definition of reasons for withdrawal use	Reasons for withdrawal use is examined with a discussion or justification of how the study presented the widespread withdrawal use
Research design	Appropriate research design for the aim(s) of the study with justification
Sampling/recruitment	Clear description of the recruitment strategy and justification for its appropriateness for the aim(s) of the study
Data collection	Data collection methods were described and addressed the aim(s) of the study
Methodology	Consideration of how tools and methodology is appropriate
Data analysis	Clear description of the data analysis method and discussion of the research findings, with sufficient original data to support the findings
Ethical considerations	Study considers ethical issues, including informed consent
Cultural appropriateness	Study considers cultural context
Reliability	Evidence that reliability has been considered with measures providing a consistent, coherent, and trustworthy basis for drawing conclusions.

Stark.<sup>11,12</sup> Quality assessment criteria was presented in Table 1. Each of ten item was scored on a binary scale, with 1 indicating a study met the criteria and 0 did not. The quality score of each study was collected and the total score ranged from 0 to 10. As seen in the Table 2 where the names of the authors are arranged in alphabetical order, eight or higher score were considered as high quality, between 5 and 7 score were considered as medium quality and below 5 score were considered as low quality.<sup>11,12</sup>

In this study, since the articles accessible were included in the analysis, ethics committee permission was not required.

## RESULTS

### SELECTION OF THE STUDIES

The literature search yielded a wide range of studies. The total number of references that came up with the search terms used was 139. Forty-five studies were from Web of Science databases, 33 from Medline and 61 from Turkish health databases (Figure 1). Following the exclusion of articles on the basis of their titles, there remained 64 (Web of Science 25, Medline 13 and Turkish health data base 26) abstracts for scrutiny. After 22 full-text articles excluded by the abstract, there remained 42 full texts to be included. After the inclusion criteria were applied 18 full text articles excluded. Thus, a total of 24 articles were examined.

### CHARACTERISTICS OF STUDIES

As it can be seen in Table 2, 24 studies, which were determined reasons of withdrawal use in Turkey, were examined in the review. In the majority of the studies (n=19), the sample consisted of only female participant. Only one study conducted with both male and female participants. Only four articles were conducted with male participants. As seen in the Table 3 and Table 4 where the names of the authors are arranged in alphabetical order, analysis were presented under two subheadings as male (9 articles) and female-related reasons (15 articles). Both *female-related reasons* and *male-related reasons* were reasons stated by both female and male participants.

In this review, all studies have used quantitative methodology. Most of the studies were designed cross-sectional (n=23). Articles generally explained the situation from gender perspective. In the 10 articles focus was mainly on the withdrawal method whereas others were handled within a FP perspective.

### REASONS FOR USE OF WITHDRAWAL METHOD

In the reviewed studies, widespread use of withdrawal in Turkey was explained in a wide spectrum ranging from patriarchal based explanations to how information about FP method was received. Perceiving FP as a task of women, considering sexuality as a taboo not to be spoken explicitly about, lacking dialogue between spouses about contraception and reluctance to changing to a more effective method of

**TABLE 2: Study quality.**

Author	Study aim	Defining reasons for withdrawal use	Research design	Sampling/ recruitment	Data Collection	Methods	Data analysis	Ethical considr.	Culturally appropriate	Reliability	Quality
Akın	✓	✓	✓	✓	x	✓	x	x	x	✓	6 medium
Altay	✓	✓	✓	✓	x	x	✓	✓	x	✓	7 medium
Aytekin	✓	✓	✓	✓	✓	x	x	x	x	x	5 medium
Bostancı	x	✓	x	✓	✓	✓	✓	x	x	x	5 medium
Bulut	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 high
Bulut and Yiğitbaş	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	9 high
Cindoğlu	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	9 high
Çiftioğlu	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 high
Doğan-Pekince	✓	✓	✓	✓	x	✓	✓	x	✓	x	7 medium
Egeloğlu-Cetışli	✓	✓	✓	✓	✓	x	x	✓	x	✓	7 medium
Engin-Üstün	✓	✓	✓	✓	x	✓	x	✓	x	✓	7 medium
Erfani	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 high
Ergöçmen	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	9 high
Goldberg	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 high
Kaplan	x	✓	x	✓	✓	✓	✓	✓	x	✓	7 medium
Karaoğlan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 high
Koç	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 high
Kulczycki	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	9 high
Özkaya	✓	✓	x	x	✓	x	x	✓	✓	x	5 medium
Pekumaz	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 high
Sak	x	✓	x	x	✓	✓	x	✓	x	✓	5 medium
Yanikerem	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 high
Yılmazel	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	9 high
Yurdakul	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 high

TABLE 3: Articles related to male related reasons.

Author	Objective	Sample characteristics/ city	Methods	Perspective	Findings	Study quality
Akın et al. (2006) <sup>18</sup>	To investigate the factors affecting the use of FP method of married men	Married men nationally representative sample (TDHS-1998)	Cross-sectional study (n=1971)	Male participant	It was determined that talking with "friends" about FP increased the frequency of using "withdrawal" method.	Medium
Alay and Gönener (2009) <sup>15</sup>	To determine the factors affecting the use of Family Planning (FP) method of married men	Married men, Samsun	Cross-sectional study (n=298)	Men viewpoint	It is seen that the methods that men know the most are the methods used by men and therefore they use these methods most frequently.	Medium
Çiftçioğlu and Erci (2009) <sup>13</sup>	To determine the perceptions and experiences of coitus interruptus	Women, Erzurum	Cross-sectional (n=422)	The study was guided by the health promotion model.	Many of the women with low socioeconomic status reported that the reason for not using a more effective contraceptive method was their husbands' unwillingness to participate. Those of higher socioeconomic status stated that the reason for not using more effective contraceptive methods was the potential side-effects.	High
Doğan-Pakıncı and Yılmaz (2012) <sup>17</sup>	To investigate the perspectives of married women on male contraception methods	Married women, Afyon	Descriptive study (n=338)	Male participant	There is no more options in male contraception. Injections and pills to be developed for men as contraception may be preferred	Medium
Erfani and Yüksel-Kaplanoğlu (2012) <sup>19</sup>	To examine the factors associated with the likelihood of practicing withdrawal rather than using effective contraceptive methods among birth limiters	Married women nationally representative sample (TDHS-2003)	Cross-sectional study (n=2392) birth limiters	High rates of withdrawal use	Limiters who did not have a son were more inclined to use withdrawal than limiters with at least one son. Families with only daughters may be more willing to use withdrawal.	High
Ergöçmen et al. (2004) <sup>5</sup>	To explore patterns of use of the withdrawal and to examine factors that contribute to the method's popularity among users	Women and husbands, nationally representative sample (TDHS-98)	Cross-sectional study (n=8059 households (8576 women and 1971 husbands)	Couples who use withdrawal effectively should be supported in their decision to use this method of contraception	Husbands who are not educated, even if their wives are educated, are more likely to practice withdrawal compared with husbands who are educated.	High
Kulczycki (2004) <sup>4</sup>	To examine the determinants of the high level of withdrawal use in Turkey by focusing on men.	Married men, nationally representative sample (TDHS-98)	Cross-sectional (n=1950)	Exploring withdrawal use from a male perspective is especially important if we are to gain insight into the role of men in fertility regulation	Husbands practicing withdrawal agreed with patriarchal roles and attitudes more often than did other contraceptive users.	High
Yılmaz et al (2019) <sup>20</sup>	To determine the factors associated with better attitudes and participation to FP services.	Married men, Çorum	Cross sectional survey (n=400)	FP requires the use of regular and continuous contraceptive methods, and its success depends on the males' participation.	Better self-perception of communication is significantly associated with better male participation in FP services	High
Yurdakul and Vural (2002) <sup>16</sup>	To investigate reasons for using traditional methods	Married women, Eskişehir	Cross-sectional study (n=2481)	High rates of withdrawal use	Women who use traditional methods were reported to be married to men objecting to contraception. Men also perceive FP as a task of women.	High

TABLE 4: Articles related to female related reasons.

Author	Objective	Sample characteristics / city	Methods	Perspective	Findings	Study Quality
Aytekin et al. (2001) <sup>32</sup>	To gain information about the reasons for Coitus interruptus (CI) use	Married women, Bursa	Cross-sectional study (n=1910)	Instead of insisting on using effective methods, it is better to help determined CI users by recommending ways of more effective use	Most of the users are content with CI	Medium
Bostancı (2011) <sup>23</sup>	To examine the sources of information about the method used.	Multiparous women, Elazığ	Cross-sectional study (n=423)	Instruction by health personnel increase the use of effective methods	The source of information for the majority of withdrawal users is the people around them and their family members	Medium
Bulut et al. (1997) <sup>21</sup>	To investigate the relationship between contraceptive choice and reproductive morbidity	Women, İstanbul	Cross-sectional survey (n=696)	Assessing women's perceptions of reproductive morbidity	The principal reason given for practicing withdrawal was avoidance of side effects	High
Bulut and Yiğitbaş (2019) <sup>28</sup>	To determine the FP methods used by women	Married women, Bingöl	Cross-sectional survey (n=295)	FP is intended to protect the health of mothers and children	Almost half of the participant received information about FP from their husband, friends and/or relatives	High
Çindoğlu et al. (2006) <sup>8</sup>	To investigate the determinants of withdrawal use	Women nationally representative sample (TDHS-1998-2003)	Cross-sectional study (n=8576)	The empowerment of women	If first contraceptive method used by women was withdrawal, their likelihood of opting for that method instead of effective ones is 5.4 times higher	High
Egeleolu-Çetisli et al. (2016) <sup>30</sup>	To determine the effect of FP method used by married women on their sexual health and self-esteem.	Married women, Izmir	Cross-sectional study (n=269)	Sexual quality of life	Low self esteem and sexual dysfunction were found to be higher in women using withdrawal method than women using effective methods.	Medium
Eriğin-Üstün et al. (2007) <sup>34</sup>	To evaluate the effect of postpartum counseling on postpartum contraceptive use.	Postpartum women, Malatya	Cross-sectional study (n=143)	Postpartum contraceptive counseling	In spite of postpartum counseling, a high majority of women use traditional contraceptive methods.	Medium
Gölgberg and Toros (1994) <sup>14</sup>	To examine Turkish couples' use of and opinions about traditional methods.	Married women nationally representative sample (TDHS-1988)	Cross-sectional study (n=5257)	Preference to use a different method	The most commonly cited reason was the potential for health problems associated with effective methods. Half of traditional method users would prefer to use a different method.	High
Kaplan and Zeyneloğlu (2018) <sup>23</sup>	To determine the factors affecting sexual satisfaction of women using withdrawal method and the effect of sexual satisfaction on marital adjustment	Women, Gaziantep	Cross-sectional study (n=1422)	Sexual satisfaction, marital adjustment	Sexual satisfaction of women using withdrawal method was low and this had a negative effect on marital adjustment	Medium

continued →

TABLE 4: Articles related to female related reasons (continued).

Author	Objective	Sample characteristics / city	Methods	Perspective	Findings	Study Quality
Karaođlan and Saraçođlu (2020) <sup>26</sup>	To investigate the impact of a woman's socioeconomic status on their likelihood of current use of contraception and choice of methods	Married women, nationally representative sample (TDHS-2013)	Cross-sectional survey (n=6025)	Women's work or occupation has effect on their contraceptive behaviour	Women's employment, occupation and wage status have not yet reached the stage where childbearing and parenting constitute an important opportunity cost to being employed and to the type of work done in Turkey.	High
Koç (2000) <sup>8</sup>	To examine determinants of contraceptive use	Married women nationally representative sample (TDHS-1993)	Cross-sectional study (n=6519)	Contraceptive choice	Increasing the educational level of women may be the most effective means of advancing FP acceptance and increasing the demand for contraceptive services in Turkey	High
Özkaya et al. (2010) <sup>27</sup>	To investigate the determinants of the contraceptive preference of couples after surgical abortion result of contraceptive failure	Women, Ankara	Cross sectional survey (n=302)	Contraceptive preference after surgical abortion result of contraceptive failure	Women do not give up their beliefs about contraception in spite of suffering from failure resulted in surgical abortion.	Medium
Pekcumaz (2020) <sup>25</sup>	To investigate the effect of paid employment on the contraceptive behavior	Married women, nationally representative sample (TDHS-2013)	Cross-sectional survey (n=6,731)	Improved access to contraception enhances women's status	Women who are out of the paid labor force are less likely to use modern methods.	High
Sak et al. (2008) <sup>22</sup>	To evaluate the relationship between contraceptive methods, unwanted pregnancies and education level	Multiparous women, Diyarbakir	Cross-sectional study (n=152)	Increased educational level	The obvious advantages of the withdrawal method, such as immediate availability and no cost, are the most important reasons for its frequent use.	Medium
Yanikkerem et al. (2006) <sup>7</sup>	To examine the knowledge, perceptions and experiences of using contraceptive methods among withdrawal users.	Women, Manisa	Cross-sectional study (n=276)	Women perspective	It doesn't contain hormones, easy to give up and lack confidence of women about effective methods are among the reasons for using withdrawal	High



women were among the explanations. Additionally, at the background, knowledge deficiencies, regarding peers as the source of information, son preference, women's self-ignorance of their sexuality and in particular gender based patriarchal attitudes constituted the underlying reasons for the widespread withdrawal use. Being easy to use and quit, being free of charge were among the other noticeable reasons that were put forward in the articles.<sup>4,13,14</sup> Health aspect was also among the frequently pointed out reasons for withdrawal use. In these articles "being healthier", and not having confidence in effective methods were stated as motives for withdrawal use.<sup>4,7,14</sup>

As a result of the analysis of 24 articles, gender-based explanations were prominent for withdrawal use. Therefore, analysis were presented under two subheadings as *Male-* and *Female-Related Reasons*.

### MALE-RELATED REASONS

Nine articles explained the widespread use of withdrawal with referring to male related reasons (Table 3). *Male-related reasons* were reasons stated by both female and male participants. "Male preference" to use withdrawal was the most frequently given reason in these articles. This broad concept was detailed as male's consideration of withdrawal as an effective method, male unwillingness to use more effective methods, to be among the most widely known method by men. Additionally, it was also mentioned that using withdrawal as one's first method had the highest association with the current use.<sup>15</sup> Moreover, perceiving FP as a task of women and regarding peers as the source of information about FP were the other reasons that appeared among the other male-related reasons.<sup>16</sup>

In this review, male unwillingness to use more effective methods due to their side effects was the most prominent reason for withdrawal use.<sup>4,5,13</sup> Çiftçiöğlü and Erci, in their study they conducted in Erzurum, determined that partner's unwillingness for women in low socio-economic level whereas the possible side effects for women of high socioeconomic level as a reason for not using a more effective method.<sup>13</sup> Despite the high failure rates of the withdrawal method, they explained the persistent use of this method by health promotion model emphasizing

the preferences based on the perceptions about benefits of the method such as not having side effects, being free of charge and being easy to use.<sup>13</sup> A study, with nationally representative sample conducted in Turkey, identified that husbands who exhibited patriarchal attitude, who had a low level of education and income, who wanted to limit fertility used the withdrawal method more.<sup>4</sup> On the other hand, the research emphasized that withdrawal was also a response to the request of the woman to avoid the side effects of other methods. Thus, studies showed that couples preferred the withdrawal method to avoid the harmful effects of effective methods.<sup>6,13</sup> On the other hand, the findings of a study conducted by Doğan-Pekince and Yilmazer in Afyon showed that injections and pills to be developed for men as contraception may be preferred and that more methods for male should be introduced.<sup>17</sup>

The studies that were examined in this review demonstrated that if men did not involve in FP services as both user and client, this could contribute to gain information through social environment instead of health professionals. Researchers also emphasized that talking with their friends about FP increased the rate of using withdrawal by men.<sup>15,18</sup> This review also revealed that withdrawal method to be used as first method was largely associated with current withdrawal use.<sup>5,19</sup> Altay and Görener (2009), in their study conducted in Samsun, identified that the most widely known and the most widely used methods among married men were to be methods used by men.<sup>15</sup> A study with nationally representative sample in Turkey emphasized the importance of FP programs which will be prepared through considering the needs of men. The study also emphasized the importance of providing premarital counselling on contraceptive options for all young people and adolescents including female and male.<sup>5</sup> On the other hand, there were studies emphasizing withdrawal should be considered as a method of contraception, health care personnel should be in a neutral stance towards all methods and instead of insisting on the use of a effective method, more effective ways to use (teaching fertile periods and physiology of reproductive system) should be offered to the persistent users of the withdrawal method.<sup>5,13,15</sup>

In this review, research results demonstrated the importance of strengthening communication between spouses and encouraging male participation in FP services as both user and supporter in the choice of methods. A study conducted by Yılmazel et al. in Çorum revealed that better self-perception of communication is significantly associated with better male participation in FP services.<sup>20</sup> According to the majority of the studies in this review, men were avoiding to participate in issues related to FP, they did not seem to talk with their wife about sexuality explicitly and they perceived FP as a task of women.<sup>16,18</sup> It was interesting to note that even though they knew FP methods less than women and they experienced less fear of unwanted pregnancy, the decision on withdrawal method was mostly made by men.

In this review, several research results identified that withdrawal was used widely as it was used by the Prophet and it was allowed in Islam.<sup>16,21</sup> Some other studies identified that couples who had only girl were more prone to use the withdrawal method and they took the risk of contraceptive failure.<sup>19,22</sup>

#### FEMALE-RELATED REASONS

Fifteen articles explained withdrawal use based on the female-related reasons (Table 4). *Female-related reasons* were the reasons stated by both female and male participants. Satisfaction with the withdrawal method, perceptions regarding the side effects of effective methods, lack of self-efficacy in relation to changing to another method were among the explanations. For example, Bulut et al., in their study they conducted in Istanbul, put forward the avoidance of side-effects as to the principal reason given by women and they commented that women considered withdrawal as a refuge for themselves.<sup>21</sup> Learning from their social environment, beliefs regarding FP methods, difficulty to access for effective FP methods, lack of knowledge about other FP methods were among the female-related reasons that reflect on widespread withdrawal use.

In this review, unemployment, low socioeconomic status and educational level, living in rural areas, living in eastern region were associated with more frequent use of the withdrawal method.<sup>19,22-24</sup>

Pekkurnaz, in a study with nationally representative sample in Turkey, demonstrated that women who were out of the paid labor force were less likely to use modern methods.<sup>25</sup> On the other hand, Karaoğlan and Saraçoğlu in their study, with nationally representative sample conducted in Turkey, concluded that the use and choice method of contraceptives among married women in Turkey were still strongly influenced by accessibility and available information on birth control rather than by work and occupation-related opportunity costs posed by childbearing and parenting, as primarily observed in developed economies.<sup>26</sup> Research results also revealed that despite of women in both low and high socioeconomic status were aware that the biggest disadvantage of withdrawal was the risk of becoming pregnant, they were satisfied with the withdrawal method and they continued to use it.<sup>5,27</sup> Engin-Üstün et al., in their study they conducted in Malatya, found that although women received postpartum counseling, vast majority of them continued to use the withdrawal method.<sup>24</sup> Moreover, women insisted on believing withdrawal was an effective method despite they had surgical abortion in result of the method failure. They explained this situation by lack of self-efficacy and perceiving insufficient clue to changing another method.<sup>16</sup> This findings demonstrated that women's self-efficacy could be increased through their more effective use of FP services. Empowerment of women educationally and socioeconomically and exhibition of modern and liberal attitude toward women could increase more effective use of FP services.<sup>8,22</sup>

The initial method seemed to be very important for the subsequent choice of FP method.<sup>7,23</sup> For example, as Bulut et al. put it, "most users tend to stay with the same method, once chosen" and it was usually the women's perceptions of the side effects of the methods that determine this initial choice.<sup>21</sup> This review demonstrated that preferring the withdrawal method again was five times more likely instead of preferring the effective methods, if the first method used was withdrawal.<sup>8,22</sup> Study results revealed that although the choice of the first method was quite important, inadequate FP counseling before marriage could have contributed to gain information

through social environment instead of health professionals. Bulut and Yiğitbaş, in their study they conducted in Bingöl, concluded that almost half of the women received information about FP from their husband, friends and/or relatives.<sup>28</sup> Bostancı, in a study conducted in Elazığ, demonstrated that the vast majority of women who used the withdrawal method received the information from people around them and family members.<sup>23</sup> It was also emphasized that information provided by health professionals would contribute to decrease unwanted pregnancies through increased use of effective contraceptives.<sup>23</sup>

In a study conducted in Gaziantep, it was found that sexual satisfaction of women using withdrawal method was low and this had a negative effect on marital adjustment.<sup>29</sup> In another study, conducted in Izmir, it was interesting to note that although low self-esteem and high sexual dysfunction in women using the withdrawal method for the desire of spouse, it was quite interesting that their satisfaction was near close to those using effective methods.<sup>30</sup> On the other hand, Bozkurt et al., in their study they conducted in Ankara, found that the major complaints of withdrawal method users' were unwanted pregnancies.<sup>31</sup> However some other studies revealed that women using the withdrawal method could not determine the time of ovulation correctly.<sup>7,32</sup>

In this review, some research results showed that women used withdrawal method as a choice of their husbands, however, more than a quarter of them would have preferred another method instead of withdrawal. Moreover, even in cases of failure which result with an unintended pregnancy women continued to use withdrawal and did not switch to more effective methods.<sup>13,17</sup> It was also revealed that the perceived effectiveness and benefits that have been obtained through comparing withdrawal method with more effective methods were among the outstanding reasons for women for not using the preferred method.<sup>6</sup> Fears about the potential effects of some effective contraceptives on women's health, husband's disapproval of the effective methods, lack of knowledge and poor availability, as well as the comparatively high cost of effective contraceptives were

among the reasons for women not using their preferred method of contraceptive.<sup>6,7</sup>

## DISCUSSION

This review aimed to find out the reasons for the widespread use of withdrawal in Turkey. In the articles, socioeconomic reasons, health based reasons, attitudes, perceptions and misconceptions, insufficient communication between spouses and unavailability of contraceptive methods were among the underlying reasons of withdrawal use. Although withdrawal method was widely used in Turkey, effective methods were mostly emphasized. Moreover, health professionals did not provide information regarding withdrawal method unless it was asked.<sup>33,34</sup>

Withdrawal as a male method along with condom use was different than the other effective methods. In fact, withdrawal required more mutual agreement between spouses than the other methods in order to avoid method failure. Thus, a gender based standpoint seemed to be necessary in understanding the widespread use of withdrawal. The two subheadings of our study as male- and female-related reasons helped to understand this multifarious phenomenon from gender based standpoint.

### MALE-RELATED REASONS

Based on the reviewed articles, male-related reasons for using withdrawal varied. While in some articles socioeconomic characteristics came out as an outstanding reason, in some other articles socioeconomic characteristics were considered as not influential in practicing withdrawal.<sup>4,5,19</sup> Differently, in one study, Ergocmen et al. emphasized that husbands who were not educated, even if their wives were educated, were more likely to practice withdrawal compared with husbands who were educated.<sup>5</sup> Additionally, husband's unwillingness to use more effective contraceptives caused by their side effects and husband's preferences to use withdrawal was prominent reasons for withdrawal use.<sup>5,32</sup> However, lack of descriptive information about why men were reluctant to use more effective methods was noteworthy. Future qualitative studies conducted with male participants to shed light on these points could be recommended. On the one hand perceiving FP as a task of women, on

the other hand both their negative attitudes over more effective contraceptives and their tendency to hold the control about FP issues in their hands raised doubts about adequacy of men's knowledge about contraceptives.<sup>4,5,16</sup> The change in the perception that FP was the task of women seemed to be possible only with the active participation of men in FP services and with improving couple communication.

The male-related reasons reflected a paradoxical result; on the one hand men who would like to have more children than they have relied more on withdrawal use and on the other hand men who wanted to limit their fertility also used the withdrawal method more. Interestingly, Zeyneloğlu et al., in their study they conducted in Gaziantep, suggested that men who did not want to receive counseling from a female nurse would prefer to use the withdrawal method which did not require consultation because of these services were provided by female nurses and midwives in almost every health institution in Turkey.<sup>35</sup> On the other hand, Ortaylı et al., in their study they conducted in Gebze, suggested in their qualitative study that despite the decrease in sexual pleasure and risk of failure which have been stated as the biggest disadvantages of the method by the withdrawal users and non users, especially men who used the method for a long time without an unwanted pregnancy considered withdrawal as more advantageous over other methods and would like to continue with it.<sup>36</sup> A study conducted in Philippines revealed that nearly 20% of unmet need could be attributed to husbands' negative perceptions of contraception.<sup>37</sup> In evaluating the impact of men's views of contraception on contraceptive practice, focusing on unmet need was valuable. Not only was unmet need a priority for policies and programs in many developing countries, but cases where women's preferences conflicted with their behavior might be especially revealing of the determining power of men's views. Men's views needed to be taken seriously in the development of interventions to reduce unmet need in Turkey.

The findings showed that withdrawal was learned from peers and that using withdrawal as one's first method had the highest association with current withdrawal use in Turkey.<sup>5,15,18</sup> It was not surprising

the information source was a peer in an environment that reproductive health issues such as FP and sexuality remained hidden and not clearly spoken culturally. When considering in Turkish culture marriage was generally beginning the sex life for women and they experienced first intercourse within marriage, the importance of targeting women and men including adolescents could be understood well. Providing education and counselling about FP, providing information about physiology of reproductive system and discussing withdrawal as a contraceptive option for them before marriage should be a priority.<sup>6,22</sup> On the other hand, programs engaging men could enhance spousal communication, improve gender-equitable attitudes, and increase FP use. Various projects engaged men through multiple strategies including male motivators and peers, mass media, theatre performances, men's groups, sexuality education and religious leaders.<sup>38</sup> According to a study conducted by Öztürk et al. in Kayseri, religious leaders, 'imams', believed that they could contribute to increasing men's acceptance of service to be provided them through increasing their knowledge about FP issues.<sup>39</sup> A systematic review by Hardee et al. identified that developing national policies and guidelines that include men among key considerations in programming for men as FP users.<sup>38</sup> Kabagenyi et al., in their study conducted in Uganda, emphasized that interventions to encourage male contraceptive use do not disempower women and reinforce gender inequalities.<sup>40</sup> On the contrary, Gürsoy explained an unwanted pregnancy due to the failure of withdrawal method use to be terminated by abortion or to continue pregnancy by gender inequality.<sup>41</sup>

## FEMALE-RELATED REASONS

The findings that reflected female-related reasons showed that women continued to use the withdrawal method despite the risk of becoming pregnant and despite the method failure.<sup>5</sup> These findings suggested that couples who wished to use a more effective method may have unmet needs. Ergöçmen and Bozbeyoğlu (2005), in their study with nationally representative sample, emphasized that unmet need was high for more effective method in Turkey.<sup>34</sup> This review revealed that some women did not prefer a

more effective method because of the misinformation about methods, wrong belief about their side effects, not trusting other methods and lack of self efficacy to switch to more effective methods. This finding indicated that although FP is perceived as a woman issue and women were known as FP service users, they were not effective FP service users.<sup>7</sup> Increasing women's educational level could contribute their empowerment and decrease the rate of withdrawal use.<sup>6</sup> Also, improving strategies to provide women to use the method they preferred and to increase self efficacy to switch to more effective methods, to increase women's confidence by providing realistic information on the effects and side effects of effective methods were the other interventions must be done first.<sup>7,14,21</sup> It is thought that all of these will help women become more effective users of FP services by focusing on their unmet needs.

According to the findings of this review, social learning, the first method used and perceptions regarding the side effects of more effective methods during the selection of the first method determined the next preferences strongly.<sup>6,23</sup> In our society, when taking into consideration the exchange of information through social learning, the fact that misinformations regarding effects and side-effects of the methods could be spread through social learning was an undeniable fact. Similarly, in Lebanon, men and women expected pleasure and fulfillment in sexual relations, but they were willing to limit their pleasure to limit their fertility by means they considered safe. Additionally, the most important reason for the continuing practice of withdrawal was fear of side effects from other methods.<sup>42</sup> Save et al., in their study conducted in Istanbul, emphasized that if FP services were provided to couples without counseling the side effects, even a slight problems could be exaggerated and be spreaded among people.<sup>43</sup> They also emphasized that these negative experiences would affect other women's attitudes and beliefs towards effective methods. On the other hand, Darroch emphasized that further reducing side effects of hormonal methods, increasing ease of method use, reducing impacts on breastfeeding and making methods easier to use confidentially were identified among the types of improvements to bet-

ter meet the needs of couples today and in the future.<sup>44</sup>

This review revealed that although some users were persistent withdrawal user, they could not define the days of ovulation.<sup>7,8,24,27</sup> The need for information about the physiology of the reproductive system and about fertile days should not be ignored among persistent withdrawal method users. In this review, only one of the articles stated that the method of withdrawal should be accepted as a method of contraception and that more effective ways persistent withdrawal users could use should be offered.<sup>32</sup> Kelly et al., in their studies conducted in United States and Puerto Rico, identify that health professionals' prejudices about traditional methods were major obstacles to service delivery.<sup>45</sup> Pictures showing the changes in the structure of mucus in fertile and infertile periods, cards which was prepared in order to determine the fertile days and brochures could be an effective training strategy.<sup>42,46</sup>

In this review, only two study addressed the effects of contraceptives on sexual life.<sup>29,30</sup> Whereas this situation appears much more common in our country. It was identified that women ignored effect of contraceptives on sexual life. Kılıç et al. in their studies conducted in Ankara, determined that the women will chose the contraceptive method primarily by its ability to protect pregnancy.<sup>47</sup> They emphasized that these women ignore its negative effect on sexual life and define it as a bearable situation.

## LIMITATIONS

Due to socio-cultural characteristics of the country, marriage was considered the beginning of sexuality in Turkey. It was therefore the articles reviewed were conducted with married women. On the other hand, articles that conducted with only male participants (4 articles) were comparatively less in number. Although male perspective has utmost importance to understand widespread withdrawal use, it was noticeable that studies with male participant were limited. This reflected taboos on sexuality and sexual health issues in our society in which men believe FP was a task of women. Additionally, in the 10 articles focus was mainly on the withdrawal method whereas in the remaining articles the subject was handled within a FP

perspective. Because of the prejudice against use of 'non-effective' methods, it was thought that the relatively small number of studies conducted mainly on the withdrawal method in Turkey may have limited the richness of the results.

## CONCLUSION

This systematic review revealed *male- and female-related reasons* for widespread withdrawal method use in Turkey. Patriarchal mind, incorrect beliefs about side effects of effective methods, perceiving family planning as a task of women, getting information from peers about family planning and lack of communication between spouses was among the male-related reasons. Husband preference, incorrect beliefs about the side effects of effective methods, lack of self-efficacy about switching to another method, getting information from their social environment about family planning was among the female related reasons.

This systematic review showed that the tendency of men not to use family planning services and the insufficient use of these services by women were among the reasons for the widespread use of the withdrawal method. Additionally, both male and female related reasons revealed that gender-based norms affected widespread withdrawal method use. Interven-

tions should be improved to promoting more equitable gender norms related to family planning and to increasing couple communication on fertility and contraceptive use. It was also needed to strengthen programming to engage men as FP users and it was also needed to find solutions to increase women's and men's effective use of FP services.

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*No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.*

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