Male Participation in Contraception in an Eastern Province of Turkey

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Abstract

Objective: The aim of this study was to determine men's knowledge, attitudes and practice towards family planning in a province of north-eastern Turkey.

Materials and Methods: This descriptive research was carried on 801 volunteers amongst men of reproductive age living in a city with a total population of 80,000 men. Data were gathered using a self-administered questionnaire that addressed men's roles, attitudes and behaviors towards family planning.

Results: The most commonly used contraceptives were condom (36.8%) and withdrawal (27.3%) methods in single men. Married men reported relying more on female methods and they were more satisfied with the method they used. The idea of shared responsibility in family planning was more appreciated by single men. The role of family as a source of knowledge about family planning was low in both groups. Married men were more against vasectomy and condom while single men had more negative attitudes towards using hormone pills for men if produced in the future.

Conclusion: Comprehensive projects are needed to improve male participation in family planning, especially in male dominant cultures. This must be seen as a golden key in the reproductive health programs.

Key Words: Attitude, Contraception, Family planning policy, Male participation, North-eastern Turkey

Introduction

Studies have shown that attitudes and behaviors towards family planning differ according to the region, education and marital status (1,2). There has been great

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Nevin Hotun Sahin, Department of Obstetric and Gynecologic Nursing, Sisli 34387, Istanbul, Turkey. Tel: + (90) 212 4400000 / 27082 Fax: + (90) 212 224 4990 E-mail: nevinsahin34@yahoo.com nevinsah@istanbul.edu.tr regional difference in fertility rates between eastern regions (Anatolia) and the rest of Turkey. With a total fertility rate of 3.6, women in eastern part of Turkey have approximately 1.5 times more births than women elsewhere in Turkey (1). Kars City is a relatively undeveloped province of north-eastern Turkey with a total population of 80,000 men. Previous research on family planning consumption in Kars is limited and does not sufficiently address the roles of men.

The importance of men's participation and their responsibilities in reproduction were debated in international conferences, emphasizing that reproductive

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Table1: Theoretical concepts in the study

Variables (Theoretical range)

- a- Age (Year)
- b- Education year (Year)
- c- Occupation (Student / Official / Qualified worker / Unqualified worker)
- d- Marital Status (Single / Married)
- e- Health insurance (Yes / No)
- f- Family Composition (Nuclear / Extended / Broken)
- g- (If) spouse education (Year)
- h- (If) spouse occupation (Housewife / Qualified / Unqualified)
- i- (If) he married, number of Partus / Gravity / Abortus (Number)
- j- Known contraceptive methods (Open ended)
- k- Which method was used during last six month (Open-ended)
- 1- Satisfaction with the used FP methods (Yes / No / Undecided)
- m- Reasons to use of their FP methods (Open ended)
- n- Appropriate contraceptive methods (Open ended)
- o- Sources of knowledge about contraceptive methods (Media / Friends / Health professional / Family)*
- p- Sources of FP counseling (Maternity Child Health and FP Centers / Hospital / Pharmacy / Other)*
- q- Shared responsibility for contraception (Only women / Only men / Both)
- r- Attitudes towards condom (Open ended)
- s- Attitudes towards vasectomy (Open ended)
- t- Attitudes towards men pill and future use if produced (Open ended)

* More than one answer, FP: family planning

and sexual health problems cannot be solved without men's participation and their support (3-5). Participation of men is an important strategy for advancing reproductive health and rights (6-9). Unfortunately, men's access to reproductive health programs and services is limited due to traditional gender roles and women-centered working models (10,11). In addition, men play a central role in male dominant cultures. Husbands often make decisions about family planning, their wives' economic activities and the use of household resources, including for health and school fees. These decisions influence the well-being and prospects of the whole family (5,7).

Although increasing interest was seen in men's knowledge of reproductive health, sexual behavior and the use of contraception, there is limited research on the characteristics and views, attitudes and needs of male clients (12). The existing data on men's views or attitudes and behaviors concerning family planning as an important part of reproductive health is very limited in Turkey (3,7,13).

The aim of this study was to determine men's roles, attitudes and behaviors towards family planning in men living in Kars city. We aimed to find responses for the following research questions:

1. What are the most familiar and the last contraception methods used in men living in Kars city?

2. What are men's views, attitudes and behaviors

towards family planning in Kars?

3. What are the attitudes of man who live in Kars towards male-oriented family planning methods (condom, vasectomy, use of male contraceptive pills if produced in the future)?

Materials and methods

This study was planned as a descriptive research in 2007. The population of this study was consisted of reproductive age men (15 and over) that lived in the city center of Kars, Turkey. During the research period, all volunteer men who were eligible for the study (801) were included. Data were gathered by one of the authors in men's work places and social surroundings like public offices, cafe, park, campus and club house in different districts of Kars. Written ethical approval was obtained from the ethical review board of the Health Directorate of Kars. Men were informed about the aim of the study and information about anonymity, confidentiality, and consent was included in the explanation.

A self-administered questionnaire form was prepared according to the literature and it was revised after a pilot study of 30 men who were not included in the final sampling. Theoretical concepts of the study which were included in "The knowledge, Attitudes and Behavior of Men towards Family Planning Questionnaire" are presented in Table 1. The analysis

	Single N (%)		Married N (%)		P-Value
Mean age (Mean ±SD)	22.8±	3.4	35.6±	9.4	< 0.001
Education					
Illiterate	0	0	2	4	
Literate	3	9	19	3.9	
Primary education	4	1.3	113	23.3	< 0.001
Secondary education	21	6.6	198	40.9	
University	288	91.1	152	31.4	
Employment					
Student	279	88.3	8	1.6	
Worker	9	2.8	62	12.8	
Official	21	6.6	229	47.2	< 0.001
Other	7	2.2	177	36.5	
Retired	0	0	9	1.9	
health insurance					
Insured	212	67.1	382	78.8	0.001
Not insured	104	32.9	103	21.2	< 0.001
Family type					
Nuclear family	214	67.7	327	67.7	0.520
Extended family	102	32.3	156	32.3	0.529
Total	316	39.5	485	60.5	

Table 2: Demographic characteristics of men by their m	marital status
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of the data was performed with the Statistical Package for Social Science for Windows (SPSS for Windows, Client Version 11.9). The descriptive characteristics of men and their partners were presented in frequency and percentage distributions. Chi-square was used to determine statistically significant differrences between single and married men.

Results

Four hundred and five (60.5%) of men in our study were married and 316 (35.5%) were single (never married). The mean age was 22.8 \pm 3.4 in single men group, and 35.6 \pm 9.4 in married men group. Single men were younger (p <0.001) and more educated (p <0.001) than married participants and the number of single men who had health insurance was less (p <0.001). The single men's group was mostly made up of students (Table 2). Condom and with-drawal were the most well known methods in both single and married men. However, single men's knowledge of condom (p<0.001), withdrawal (p<0.001), vasectomy (p=0.032), spermicidal (p=0.022), Norplant (p<0.001), female condom (p<0.001) and diaphragm

(p<0.001) was significantly higher than married group. On the other hand, married men's knowledge of the Intra Uterine Device (IUD) was apparently higher than that of single men (p<0.001) (Table 2).

The most commonly reported methods (the last contraception methods used) were condom and withdrawal in single men. Married men reported more significantly relying on female methods including IUD, oral contraceptives (OCS), injective methods, tubal ligation and spermicidal. In addition, the number of men who reported not using any contraceptive method was higher in the married men's group (p<0.001) (Table 3). A comparison of men's views about the most appropriate contraceptive methods revealed that single men approved condom (p<0.001) and withdrawal (p<0.001) as the best methods for contraception significantly more than married men. On the other hand, oral contraceptive pills (p=0.032), IUD (p<0.001) and tubal ligation (p<0.001) were the most approved methods for married men. In addition, some married men thought that none of the methods were appropriate (p<0.001) (Table 3).

The main reasons for the method of choice repor-

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Contraceptive	Marital	Contraceptive Methods					
Methods	Status	Known		Last Used		Approved	
		N (%)	P-Value	N (%)	P-Value	N (%)	P-Value
Condom	Single Married	306 (96.8) 392 (80.8)	< 0.001	165 (52.2) 130 (26.8)	< 0.001	176 (55.7) 96 (19.8)	< 0.001
Withdrawal	Single Married	287 (90.8) 341 (70.3)	< 0.001	126 (39.9) 93 (19.2)	< 0.001	74 (23.4) 49 (10.1)	< 0.001
Oral Contraceptives	Single Married	214 (67.7) 337 (69.5)	0.640	15 (4.7) 45 (9.3)	0.019	20 (6.3) 53 (10.9)	0.032
Intra Uterine Device	Single Married	143 (45.3) 354 (73.0)	< 0.001	9 (2.8) 128 (26.4)	< 0.001	27 (8.5) 182 (37.5)	< 0.001
Injectables	Single Married	103 (32.6) 188 (38.8)	0.084	0 (0) 10 (2.1)	0.008	5 (1.6) 20 (4.1)	0.059
Tubal ligation	Single Married	127 (40.2) 176 (36.3)	0.297	0 (0) 9 (1.9)	0.014	4 (1.3) 31 (6.4)	< 0.001
Vasectomy	Single Married	125 (39.6) 150 (30.9)	0.032	0 (0) 0 (0)		5 (1.6) 5 (1.0)	0.527
Spermicide	Single Married	80 (25.3) 85 (17.5)	0.022	0 (0) 11 (2.3)	0.007	0 (0) 4 (0.8)	0.158
Norplant	Single Married	75 (23.7) 56 (11.5)	< 0.001	1 (0.3) 2 (0.4)	0.999	4 (1.3) 6 (1.2)	0.999
Female Condom	Single Married	100 (31.6) 47 (9.8)	< 0.001	0 (0) 0 (0)		1 (0.3) 0 (0)	0.395
Diaphragm	Single Married	71 (22.5) 38 (7.8)	< 0.001	0 (0) 0 (0)		0 (0) 0 (0)	
None	Single Married			0 (0) 57 (11.8)	< 0.001	0 (0) 39 (8.0)	< 0.001

Table 3: The known, last used and approved contraceptive methods according to marital status of man in Kars

ted by both single and married men were being reliable, having fewer side effects and being easy to use or find. Reasons for not using family planning methods included planned pregnancy, side effects and being unreliable (Table 4). When we compared the satisfaction with the used contraceptive method between single and married participants, we found out that the married men were significantly more satisfied with the method they used than single men (p<0.001) (Table 5). The attitude of shared responsibility in family planning was more appreciated by single men while married men give more responsibility to their spouses (p<0.001) (Table 4). The main sources of knowledge about family planning were media and friends for single men. However, married men reported health professionals significantly more as a source of knowledge. The role of family as a source of knowledge about family planning was similarly low in both groups (Table 5).

The main sources of family planning counseling for married men were Maternity Child Health and Family Planning Centers (MCHFPC) while single men sought counseling from hospitals and pharmacies. In addition, pharmacies were the most common sources to provide the family planning methods for single men while married men reported that they obtained their family planning methods more frequently from MCHFPC (Table 5).

Single men had more negative attitudes towards hormone pills for men (p<0.001). Married men were significantly more against condom use (p=0.007), vasectomy (p<0.001) and male hormone pills.

Discussion

Men's attitudes, behaviors, and their contribution to the family planning decisions are of great importance. Usually men's participation is underestimated in most of the countries for various reasons (4, 5, 11, 14, 15, 16). Almost all of the married couples in Turkey have been reported to know at least one family planning method (1, 14). Studies of men's participation in family planning have determined that condom, IUDs, OCS and withdrawal were the most well known contraceptive methods among men (14, 17). Similarly, most of the men in the current study knew about condoms as a contraceptive method for men and knew of IUD among methods for women. Single men in our study knew about OCS and other

Male participation in contraception

	Single	Married	P-Value
Reasons of the method choice			
Reliable	163 (52.1)	194 (46.4)	0.030
Less side effects	75 (24.0)	78 (18.7)	
Easy to use or find	53 (16.9)	103 (24.6)	
Hygienic	11 (3.5)	25 (6.0)	
Women responsible	9 (2.9)	11 (2.6)	
Other (only known method, recommended)	2 (0.6)	7 (1.7)	
Total (who used a family planning method)	313 (100)	418 (100)	
Reasons to leave the method			
Wanted pregnancy	0 (0)	41 (21.3)	0.316
Side effects	1 (50.0)	84 (47.7)	
Unreliable	1 (50.0)	19 (10.8)	
Other (Menopause, partner did not want, etc.)	0 (0)	32 (18.2)	
Total (who leaved a family planning method)	2 (100)	176 (100)	

 Table 4: Reasons to choose or leave contraceptive methods in single and married men

new or less known methods such as implants, female condom and diaphragm significantly more than married men did. This finding might be a result of single men using the media more than older married men as a source of knowledge about family planning methods.

Although the rate of awareness about family planning methods is high in Turkey, only 71% of married men reported using family planning methods, and 49.9% of them reported using a modern method. In this study, the rate of using a method by married men was 88.2%, whereas TDHS-2003 study (1) and results of a study done at Northeast Anatolia (14) reported lower rates as 64.5% and 35%, respectively. The finding of the current study might be explained by higher education level of married men in the study than the men living in other parts of Turkey. There are studies that have reported the higher education is, the more family planning method is used (14).

The most common family planning methods used in Turkey were reported to be IUD, condom and withdrawal (1). In this study, it was found that the most known, used and approved method among single men was condom or withdrawal, whereas the most known, used and approved method among married men was the methods used by women (IUD, OCS or condom). It was found that the rate of withdrawal method was quite higher than married group and some other study results, whereas the rate of condom usage was nearly the same (17,18). Surprisingly, the withdrawal method among singles than the married men and the general population (24.4%) in Turkey (1). Withdrawal is an ancient and prevalent form of male contraception the worldwide. Current users emphasized taking responsibility as partners for family planning and protecting their wives from possible adverse effects of contraceptives. Withdrawal should be seen as a valuable choice in a world where increasing method choice, male participation and responsibility taking in reproductive health are all desirable (19). It is suggested further qualitative research about the reasons of common preference for using withdrawal method among men who are well informed about family planning methods, well-educated and young. In Ortayli et al's study (19) advantages reported both by users and non-users of withdrawal were being free from side effects, ease of access and having no cost.

Comparing to the TDHS-2003 (1) results of married men, in the current study single men reported higher approval of condom usage (52.2%), and less approval of OCS and IUD usage. While choosing and deciding on the method, the factors taken into consideration were not being harmful for health, less side effects, safety and convenience in using (20,21). The expectations and reasons' of preference of our group regarding the method they used were consistent with the other studies.

In order to improve the quality of family planning programs, it is very crucial to know the rate of and the reasons to leave contraceptive methods. In Turkey, it was determined that 40% of people using the family planning methods leave the method in future 12 months after the onset of using. The rates of this leaving are 54% for OCS, 79% for injections, %45 for condoms, and 41% for withdrawal method (1). Many studies reported that the reasons to leave contraceptive methods were desire for pregnancy, side

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Table 5: Views and behaviors of men about family planning use by their marital status

	Single	Married	P-Value
Satisfaction with the currently used FP method			
Satisfied	185 (58.5)	340 (71.1)	0.001
Unsatisfied	68 (21.5)	72 (15.1)	
Undecided	63 (19.9)	66 (13.8)	
Responsibility of FP should be on			
Women	64 (20.3)	173 (36.0)	< 0.001
Men	54 (17.1)	58 (12.1)	
Shared	198 (62.7)	250 (52.0)	
Sources of knowledge about FP			
Family	48 (15.2)	57 (11.8)	0.165
Friend	172 (54.4)	195 (40.2)	< 0.001
Media	186 (58.9)	185 (38.1)	< 0.001
Health professional	115 (36.4)	250 (51.5)	< 0.001
Other	31 (9.8)	49 (10.0)	< 0.001
Sources of counseling			
Maternity Child Health and FP Centers	129 (40.8)	323 (66.6)	< 0.001
Hospital	175 (55.4)	188 (38.8)	< 0.001
Pharmacy	129 (40.8)	104 (21.4)	< 0.001
Other	26 (8.2)	42 (8.8)	0.980
Where contraceptive methods provided from			
Maternity Child Health and FP Centers	38 (12.2)	140 (31.0)	< 0.001
Hospital	19 (6.1)	64 (14.2)	
Pharmacy	243 (78.1)	166 (36.8)	
Other (market etc.)	11 (3.5)	80 (17.7)	

FP: family planning

effects, choosing more effective method or getting pregnant despite the family planning method (1,20). In a study done at another city of Northeast Anatolia (Erzurum), it was reported that the most often reason of leaving the condom usage among couples was the dissatisfaction the men (22).

The rate of satisfaction among men is a similar to the rates of two other West-Anatolia cities (20,23). When the couples know less about the family planning methods, they misinterpret that some health problems are due to the used method, and conesquently they prefer ceasing the method. These results reveal the importance of that, qualified family planning counseling will contribute to the better coping of the client and because of sincere concern, they will feel more motivated and they will easily get in touch in case of a need for help or counseling (20,24).

Similar to our findings, previous studies in Turkey established that the main sources of information for reproductive health among Turkish men were television/radio, friends, magazines/ newspapers and the internet followed by the health professionals and family (2,17,25,26,27). It was an expected result that young and single men had more relationship with friends and use media more than older married men. Therefore, the media should be used appropriately as one of the main sources of information (11, 12, 13, 14, 18, 28).

Parents of young, high educated single men were expected to be more informative about FP, than the parents of older married men. Surprisingly, the role of family as a source of knowledge about family planning was similarly low in single and married groups. This finding means that, although the generations change, talking about FP with the children is still perceived as a social taboo in families. In a study conducted on 1537 male in Turkey, the role of family/parents as a source of knowledge in each age group was found very low (5-13.3%). The rate of following the publications about sexuality in internet was reported to be 43% in young men in Turkey (2). In the same study, 53% of women showed their husbands as their main source of knowledge (2). However, husbands' knowledge of family planning

and reproductive health is controversial. These data particularly demonstrate the importance of education and counseling about family planning in men. The philosophy of shared responsibility in family planning is a key component in the solution of reproductive health problems. The importance of men's participation in reproductive health is incontrovertible (4, 16). In many societies, family planning is considered as a service only for women and the services are mainly provided for the women. Our study had a consistent finding with some studies regarding the view that among singles, highly educated and young group, FP was considered as a responsibility both for men and women (18,26). The reason of low rate of married men perceiving the FP as a woman's responsibility might be due to the male-dominant, social and cultural characteristics. The reason of that the men in this group approved and preferred to use female methods might be because of the same characteristics as well.

The sources of obtaining modern FP are very important for the administrators and disciplines taking responsibility in providing FP services and counseling. According to the data provided by TDHS-2003 (1), the couples in Turkey mostly obtain the FP methods at MCHFP centers (32.9%), pharmacies (24.8%) and state hospitals (11.2%). The results of our study are consistent with results of TDHS-2003 (1). Comparing the marital status, it was determined that married men provided their FP method from MCHFP services while single men mostly preferred pharmacies. It is evident that in Turkey, pharmacies have an important role in obtaining FP method as well. The fact that the pharmacists do not get any education regarding family planning reveals the necessity for placing the FP courses in the curriculum of pharmacy faculty (29).

Consistent with some study findings, despite the desire of men for counseling for FP, the rate of applicants is very low (26). That finding reveals that there is need of re-organizing the service of family planning. In Turkey, despite MCHFP provides counseling without taking into consideration the marital status, it is clearly seen that the services and even the name of centers (Maternity-Child Health and FP center) are mostly focused on women, and thus single men are undermined (10,11). The reason of low rate demand for knowledge and counseling regarding FP, and applying to FP clinics by men are due to the views of men about these units. Negative views and attitudes towards methods impeded the use of con-

traceptive methods (18, 21, 30). Reproductive health services should focus on changing these negative attitudes towards male oriented methods (condom, vasectomy) in men. It has been shown that contraceptive use by men increases when they do not have negative attitudes towards such methods.

Although 8 out of 10 Turkish people know about condoms, the rate of condom use is low (67.2%) among the general population (1). Increasing the rates of condom use is a very important implementation for reproductive health programs due to its unique advantages of protection against the sexually transmitted diseases (STD's) and HIV/AIDS for especially younger population. Young people, who constitute 40% of the Turkish population, are an important group at risk of HIV infection in Turkey (31). The finding of Mistik et al's (2003) study, which was conducted in a city of Central Anatolia (Kayseri), supports our results about the attitudes towards condom in men living in Kars (26). Appropriate FP counseling strategies and special service models are needed to increase the awareness and condom use in the eastern region cities (4, 15, 16, 32). Although surgical sterilization is prevalent all over the world, vasectomy rates in Muslim countries are obviously lower than elsewhere because of religious reasons. Similarly, vasectomy is the least known and the least used (%01) method in Turkey (1, 11, 14, 21, 26, 33, 34, 35). Choosing a permanent surgical contraceptive method for men is not viewed as appropriate in Turkish traditional culture and Muslim religion. Similarly, only 14% of the men in a study from Zimbabwe thought that vasectomy should be used for contraception and none of them wanted to have a vasectomy (36).

Contraceptive methods for men are limited to coitus-related methods like the condom and withdrawal or a permanent method like vasectomy. New reversible methods independent of coitus would increase male participation in contraception and should take the cultural and religion norms into attention (11, 16, 26, 37). While research about a male hormone pill for contraception continues in various countries, more interest has been attached to the importance of men's attitudes towards this method in different cultures (16,38). In a multicentre study conducted in Edinburgh, Cape Town, Hong Kong and Shanghai, more than half of the men (%44-83) reported that they would definitely or probably use a male daily pill (39). However, studies of Turkish men revealed that most men (%75-78) in Turkey are against hormonal methods and pills for men (16, 23, 26). Reasons for not using pills were similar to the literature, emphasizing its probable harmful effects and difficulties in their use (16, 23, 26). Another reason not to use hormone pills for men is the belief about that the responsibility of FP should be on women. On the other hand, men who approved the use of male pills stated that they would use these pills to share the responsibility of family planning.

Nevertheless, some limitations of our study are that it had a non random convenience sample rather than a random population based sample. Therefore, the results of the study are not representative of all men in Kars instead of our large sample size. Besides, our results should be evaluated considering the fact that the single men were younger and highly educated than married ones. In addition, further studies are needed to assess the facts underlying the results about attitudes with qualitative methods. However, when the difficulties related to traditional taboos for men's talking about family planning are considered, the present study provides valuable information with its large sample.

Comprehensive projects are needed to improve the male participation in especially male dominant cultures like Turkey. This also must be seen as a golden key in the reproductive health programs. Therefore, reproductive health programs should be developed and become widespread for men. Schools, universities, work places and military could be a start point to reach the target male population for the implementation of reproductive health programs (16,18).

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References

- 1. Turkey Demographic and Health Survey (TDHS-2003), Hacettepe University Institute of Population Studies, Ankara, 2004.
- Society for Sexual Education, Treatment and Research-SSETR, Sexual Health & Reproductive Health Research Project, 2006.
- 3. Fourth World Conference on Women, Beijing Declaration, Beijing, 1995.
- International Conference on Population and Development-ICPD, Programme of Action. Cairo, 1994.
- UNFPA United Nations Population Fund, Programme and Activities 2004, UNFPA State of World Population, Partnering with Boys and Men, 2005.
- 6. Erbil N, Top F. University students' knowledge, attitude and behaviors about family planning. 3rd

International Congress of Reproductive Health & Family Planning. Ankara, 2003: p. 21.

- Gokengin D, Yamazhan T, Ozkaya D and Aytug S. Sexual Knowledge, Attitude and Risk Behaviors of Students in Turkey. Journal of School Health 2003; 73: 258-64.
- Karaduman F, Terzioglu F. Determination the knowledge and practices of Hacettepe University last grade students related to emergency contraception. International Congress of Reproductive Health & Family Planning. Ankara, 2004: 71.
- Oksuz E, Malhan S. Unprotected sex relationship frequency and impact factors. International Congress of Reproductive Health & Family Planning. Ankara, 2004: 35.
- 10. Aksu H, Gunes Z, Sarikaya S. Aile Planlamasi Danismanlik Hizmetini Etkileyen Faktorlerin Incelenmesi [Determining factors effecting family planning counselling services]. 4th International Congress of Reproductive Health & Family Planning. Ankara, 2005: 51.
- Ozcebe H, Akin A. Women and men unequity and participation of men in reproductive health. 3rd International Congress of Reproductive Health & Family Planning. Ankara, 2003: 85-91.
- 12. Ceylan Y, Tekbas A. Complementary approach to family planning; participation of men. Saglik ve Toplum [The Journal of Health and Society] 2000; 10: 16-21.
- Ungan M, Yaman H. AIDS knowledge and educational needs of technical university students in Turkey. Patient Education and Counseling 2003; 51: 163-7.
- 14. Can N. Male involvement in family planning in Turkey [Dissertation], Ankara University, 2001.
- International Planned Parenthood Federation (IPPF). Target: adolescent boys. Forum 2001; 15: 10. Retrieved August 2006 from http://www.ippfwhr.org.
- 16. Ardahan M. Male participation in the reproductive health: The contraceptive pills for men. 4th International Congress of Reproductive Health & Family Planning. Ankara, 2005: 51.
- 17. Yanikkerem E. The investigation university student's level of knowledge on family planning sexually transmitted disease and sexual experience. 3rd International Congress of Reproductive Health & Family Planning. Ankara, 2003: 9.
- 18. Ozaydin Gulersoy AN, Aslan YB, Elshair AA, Hashim MA. A descriptive study of university students about their knowledge on reproductive health and assessment of their needs. The 8th Congress of the European Society of Contraception. 2004: 266.
- 19. Ortayli N, Bulut A, Ozugurlu M, Cokar M. Why withdrawal? Why not withdrawal? Men's perspectives. Reproductive Health Matters 2005; 13: 164-73.
- 20. Aytekin NT, Pala K, Irgil E, Aytekin H. Family planning choices and some characteristics of coitus interruptus users in Gemlik, Turkey. Women's Health

Issues 2001; 11: 442-7.

- Mannan HR. Factors in contraceptive method choice in Bangladesh: goals, competence, evaluation and access. Contraception 2002; 65: 57-364.
- 22. Pasinlioglu T, Bulbul F. Ciftlerin Aile Planlamasi Yontemlerini Birakma Nedenleri [Couples' reasons for leaving family planning methods]. 3rd International Congress of Reproductive Health & Family Planning. Ankara, 2003: SB-17.
- 23. Sayan A, Uludag C, Sahin S, Altunisik R. Erkeklerin Kontraseptif Yontem Kullanimindaki Rolleri, Dusunceleri, Tutum ve Davranislari [Men's roles, attitudes and behaviours towards contraceptive use]. 3rd International Congress of Reproductive Health & Family Planning. Ankara, 2003: SB-12.
- 24. Turkistanli E. Aile planlamasi konusunda kacirilmis firsatlarin yakalanmasinda hemsirenin danismanlik rolu. [Nurses' role of counselling to catch the missed opportunities about family planning]. Hemsirelik Ebelik Egitim ve Uygulamalarinda Kalite Sempozyumu [Quality in Nursing & Midwifery Education and Practice Symposium]. Kayseri, 1998:, 345-55.
- 25. Gunay T, Kilic B, Kartal M, Sahin A. Seferihisar Jandarma Muharebe Er Eğitim Taburu'ndaki erlerin aile planlaması konusundaki bilgi düzeyleri. [Soldiers' knowledge of family planning in Seferihisar]. 3rdInternational Congress of Reproductive Health & Family Planning. Ankara, 2003.
- 26. Mistik S, Nacar M, Mazicioglu M, Cetinkaya F. Married men's opinions and involvement regarding family planning in rural areas. Contraception 2003; 67: 133-7.
- 27. Sankazan S. Ankara ili Elmadag ilcesi Deliler Koyundeki evli erkeklerin aile planlamasi ile ilgili bilgi ve tutumlarinin degerlendirilmesi [Evaluation of the knowledge and attitudes of married men living in the Deliler village of Ankara]. Ankara University Institute of Health Sciences Master Thesis, Ankara, 2001.
- 28. Mogilevkina I, Tyden T, Odlind V. Ukrainian medical students' experiences, attitudes, and knowledge about

reproductive health Journal of American College Health 2001; 49: 269-72.

- 29. Coskun A. Universitelerin tip, hemsirelik, ebelik ve eczacilik temel egitim programlarinda aile planlamasi egitiminin yeri [The place of family planning education in the curriculums of the faculty of medicine, nursing and pharmacist schools]. FNHYO Hemsirelik Dergisi, [The Journal of FNHYO] 1996; 141-9.
- Siegel DM, Klein DI, Roghmann KJ. Sexual behavior, contraception, and risk among college students. Journal of Adolescent Health 1999; 25: 336-43.
- 31. TAPD-Türkiye Aile Planlamasi Dernegi Bilgi Bankasi. Gençlerin Cinsel Sağlık Konularında Bilgi Düzeylerinin Arttırılması Projesi [The project of improving sexual health knowledge in youth], 2006. [Cited 2 Dec 2006.] Available from URL: http://www.tapd.org.tr/bilgi bank.htm
- Moushiroud AP. Sexuality education: Worldwide implementation. Society for Sexual Education, Treatment and Research- SSETR. 2000.
- National Institute of Child Health and Human Development (NICHD), Facts about Vasectomy Safety.
 2006. [Cited August 17 2006.] Available from URL: http://www.nichd.nih.gov/publications/pubs/vasect.htm
- 34. Brechin S, Bigrigg A. Male and female sterilization. Current Obstetrics & Gynecology 2006; 16:39-46.
- Scott A, Glaster A. Contraceptive sterilization: global issues and trends. Bulletin of the World Health Organization 2003; 81: 31-8.
- Mbizvo MT, Adamchak DJ. Condom use and acceptance: a survey of male Zimbabweans. The Central African Journal of Medicine 1989, 35: 418-28.
- Kadioglu TC. Erkeklere dogum kontrol hapi geliyor, [Birth control pills are coming for men] 2006, [Cited 22 March 2006.] Available from URL: http://www.haber3.com/haber.php?haber_id=93439
- Waites G. Development of methods of male contraception: impact of the World Health Organization Task Force. Fertility and Sterility 2003; 80: 1-15.
- 39. Anderson RA, Baird UT. Progress towards a male pill. IPPF Medical J Bulletin 1997; 3: 3.