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ORIGINAL ARTICLE / ÖZGÜN ARAŞTIRMA

The awareness and use of the female condom among women at low and high risk for sexually transmitted infections in Ankara, Turkey

Cinsel yolla bulaşan enfeksiyonlar açısından yüksek ve düşük riskli kadınların kadın kondomu farkındalık ve kullanma durumları, Ankara, Türkiye

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ABSTRACT

Objectives: The aim of this study was to determine the levels of awareness on female condom use in Ankara among women having low and high risk for sexually transmitted infections.

Materials and methods: This descriptive study was performed between 1 March 2007 and 1 May 2007. High risk group for sexually transmitted infections were sex workers that presented to the Hospital of Venereal Disease (n=186), and the low-risk group was women that applied to a family planning outpatient clinic (n=190). Totally, 376 women completed a questionnaire administered face-to-face. Obtained data were analyzed statistically.

Results: The mean age was 40.04±9.33 years, the mean duration of work was 12.32±7.36 year, 42.5% of women had sexually transmitted infections any time of life, mean number of intercourses was 12.30±6.66 per day; 59.8% currently used oral contraceptive, 30.6% male condom, 5.5% tube ligation, 61.3% of women were familiar about female condom, only eight women (4.3%) used in high risk groups. The mean of age of low-risk women was 32.23±8.18 year, 5.8 of women worked out of home, 50.5% of women were graduated primary school, 2.1% of women had sexually transmitted infections any time in life, currently used contraceptives were 29.2% male condom, 28.7% withdrawal, 25.3% intra uterine devices, 18.9% of women were familiar about female condom. In all, 69.4% of the high-risk group and 30.5% of the low risk groups' women reported that they would use the female condom if counseling concerning its use were provided.

Conclusion: Female condom awareness was very low among the studied women. However, if they receive counseling, a half of women can use female condoms.

Key words: Female condom, awareness, usage, sexual transmitted infections, sex worker.

ÖZET

Amaç: Çalışmada Ankara İl'inde cinsel yolla bulaşan enfeksiyonlar açısından yüksek ve düşük riskli kabul edilen iki farklı kadın grubunda kadın kondomunu duyma ve kullanma durumlarının araştırılması amaçlanmıştır.

Gereç ve yöntem: Tanımlayıcı tipte planlanan çalışma 01 Mart-01 Mayıs 2007 tarihleri arasında yürütülmüştür. Cinsel yolla bulaşan enfeksiyonlar açısından yüksek riskli grup kapsamında Deri ve Zührevi Hastalıklar Hastanesi kayıtlı olan seks çalışanları (n=186), düşük riskli grup olarak bir Aile Planlaması Ünitesine başvuran (n=190) kadınlar ele alınmıştır. Katılımcı 376 kadından yüz yüze görüşme yöntemi ile bir anket formu ile veriler toplanmış ve istatistiksel analizler yapılmıştır.

Bulgular: Yüksek risk grubunda yer alan kadınların yaş ortalaması 40.04±9.33, ortalama çalışma süreleri 12.32±7.36 yıldır, %42.5'i daha önce cinsel yolla bulaşan bir enfeksiyon geçirdiğini bildirmiştir, günlük ortama cinsel ilişki sayısı 12.30±6.66'dır, kontraseptif yöntem olarak %59.8'i hap, %30.6'sı erkek kondomu ve %5.5'i tüp ligasyonunu tercih etmektedir, %61.3'ü kadın kondomunu duyduğunu, %4.3'ü (8 kişi) kadın kondomunu kullandığını belirtmiştir. Düşük risk grubunda yer alan kadınların ise yaş ortalaması 32.23±8.18 yıl olup, gelir getiren bir işte çalışma oranı %5.8'dir, %50.5'i ilkokul mezunudur, %2.1'i daha önce cinsel yolla bulaşan bir enfeksiyon geçirdiğini bildirmiş, kontraseptif yöntem olarak %29.2'u erkek kondomu, %28.7'si geri çekme, ve %25.3'ü rahim içi aracı tercih etmektedir, %18.9'u kadın kondomunu duyduğunu, %1.6'sı (3 kişi) kadın kondomunu kullandığını belirtmiştir. Bilgi, danışmanlık verildiği takdirde yüksek risk grubunun %69.4'ü, düşük risk grubunun %30.5'i kadın kondomunu kullanabileceklerini belirtmiştir.

Sonuç: Araştırmaya katılan kadınların kadın kondomu konusundaki farkındalık oranlarının düşük olduğu ancak, bilgi almaları durumunda her iki kadından biri kadın kondomu kullanabileceklerini belirtmiştir.

Anahtar kelimeler: Kadın kondomu, farkındalık, bilme düzeyi, kullanma düzeyi, cinsel yolla bulaşan enfeksiyonlar, seks çalışanı.

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INTRODUCTION

The global burden of morbidity and mortality associated with sexually transmitted infections, and unwanted pregnancies is an important public health issue. For example, HIV/AIDS and other sexually transmitted infections cause 12.9% of the burden of disease in disability-adjusted life years. Unsafe sex is the second most frequent cause of the global burden of disease.[1] Every day 6800 people are infected with HIV. Many more are infected on a daily basis with other sexually transmitted infections that can cause serious illnesses, infertility, neonatal problems, and cancer. Most sexually transmitted infections and the associated death and disability could be prevented with correct and consistent use of condoms. Indeed, male and female condoms are central to the effort to curtail the spread of HIV by 2015, as called for by the United Nations Millennium Goals.[2]

The female condom is a relatively new device that allows women to choose a barrier method with dual protection against unwanted pregnancy and sexually transmitted infections transmission when compared with male condom.[3-5] Sale of the female condom in Europe began in the UK in 1992 and has been approved by the USA Food and Drug Administration in 1993.[3] The female condom has been available in Turkey since 2001, but hasn't been incorporated into the national family planning program. Female condom is not distributed free by the national family planning program as IUDs, male condoms and pills, it is only sold only by pharmacies so that the users pay for it.[6,7] According to The Turkish National Demographic and Health Survey of 2008, while 92% of women had heard about the male condom, only 17% had heard about the female condom.[7]

In vitro studies have shown that the female condom provides an effective barrier to the passage of even the smallest sexually transmitted infections-causing microorganisms.[2,3,8] Research has shown that when compared to other barrier methods the female condom is more effective in preventing pregnancy and the transmission of sexually transmitted infections. Women can take control by using the female condom.[2,9,10] By early female condom introduction efforts, commercial sex workers were targeted, because they are at high risk for sexually transmitted infections and obviously need for a female initiated method of protection; however, all women at risk of contracting sexually transmitted infections and/or becoming pregnant can benefit from use of the female condom. It is particularly suitable for women that are unable to depend on the male condom for a variety of reasons and those that require dual protection.[4] Although both types of condoms usually require cooperation between partners, with a greater opportunity the female condom may enable women to engage in safer sex, for example with men that refuse to use the male condom.[2] With use of barrier methods (female condom) women gain the ability to control their reproductive health. The female condom is usually referred to as a female-initiated method, rather than a female-controlled method.[3,11,12] The WHO and UNAIDS encouraged its introduction as an additional tool for protecting sexual and reproductive health.[3]

UNFPA is committed to intensifying efforts by scaling up female condom programming to include at least 23 countries through the Global Female Condom Initiative.[2] In 2007 only 26 million female condoms were distributed worldwide, as compared to 11 billion male condoms.[9] In total, 75.000 female condoms were sold in pharmacies in Turkey in 2007.[6] Acceptance of the female condom varied from 2% to 98% of women and men in various countries and cultures.[3,8,11-13] The number of female condom users worldwide is steadily growing, as well as in Turkey; however, this increase was not expected because male condoms are more readily available at Turkish family planning clinics, and use of the female condom and male acceptance of the female condom can be difficult.

From 2001 to the present, the female condom did not attract much attention from the Turkish scientific community; in fact, studies focusing on the female condom have not been conducted in Turkey. As such, the present descriptive study aimed to assess the current level of awareness and use of the female condom among women in Ankara at low and high and risk of contracting sexually transmitted infections.

MATERIALS AND METHODS

Study group

This descriptive study included 190 registered sex workers that presented to the Municipal Hospital of Dermatology and Venereal Disease between 1

March and 1 May 2007. According to the Public Hygiene Law, gynecological examinations are performed and cervical specimens are repeated weekly. These 190 sex workers constituted the sexually transmitted infections high-risk group. The sexually transmitted infections low-risk group included 190 women that presented to community-based healthcare center family planning services. Low-risk group women were the first 190 women of the applicant family planning services at the same period. After providing detailed information about the study, verbal consent was provided by each participant. Four women in the high-risk group didn't want to participate to the study, 376 (98%) of the women completed a questionnaire that was administered face to face.

Statistical analysis

Comparisons between the 2 groups were made using the chi-square test. SPSS v.11.0 was used for statistical analysis. A p value of 0.05 was considered statistically significant.

RESULTS

Data obtained from 186 women in the high-risk group and from 190 women in the low-risk group were analyzed retrospectively. Some descriptive characteristics of these women are shown in Table 1.

Table 1. Study groups' demographics.

Characteristics	The Risk of Sexually Transmitted Infections						Chi-square test and p value
	High		Low		Total		
	n	%	n	%	n	%	
Age Group (years)							
≤29	26	14.0	76	40.0	102	27.1	
30-39	66	35.5	79	41.6	145	38.6	$\chi^2 = 55.39$
40-49	62	33.3	29	15.3	91	24.2	**p = 0.000**
≥50	32	17.2	6	3.2	38	10.1	
Level of Education*							
Illiterate	23	12.4	8	4.2	31	8.2	
Literate	6	3.2	4	2.1	10	2.7	$\chi^2 = 9.24$
Primary school graduate	92	49.5	96	50.5	188	50.0	**p = 0.026***
Secondary school graduate	22	11.8	25	13.2	47	12.5	
High school graduate	39	21.0	50	26.3	89	23.7	
University degree	4	2.2	7	3.7	11	2.9	
History of sexually transmitted infections							
Yes	79	42.5	4	2.1	83	22.1	$\chi^2 = 89.03$
No	107	57.5	186	97.9	293	77.9	**p = 0.000**
Current Contraceptive Use							
Yes	147	79.0	180	94.7	323	85.9	$\chi^2 = 20.45$
No	39	21.0	10	5.3	53	14.1	**p = 0.000**
Current Contraceptive Method**							
Oral contraceptive	88	59.8	26	14.6	114	35.1	
Condom	45	30.6	52	29.2	97	29.8	$\chi^2 = 119.28$
Withdrawal	-	-	51	28.7	51	15.7	**p = 0.000**
Intra-uterine device	5	3.4	45	25.3	50	15.4	
Sterilization	8	5.5	2	1.1	10	3.1	
Injectable contraceptive	1	0.7	2	1.1	3	0.9	
TOTAL	186	100.0	190	100.0	376	100.0	

*The literate and illiterate groups, and the upper high school graduation group were combined for statistical analysis.

**The oral and injectable contraceptive groups were combined for statistical analysis. Two women in the family planning group didn't indicate the contraceptive used.

The mean of age was 40.04±9.33 year, the mean of duration in this work was 12.32±7.36 year, 49.5% of women were graduated primary school, 42.5% of women had STI any time of life, intercourses a day was 12.30±6.66, 66.7% of women denoted that every client used male condom, currently used contraceptives were 59.8% oral contraceptive, 30.6% male condom, 5.5% tube ligation, 61.3% of women were familiar about female condom, only eight women used in high risk groups. The mean of age was 32.23±8.18 year, 5.8 of women worked out of home, 50.5% of women were graduated primary school, 2.1% of women had STI any time of life, currently used contraceptives were 29.2% male condom, 28.7% withdrawal, 25.3% intra uterine devices, 18.9% of women were familiar about female condom, only three women used in low risk groups.

In all, 39.9% of the women (61.3% of the high-risk groups' women and 18.9% of the low risk groups') had heard about the female condom. The primary source of information was different in the 2 groups. While the women in the high-risk group heard about the female condom from healthcare professionals, the women in the low-risk group heard about it on TV and in newspapers/magazines. In total, 69.4% of the high-risk group and 30.5% of the low risk groups' women reported that they would use the female condom if counseling concerning its use was provided (Table 2).

Eight women (4.3%) in the high-risk group and 3 women (1.6%) in the low-risk group had used the female condom, but none of the women in either group was currently using it.

Awareness of the female condom increased with the level of education both group (low and high risk). Age group in the high-risk group also associated factors with awareness of the female condom (Table 3).

Table 2. Distribution of some of the characteristics of the participants' knowledge of the female condom.

Characteristics	The Risk of Sexually Transmitted Infections						
	High		Low		Total		
	n	%	n	%	n	%	Chi-square test and p value
Had heard of female condom							
Yes	114	61.3	36	18.9	150	39.9	$\chi^2 = 70.27$
No	72	38.7	154	81.1	226	60.1	**p= 0.000**
Sources of information's female condom*							
Friends	41	36.3	9	28.1	50	34.5	
Health professionals	57	50.4	8	25.0	65	44.8	$\chi^2 = 25.54$
Media	7	6.2	13	40.6	20	13.8	**p= 0.000**
Others	8	7.1	2	6.3	10	6.9	
Willingness to use the female condom if provided counseling about its use							
Yes	129	69.4	58	30.5	187	49.7	$\chi^2 = 60.99$
Undecided	12	6.5	50	26.3	62	16.5	**p = 0.000**
No	45	24.2	82	43.2	127	33.8	
TOTAL	186	100.0	190	100.0	376	100.0	

*The percentages were calculated according to the had heard of female condom response

Table 3. Awareness of the female condom among the participants, according to some characteristics.

Characteristics	The Risk of Sexually Transmitted Infections								Total			
	High				Low							
	Had heard of female condom				Had heard of female condom				Had heard of female condom			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Age Group (years)												
≤29	20	17.5	6	8.3	14	38.9	62	40.3	34	22.7	68	30.1
30-39	47	41.3	19	26.4	17	47.2	62	40.3	64	42.7	81	35.8
40-49	35	30.7	27	37.5	4	11.1	25	16.2	39	26.0	52	23.0
≥50	12	10.5	20	27.8	1	2.8	5	3.2	13	8.6	25	11.1
	χ^2 =13.66, **p = 0.003**				χ^2 =0.87, **p =0.831**				χ^2 =3.76, **p =0.288**			
Level of Education*												
Illiterate	12	10.5	11	15.3	-	-	8	5.2	12	8.0	19	8.4
Literate	1	0.9	5	6.9	-	-	4	2.6	1	0.7	9	4.0
Primary school graduation	50	43.9	42	58.3	12	34.3	84	54.5	62	41.3	126	55.8
Secondary school graduation	17	14.9	5	6.9	7	20.0	18	11.7	24	16.0	23	10.2
High school graduation	30	26.3	9	12.5	15	41.7	35	22.7	45	30.0	44	19.5
University degree	4	3.5	-	-	2	5.6	5	3.3	6	4.0	5	2.2
	χ^2 =13.28, **p =0.004**				χ^2 =11.12, **p =0.011**				χ^2 =12.48, **p =0.006**			
History of sexually transmitted infections												
Yes	49	43.0	30	41.7	1	2.8	3	1.9	50	33.3	33	14.6
No	65	57.0	42	58.3	35	97.2	151	98.1	100	66.7	193	85.4
	χ^2 =0.03, **p =0.860**				χ^2 =0.09, **p =0.755**				χ^2 =18.39, **p =0.000**			
TOTAL	114	100.0	72	100.0	36	100.0	154	100.0	150	100.0	226	100.0

*The literate, illiterate groups, and high school, university graduation groups were combined for statistical analysis.

DISCUSSION

The results of the present study show that 39.9% of the participants knew about the female condom and, as expected, more women in the high-risk group knew about the female condom than in the low-risk group (Table 2). A search of the literature revealed that most studies on the female condom were conducted in American, Africa, and Asia.[5,10,12,14-18] According to these studies, awareness and use of the female condom in those countries is higher than in Turkey, based on the present study's results. In Lusaka, Zambia most participants in a study (87%) had heard of the female condom and nearly 2% used only the female condom during the previous year.[17]

Where the women first obtained knowledge about the female condom differed between the two groups. While the high-risk group women learned about the female condom from healthcare professionals, the low-risk group women learned about if from TV and newspapers/magazines (Table 2). A study conducted in Nigeria reported that 80% of 850 participants had knowledge about the female condom, and that the majority learned about it for the first time through the mass media (40%), followed by healthcare workers (34%), friends (23%), and their sexual partners (3%). Only 11.3% of the participants had experience using the female condom.[11]

In the present study only 11 of the participants (2.9%) had used the female condom (4.3% in the high-risk group and 1.6% in the low-risk group), none of the women were currently using the female condom, and 29.8% of all the participants were currently using the male condom. Many studies have reported that the male condom is more acceptable than the female condom. Worldwide, acceptability of the female condom varies according to setting and population,[11] ranging from 2% to 96%.[12,18,19] Use of the female condom has increased in popularity in over 70 countries, including the USA, Zimbabwe, and Ghana. A study conducted in the US reported that 79% of 1159 female STI clinic patients used the female condom at least once, often multiple times.[10] A limited number of studies have been conducted in Europe and other western countries. A study similar to ours that included an extremely small number of participants (108 females and 54 males) that present to the AIDS Unit of the National Health Services in Italy during a 1-year period reported that approximately 25% of males of females knew about the female condom. Among those that knew about the female condom, the main sources of knowledge were newspapers, magazines, friends, and televisions.[8] A study conducted in Spain with 45 heterosexual couples reported that the vast majority of the participants had heard about the female condom, but claimed to know very little about the method, and barely one-third had have ever seen one.[13]

Despite the very low rate of female condom use among the women in both groups in the present study, reported that they would be willing to try it if offered counseling. Intention to use a particular contraceptive method is an important predictor for use of that method in the future. According to a study that included 280 African-American inner city women, age, multiple sexual relationships, having knowledge about the female condom, and level of education were potential markers of female condom use. Having multiple sex partners was observed to be a statistically significant positive factor associated with female condom use. Having knowledge about the female condom and level of education were directly correlated with female condom use, and there was an inverse correlation between age and female condom use, with younger women more likely to use the female condom.[20] When use of the female condom is positively encouraged many women find it acceptable and use it consistently as a barrier method.[21]

In conclusion, the present study shows that the female condom is limited known, however, the most important result is that almost 49.7% of the participants (69.4% in the high-risk group and 30.5% in the low-risk group) reported that they would use the female condom if provided counseling about its use. All sexual intercourse without condom use is considered unsafe. The male condom is used more frequently than the female condom. The female condom is a female-controlled alternative barrier method. Any effort to encourage use of the female condom made by healthcare professionals helps women increase their awareness of the female condom and increases its acceptability. Behavioral interventions that promote both female and male condoms can increase barrier use.[10]

The limitation of this study sample size was limited and descriptive additional research including larger samples and experimental educational designs is needed. The main objective of study was cross tabulations of different risk group women's awareness of female condom. But study groups low and high risk groups for sexually transmitted infections were different the distribution of socio-demographics characteristics age group, education level, history of sexually transmitted infections, current contraceptive method etc. These were caused confounder as age, education level etc. Community based study should be conducted eliminated these confounders.

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