

*Full Length Research Paper*

# Vaginal douching practice in Eskisehir in Turkey

Didem Arslantas<sup>1\*</sup>, Hatice Karabagli<sup>2</sup> and Filiz Koc<sup>1</sup>

<sup>1</sup>Department of Public Health, Medical Faculty, Eskisehir-Osmangazi University, Meselik-Eskisehir, 26480, Turkey.

<sup>2</sup>Family Health Care Center (No. 2) Eskisehir, Turkey.

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The objective of the study was to identify the vaginal douching habits and the factors that would have a connection with this practice in women from Eskisehir Province in Turkey. This descriptive and cross-sectional study was conducted from 1 May to 30 June, 2005. In present study, any sampling technique was not used. The subjects were women belonging to the 15 - 49 age groups who were admitted to No. 2 Family Planning Center and Sultandere Primary Health Care Center. A survey containing such questions about the socio-demographic and reproductive characteristics was conducted on these women via a face-to-face interview method. Among the statistical tests, chi-square test and logistic regression analysis were utilized. A total number of 503 women with an average age of  $33.18 \pm 7.50$  were attended at the health center. Vaginal douching was performed in 47.7% women and the most common the method was cleansing (66.6%) and post-intercourse (71.8%). The information about these methods was obtained mostly from their mothers (31.6%). In accordance with the results obtained from the study, the vaginal douching practice is a widespread conventional attitude among women and should be given the necessary importance. It was concluded that it is necessary to provide health education for women who state that they get information concerning the practice mostly from their mothers and this wrong attitude change needs to be corrected. Since vaginal lavage is directly linked with low education levels and the state of unemployment, it is resolved that such measures should be taken to increase the socio-economic levels of women. It is also concluded that special importance should be attached to the health education of the primary health care profession concerning the vaginal lavage.

**Key words:** Vaginal douching, practice, attitude, knowledge, Turkish women.

## INTRODUCTION

Vaginal douching (VD) is the process of intravaginal cleansing with a liquid solution (Martino, 2002; Simpson, 2004). Social, cultural and educational factors influence douching practices. Women in different parts of the world gave similar reasons for their varied douching practices (Heng, 2010; Cottrell, 2010). The most common reasons are: 1) to enhance sexual experience through sensations of vaginal dryness, tightness or warmth; 2) to cleanse the vagina before, after, or between acts of intercourse; to treat gynecologic diseases; 3) to prevent sexually transmitted infections and 4) to restore and tighten the vagina after delivery (Brown, 2000).

Vaginal douching has been linked to a number of adverse effects, including increased risk for pelvic

inflammatory disease (PID), ectopic pregnancy and sexually transmitted diseases (STDs) (Ness, 2002). Douching increases the risk of acquiring bacterial vaginosis and this condition has been implicated strongly as a cause of preterm delivery. Among women who douche monthly or more often, alterations in vaginal pH and flora increase the risk of vaginal infections, particularly bacterial vaginosis (Martino, 2002; Zhang, 1997; Ness, 2002; Lowe, 2006). The purpose of this study was to evaluate the popularity of douching behaviours in Eskisehir in Turkey women and to assess the distribution of this practice with demographical, behavioural and medical characteristics.

## MATERIALS AND METHODS

This descriptive and cross-sectional study was conducted from

\*Corresponding author. E-mail: [adidem@ogu.edu.tr](mailto:adidem@ogu.edu.tr). Tel. +90 222 2392979. Fax:+90 222 2293049.

**Table 1.** Socio-demographic characteristics of women (n = 503).

Characteristics	Number	Percentage
<b>Age group</b>		
15-24	72	14.3
25-34	204	40.6
35-+	227	45.1
<b>Occupation</b>		
Housewife	379	75.3
Working outside of home	124	24.7
<b>Educational level</b>		
Primary school	395	78.5
High school or university	108	21.5
<b>Health insurance</b>		
No	61	12.1
Yes	442	87.9

1 May to 30 June, 2005. The current study was conducted at the No. 2 Family Planning Center and Sultandere Primary Healthcare Center in Eskisehir. Two health care unit serves people at the average socioeconomic levels in a semiurban area. The research was performed on a total of 503 women who agreed to participate. All participants were between 15 and 49 years of age and all were married. The objective was to identify the vaginal douching habits and the factors that might be relevant. All women were given information about the purpose and benefits of the study as well as the amount of time the study would take. After reviewing this informed consent, participants agreed to be a part of the study. The questionnaire was performed with questions based on the literature. All information was obtained through a face-to-face interview. The survey contained socio-demographic characteristics, the vaginal douching habits and related factors.

The obtained data were analyzed with statistical package for social sciences (SPSS) version 15.0 (Chicago, IL, USA). Among the statistical tests, chi-square test and logistic regression analysis were utilized. Logistic regression was used to estimate (OR) and 95% (CI). A p value of < 0.05 was considered significant.

## RESULTS

The mean age of the 503 women in the study was  $33.13 \pm 7.50$ . The majority of the women were housewives (75.3%). 78.5% of the women were primary school graduates and 12.1% of the women did not have health insurance (Table 1).

The average age at first marriage was  $21.11 \pm 3.21$  (min = 15; max = 32), the average age at first delivery was  $22.87 \pm 3.40$  (min = 16; max = 35). Considering the marriage duration of women, 57.1% have been married for 10 years and 89.7% were observed to have used a family planning method. The utilized family planning methods were as follows respectively: 33.9% intrauterin device, 22.5% condom, 18.9% oral contraceptive, 11.0%

withdrawal, 2.1% injectable contraceptive, 1.0% female sterilization, other methods 0.3% (Table 2).

Considering the VD practices of women, it was observed that 47.7% performed this practice anytime during their lives. The average age at first practice was  $21.17 \pm 3.45$ . The logistic model results, of which were formulated by such variables (age, education, duration of marriage, age at first marriage, age at first labor, total pregnancy count, abortion, spontaneous abortions, profession and the residence type) affecting the vaginal douching practice are shown in Table 4. Thus, as the age increases, VD practice frequency also was rising in women with 4 or more pregnancy history and had PID in the past and as the level of education increases, the practice frequency was proportionately decreasing ( $p < 0.05$ ).

## DISCUSSION

VD is a continuing attitude widespread traditionally in this country and around the world. In the study, it was observed that almost half (47.7%) of the women had practiced vaginal douching at any part of their lives and in almost half (42.1%) of the women this practice had been performed 1 - 2 times a week (Table 3).

The prevalence of douching varies among the population studied. Factors such as a culture or ethnicity, educational level and socioeconomic status associated with the practice (Cottrell, 2003). The results obtained from social studies concerning the vaginal douching frequencies range from 38.0 to 70.0% in the literature (Baird, 1996; Kirchner, 2000). Similar frequencies (50.2 - 61.5%) have been reported (Caliskan, 2006; Akin, 2006;

**Table 2.** Reproductive characteristics of women (n = 503).

<b>Characteristics</b>	<b>Mean and Standard deviation (X ± SD)</b>
Mean age at marriage (years)	21.11 ± 3.21
Mean age at first birth (years)	22.87 ± 3.40
Mean total parity	2.51 ± 1.34
Mean total births	1.89 ± 0.83
Mean total abortions	1.53 ± 0.86
Mean induced abortions	1.48 ± 0.91
Mean spontaneous abortions	1.37 ± 0.60
Percentage using contraceptive method	n (%)
IUD	171 (33.9)
Condom	113(22.5)
Oral contraceptive	95 (18.9)
Withdrawal	54 (11.0)
Injectable contraceptive	11 (2.1)
Female sterilization	5 (1.0)
Another methods	2 (0.3)
No methods	52(10.3)

**Table 3.** The distribution of some characteristics of vaginal douching.

<b>Characteristics</b>	<b>Number</b>	<b>Percentage</b>
<b>VD habit</b>		
Never applied VD	263	52.3
Used to apply VD	192	38.2
Current applies VD	48	9.5
<b>How did the woman learn VD?*</b>		
Mother	76	31.6
By herself as instinctive	69	28.8
Combined (friends, relatives and others)	78	32.5
Health professionals	5	2.1
Religious persons	12	5.0
<b>Frequency of VD*</b>		
At least once a day	11	4.6
Every other day	15	6.2
2-3 times a week	101	42.1
Once a week	54	22.5
Less than once a week	59	24.6
<b>When did the woman perform VD? **</b>		
After sexual intercourse	171	71.2
During a shower	32	13.3
During ghusl	73	30.5
After using the toilet	12	5.0
After menstruation	35	14.5
<b>Reason for VD? **</b>		
Cleanliness	160	66.6
Religious	93	38.8

**Table 3.** The distribution of some characteristics of vaginal douching (continued).

To prevent pregnancy	34	14.1
Habit	12	5.0
To reduce symptoms (odor, discharge, etc)	8	3.3
<b>Preparation used for VD? **</b>		
Water	154	64.1
Water and soap	82	34.2
Others (vinegar, shampoo)	9	3.7
<b>Information about VD from health professionals?*</b>		
None	170	70.8
Yes about doing	5	2.1
Yes about not doing	65	27.1

\* n = 240 \*\*choose more than one answer.

**Table 4.** Multiple logistic regression analysis for vaginal douching practice (n = 240).

	<b>OR</b>	<b>95%CI</b>	<b>p</b>
Age	1.11	1.05 - 1.18	0.000
Educational level (high school or university)	0.02	0.005 - 0.09	0.000
Number of total parity (> 4)	3.43	1.29 - 9.14	0.01
Working out side of the home (working)	0.34	0.16 - 0.70	0.004
History of PID in women (present)	2.53	1.30 - 4.93	0.006

Karaer, 2005; Ege, 2007) in the studies carried out in Turkey so far. Some of the women stated that they have learned the vaginal douching practice from their mothers; majority said that they perform the practice following the intercourse and others reported that they perform it for cleaning purposes. While, in the study conducted by Caliskan et al. (2006) the rate of women who learned it by themselves was 42.8%, the rate of women who performed it right after the intercourse was 64.9% and the rate of women who performed it for cleaning purposes was 73.7% (Caliskan, 2006). The study by Ege et al. (2007) reported that 47.6% perform the practice for cleaning purposes and 35.4% are for post-intercourse (Ege, 2007). In the 2001 by Gazmararian reports in a study that women utilize such practice under the influence of their friends and mothers (14). These findings show the similarity with the present study.

Specific preparations used for douching vary according to cultural factors (Brown, 2000). While in Muslim countries, water and soap is the most widely used vaginal douching preparation, commercial preparations are utilized for this purpose in the Western societies (La Ruche, 1999). In Indonesia, soap with water is used preferentially, before water alone (Joesoef, 1996). In contrast, douching with commercial antiseptics was predominant and frequent (35%) in Central Africa among women attending a STD clinic, whereas douching with

water was rare. In the United States, vinegar used by majority of the women who douched, which is potentially more irritating than water or soap (Kendrick, 1997).

In the study, majority of women indicated they used water for vaginal douching, some of them stated they were utilizing water and soap together and minority of women reported they preferred different preparations such as vinegar. In a study by Misra et al. (2006) and Gazmararian et al. (2001), vinegar was the most-preferred preparation for vaginal douching practices. Ege (2007), Caliskan (2006) and Kukulcu (2006) reported water was the most-preferred preparation for vaginal douching.

In Muslim countries, a ritual ablution (washing the whole body from head to toe) is performed in accordance with the religious beliefs and some women conduct vaginal douching practice during this cleaning routine. Vaginal douching is not necessary or obligatory by religion. Also, performing such a practice during the ablution is not said to be necessary or obligatory by religion (<http://www.diyenet.gov.tr/turkish/dy/DiniBilgilerDetay.aspx?ID=1608>, 14.01.2009). Vaginal douching is a traditional practice used by some women. Most of the women stated that they performed vaginal douching after the intercourse and during the ablution. Various purposes of practice were cleaning, religious beliefs and contraceptive. In a study by Ege (2007), post-intercourse

practice was 35.4%, Caliskan's study (Caliskan, 2006) put forth this rate as 64.9% and Kukul (2006) as 92.9%. However in the present study this rate was 71.2%. Many women believe douching is a normal and expected part of feminine hygiene. Approximately, 29% of American women purchase nonprescription douches, spending about \$500 million per year (Cottrell, 2003). In the study by Gazmararian (2001), women preferred the vaginal douching mostly for its hygiene and a feeling of cleanliness; it was also reported in the study that this attitude obtained at a very young age and from the family members is quite difficult to change. Whereas, in the 2004 by Simpson's study reported that many women preferred the vaginal douching time to be after menstruation, before and after the intercourse and during the vaginal symptoms and these women performed the practice in order to feel clean and refreshed (Simpson, 2004).

When asked if they obtained any information from the health personnel concerning the vaginal douching, 70.8% reported they did not get any information, 27.1% were told that this practice should not be carried out and 2.1% were informed it is necessary for them to perform it. Majority of women reported they did not get any information, some were told that this practice should not be carried out and minority of women were informed it is necessary for them to perform VD. The fact that this practice is said to have so many negative effects, even responsible for PID etiology, ectopic pregnancy risk and a decrease in fertility it is recommended by the health professional found to be quite remarkable a result (Martino, 2002). A careful approach by the health professionals would possibly give rise to a decrease in the frequency. In the study by Caliskan (2006), 88.1% of the women reported they did not obtain any information from the health professional and 7.8% were informed that they should be performing the practice. In Ege's study (Ege, 2007) 8% stated that they were informed not to perform the practice.

According to the results of logistic model formed by the independent variables affecting the vaginal douching practice, as the age increases, the VD practice frequency also proportionately rises in women with 4 or more pregnancy history and with a PID in the past and as the education level rises, the practice frequency decreases in working women. An increase in the education level manifests a parallelism with an increase in the socio-economic level and women become more active in the work life. The fact that women are employed and have a good education level might cause them to stay away from vaginal douching, a practice with so many negative effects. In summary; VD is a non healthy habit. There is an urgent need to establish which vaginal practices are harmful to women's health. Still, by better understanding the motivations and needs behind these practices, it may be possible to educate women and suggest healthy alternatives that can fulfill underlying motivations. Studies highlight that this practice has a connection with increase

in age, low socio-economic level, low education level (Ege, 2007) having a PID history (Caliskan, 2006) children with low birth weight history, ectopic pregnancy history and preterm delivery history (Martino, 2002; Aral, 1992). In some other studies, PID was found to be irrelevant and vaginal douching did not increase the risk of PID (Ness, 2002; Rothman, 2003). Probably, VD habit decreased in young women in our culture. Maybe it could be a cultural change.

## Conclusion

In accordance with the results obtained from the study, the vaginal douching practice which is a widespread conventional attitude among women should be given the necessary importance. It was concluded that it is necessary to provide health education for women who stated that they got information concerning the practice mostly from their mothers and this wrong attitude change needs to be corrected. Since vaginal lavage is directly linked with low education levels and the state of unemployment, it is resolved that such measures should be taken to increase the socio-economic levels of women. It is also concluded that special importance should be attached to the health education of the primary health care professional concerning the vaginal lavage.

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