



## The role of religiosity in the etiology of vaginismus in the light of socio-cultural features: The case of Turkey

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### Abstract

**Objective:** Vaginismus is the most common female sexual dysfunction in Turkey and Middle East countries. Looking at the medical literature related to vaginismus, studies/patients have concentrated in the Middle east geographic area. Turkey is a developing, secular country located between Middle East and Europe with a mostly Muslim population. Many factors have been discussed in the etiology including psychosocial, cultural, biological and sexual causes. Religious beliefs of a person in the form of religiosity affect all social and spiritual spheres of his/her life in some way positively or negatively. One of the most affected life areas by religious beliefs is sexual life, which has a lots of taboos. In this study we aimed to compare religious belief levels that are thought to be effective in the etiology of vaginismus between patients and healthy controls and to discuss some of the other socio-cultural features.

**Methods:** 49 patients and 37 healthy volunteers were included. Sociodemographic data form, religious life scale and a form of common sexual myths were used as the measurement tools.

**Results:** No statistically significant difference was found between the participants with and without vaginismus in terms of education duration, working status, occupations, economical status, longest living place and marriage type ( $p>0.05$  for all). No statistically significant difference was found between the belief, emotions, behaviour, knowledge and total scores of both groups in terms of the presence of vaginismus ( $p>0.05$  for all).

**Conclusions:** In conclusion, most of the sociodemographic data involved in the etiology of vaginismus, including religiosity, can be equalized for both groups - with or without vaginismus - over time in the changing world and in life and mental factors can remain as independent variables therefore expanding our research in this direction will help us understand this disorder better. In addition, it can be considered that male hegemon culture is one of the important factors in the etiology of vaginismus. The interpretation of religion with a male -dominated language may be a result of this hegemon culture.

**Keywords:** vaginismus, religiosity, islam, turkey, socio-cultural features

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## Vajinismus etiolojisinde sosyo-kültürel özellikler ışığında dindarlığın rolü: Türkiye örneği

### Öz

**Amaç:** Vajinismus, Türkiye ve Ortadoğu ülkelerinde en sık görülen kadın cinsel işlev bozukluğudur. Vajinismus ile ilgili tıbbi literatüre bakıldığında, çalışmalar / hastalar Orta Doğu coğrafyasında yoğunlaşmıştır. Türkiye, Orta Doğu ile Avrupa arasında yer alan, nüfusunun çoğunluğu Müslümanlardan oluşan ve gelişmekte olan laik bir ülkedir. Etiyolojide psikososyal, kültürel, biyolojik ve cinsel nedenler dahil birçok faktör tartışılmıştır. Bir kişinin dindarlık biçimindeki dini inançları, hayatının tüm sosyal ve manevi alanlarını bir şekilde olumlu veya olumsuz etkilemektedir. Dini inançlardan en çok etkilenen yaşam alanlarından biri de pek çok tabu içeren cinsel yaşamdır. Bu çalışmada, vajinismus etiolojisinde etkili olduğu düşünülen dini inanç düzeylerini hastalar ve sağlıklı kontroller arasında karşılaştırmayı ve diğer sosyo-kültürel özelliklerden bazılarını tartışmayı amaçladık.

**Yöntemler:** 49 hasta ve 37 sağlıklı gönüllü dahil edildi. Sosyodemografik veri formu, dini yaşam ölçeği ve genel cinsel mit formu ölçüm araçları olarak kullanıldı.

**Bulgular:** Vajinismus olan ve olmayan katılımcılar arasında eğitim süreleri, çalışma durumları, meslekleri, ekonomik durumları, en uzun süre yaşadıkları yerler ve evlilik şekilleri açısından istatistiksel olarak anlamlı fark bulunmadı (tümü için  $p > 0,05$ ). Vajinismus varlığı açısından her iki grubun inanç, duygu, davranış, bilgi ve toplam puanları arasında istatistiksel olarak anlamlı bir fark bulunmadı (tümü için  $p > 0,05$ ).

**Sonuç:** Sonuç olarak, vajinismus etiolojisine ait sosyodemografik verilerin çoğu, dindarlık da dahil olmak üzere, her iki grup için de -vajinismus olsun ya da olmasın - değişen dünyada ve yaşamda zamanla eşitlenebilir ve zihinsel faktörler bağımsız değişkenler olarak kalabilir, dolayısıyla bu yöndeki araştırmalarımız, bu bozukluğu daha iyi anlamamıza yardımcı olacaktır. Ayrıca erkek egemen kültürünün vajinismus etiolojisindeki önemli faktörlerden biri olduğu düşünülebilir. Dinin erkek egemen bir dille yorumlanması bu baskın kültürün bir sonucu olabilir.

**Anahtar kelimeler:** vajinismus, dindarlık, islam, türkiye, sosyo-kültürel özellikler.

## INTRODUCTION

Vaginismus is the most common female sexual dysfunction in Turkey and Middle East countries<sup>1</sup>. Looking at the medical literature related to vaginismus, studies/patients have concentrated in the Middle east geographic area<sup>2</sup>. Turkey is a developing, secular country located between Middle East and Europe with a mostly Muslim population<sup>3</sup>. Many factors have been discussed in the etiology including psychosocial, cultural, biological and sexual causes. It does not seem possible to reduce this function to a single cause. These causes include several factors such as raising style, sexual knowledge level, religious and cultural factors, spouse attitudes and personality characteristics. New approaches emphasize the importance of etiology and recommend determining treatment options according to etiology<sup>4</sup>. Religious beliefs affect life in every area. These may include social, cultural, economic, educational, spiritual and many other

areas. Religiosity is a concept that can change by time, place, culture or other socioeconomic conditions<sup>3</sup>. While religiosity is usually examined with belief and behaviour dimensions, a religious person is defined as a person who thinks that behavior, morality and belief dimensions of life are a whole, and who lives with these dimensions<sup>5</sup>.

There are many religions in the world. Sexuality is approached from different perspectives in each religion. It has been discussed both in the arrangement of married life and social life. Sexual provisions or laws are expected to be implemented by people who believe in that religion. For example, the holiness of virginity has been emphasized and sex outside of marriage has been prohibited. There is almost no belief system that does not emphasize sexual life<sup>6</sup>. Religious beliefs of a person in the form of religiosity affect all social and spiritual areas of his/her life somewhat positively or negatively.

One of the most affected life areas by religious beliefs is sexual life, which has a lots of taboos. Therefore, religious beliefs, thoughts, attitudes and behaviors of an individual inevitably affects the phenomenon of virginity associated with sexual life, view of sexual intercourse before or outside of marriage, and the relationship with the guilt and sinfulness that they cause in the individual<sup>7,8</sup>.

All of these etiological factors can be the subject of studies in the literature separately. However, the majority of studies have defined this dysfunction as an illness of "Western Countries". The place of religious beliefs in the etiology of vaginismus has been studied through sociological observations in the literature, examined within the framework of the importance given by a religion to virginity and prohibition of sexual intercourse outside of marriage, and emphasis has been placed on the guilt the intercourse created in women<sup>9</sup>. Religiosity has an important place in the literature among the etiological reasons that cause vaginismus. While starting this study, our hypothesis is that the religiousness levels of the vaginismus group are higher than those without vaginismus. However, there is no study to compare patients' religious belief levels with healthy controls.

In this study we aimed to compare religious belief levels that are thought to be effective in the etiology of vaginismus between patients and healthy controls, and to discuss them in the light of some socio-demographic data.

## **METHODS**

A total of 49 patients who presented to Van Regional Training and Research Hospital and 37 healthy volunteers were included in the study. All participants aged 18 years and over, and agreed to participate in the study. Outpatients who applied to the psychiatry outpatient clinic were included in the study. The participants were examined by a psychiatrist. Vaginismus was diagnosed according to DSM 4 diagnostic criteria. Axis I diagnoses

other than vaginismus were excluded. In both groups, those with neurological diseases that could affect their mental health were also excluded from the study. In both groups, illiterate individuals were excluded from the study. Only 4 people from the vaginismus group were not included in the study because they were illiterate, and all of the control group were literate. All participants in both groups completed the study. Volunteers in the control group were also examined by a psychiatrist, and those without axis I diagnoses were included in the study. All of the control group reported that they experienced penile penetration during coitus and were not disturbed by it. Sociodemographic data form, religious life scale and a form prepared by the researchers consisting of common sexual myths in Turkey were used as the measurement tools. Healthy volunteers were selected from hospital staff and their relatives who agreed to participate in the study. All participants stated that they believed in the religion of Islam. All participants were invited to the psychiatry outpatient clinic, their examinations were made, their written consents were obtained and the forms were filled.

Sociodemographic form included questions prepared by the researchers about general sociodemographic characteristics of the participants. The form included descriptive questions such as age, duration of marriage, form of marriage, educational status, partner's age, partner's marital status and economical status.

Sexual myths form was applied by the researchers as an 18-question form utilizing some common sexual myths in Turkey<sup>10</sup>.

Religiosity Scale: In this study, we used the 'Religious Life Scale'. This scale was developed by faculty members of Dokuz Eylul University Divinity School, Department of Religious Psychology and structured as to involve belief, emotions, behavior and knowledge dimension of religiosity in accordance with the religiosity model proposed by Glock<sup>11</sup>. The scale consists of 97 items with 31 being major and 66 filling items. The participants responded to 31 questions. The scale has 4 subdimensions as belief, emotions,

behaviour and knowledge. Belief subscale consists of 4, emotions subscale 7, behavior subscale 10 and knowledge subscale 10 items. Belief subscale was arranged with 3 options as agree (2 points), undecided (1 point) and disagree (0 point), and minimum score that can be obtained from the subscale was 0 and maximum score was 8. Emotions subscale consisted of 4 options as never (0 point), some (1 point), much (2 points), very much (3 points). The score range was 0-21 points. Behaviour subscale included the options of never (0 point), sometimes (1 point), mostly (2 points), always (3 points). The minimum score that can be obtained from this subscale was 0 and the maximum score was 30. Knowledge subscale was marked as True (T) and False (F) and each true answer was scored as 1 point. A minimum score of 0 and a maximum of 69 points could be obtained from the overall scale. Validity and reliability study of the scale was conducted by Yildiz<sup>12</sup>.

This study was approved by the Van Regional Hospital ethics committee with protocol number (2014/1). All scales and forms to be used in the study were submitted to the ethics committee, and inclusion and exclusion criteria were presented in detail.

### Statistical Analysis

Statistical analysis was performed using NCSS (Number Cruncher Statistical System) 2007 software<sup>13</sup>. When study data were evaluated; besides descriptive statistics (mean, standard deviation, median, frequency, percentage, minimum, maximum), comparison of normally distributed quantitative variables between two groups was made with Student t Test, while comparison of non-normally distributed variables was made with Mann Whitney U test. Qualitative variables were compared using Pearson's Chi-square test, Fisher-Freeman-Halton Exact test and Fisher's Exact test. Correlations between the variables were evaluated with Pearson's Correlation Analysis for normally distributed variables and Spearman's Correlation Analysis for non-normally distributed variables.  $p < 0.05$

values were considered statistically significant. In the evaluations to be made according to the presence of vaginismus, it was determined that at least 26 cases should be present in the groups in order to show the presence of a large effect size ( $d=0.8$ ) with 80% power at the  $\alpha=0.05$  level.

Consistency tests were repeated for all three scales and Cronbach  $\alpha$  values were found as 0.741 in Sexual Myths Scale and 0.812 in Religious Life Scale. These values were within very reliable, highly reliable and again highly reliable limits.

Alpha coefficients were evaluated as follows:

0.0 < 0.40 scale is not reliable.

0.40 < 0.60 scale is low-reliable.

0.60 < 0.80 scale is very reliable.

0.80 < 1.00 scale is highly reliable<sup>14</sup>.

Correlation coefficients (r) were calculated as follows:

0 - 0,25 very poor, 0,26 - 0,49 poor, 0,50 - 0,69 average, 0,70 - 0,89 good, 0,90 - 1,00 very good<sup>15</sup>.

## RESULTS

In our study, there were 49 subjects with vaginismus and 37 subjects without vaginismus. There was a statistically significant difference between ages of the participants in terms of the presence of vaginismus ( $p=0.001$ ;  $p<0.01$ ); patients with vaginismus were younger.

No statistically significant difference was found between the participants with and without vaginismus in terms of education duration, working status, occupations, economical status, longest living place and marriage form (for all  $p>0.05$ ). There was a statistically significant difference between marriage durations according to the presence of vaginismus ( $p=0.001$ ;  $p<0.01$ ); patients with vaginismus had a shorter marriage duration. Again, there was a statistically significant difference between partner's ages according to the presence of vaginismus ( $p=0.001$ ;  $p<0.01$ ); partners of the patients with vaginismus were younger. No statistically significant difference was observed between the incidence of

vaginismus in terms of partners' education duration ( $p>0.05$ ) (Table 1).

**Table I:** Descriptive Features According to Presence of Vaginismus

		Vaginismus		p
		No (n=37)	Yes (n=49)	
		n (%)	n (%)	
Age (years)	Min-Max (Median)	20-42 (27)	18-31 (24)	<sup>a</sup> <b>0.001**</b>
	Mean±SD	27.84±5.34	23.90±3.80	
Education duration	Literate	2 (5.4)	2 (4.1)	<sup>a</sup> <b>0.614</b>
	1-5 years	9 (24.3)	8 (16.3)	
	6-10 years	3 (8.1)	8 (16.3)	
	11 years and over	23 (62.2)	31 (63.3)	
Working status	Working	16 (43.2)	30 (61.2)	<sup>c</sup> <b>0.098</b>
	Not working	21 (56.8)	19 (38.8)	
Economic status	Low	1 (2.7)	5 (10.2)	<sup>a</sup> <b>0.182</b>
	Below average	3 (8.1)	1 (2)	
	Average	29 (78.4)	33 (67.3)	
	Above average	4 (10.8)	10 (20.4)	
Place of longest living	Village/ town	4 (10.8)	6 (12.2)	<sup>e</sup> <b>1.000</b>
	City/ metropolitan	33 (89.2)	43 (87.8)	
Marriage form	Arranged (own decision)	14 (37.8)	17 (34.7)	<sup>c</sup> <b>0.764</b>
	Flirting	23 (62.2)	32 (65.3)	
Marriage duration (month)	Min-Max (Median)	5-192 (36)	1-40 (8)	<sup>b</sup> <b>0.001**</b>
	Mean±SD	52.65±51.73	10.92±10.30	
Partner's age (years)	Min-Max (Median)	24-45 (31)	17-34 (27)	<sup>a</sup> <b>0.001**</b>
	Mean±SD	31.70±5.37	26.69±4.08	
Partner's education duration	1-5 years	2 (5.4)	4 (8.2)	<sup>a</sup> <b>0.636</b>
	6-10 years	5 (13.5)	10 (20.4)	
	11 years and over	30 (81.1)	35 (71.4)	

A Student t Test, b Mann Whitney U Test, c Pearson Chi-square Test, d Fisher-Freeman-Halton Test, e Fisher's Exact Test, \*\* $p<0.01$

Sexual myths and Religious Life Scale were grouped and compared between the participants

with and without vaginismus, and no significant difference was found between both groups in terms of sexual myth levels and religious belief levels (Table 2).

**Table II:** Scale Scores According to the Presence of Vaginismus

		Vaginismus		p	Effect size, post-hoc power
		No (n=37)	Yes (n=49)		
<b>Sexual myth scale</b>					
Total points	Min-Max (Median)	3-15 (10)	1-18 (10)	<sup>a</sup> <b>0.263</b>	<b>ES=0.245, 1-β=0.200</b>
	Mean±SD	9.68±3.19	10.49±3.41		
	<b>Religious Life Scale</b>				
Belief	Min-Max (Median)	7-8 (8)	7-8 (8)	<sup>b</sup> <b>0.732</b>	<b>ES=0.055, 1-β=0.057</b>
	Mean±SD	7.97±0.16	7.96±0.20		
	Emotions	Min-Max (Median)	6-21 (18)	3-21 (18)	<sup>b</sup> <b>0.676</b>
Mean±SD		17.24±3.18	17.04±3.98		
Behaviour		Min-Max (Median)	6-30 (25)	11-30 (26)	<sup>b</sup> <b>0.902</b>
	Mean±SD	23,59±5,52	25,39±4,06		
	Knowledge	Min-Max (Median)	4-9 (6)	3-9 (7)	<sup>b</sup> <b>0.752</b>
Mean±SD		6.46±1.14	6.51±1.60		
Total points		Min-Max (Median)	25-66 (58)	37-67 (58)	<sup>b</sup> <b>0.457</b>
	Mean±SD	55.27±7.94	56.90±6.31		

A Student t Test, b Mann Whitney U Test. \*\* $p<0.01$  \* $p<0.05$

There was no statistically significant difference terms of the presence of vaginismus ( $p>0.05$ ) between total scores of the sexual myth scale in (Table 3).

**Table III:** Distribution of the answers given to the Sexual Myth Scale

	False		True	
	n	%	n	%
1. Male always wants sex and is always ready for sex	9	10.5	77	89.5
2. Male should always start sexual intercourse	47	54.7	39	45.3
3. A woman who started making love is immoral	75	87.2	11	12.8
4. Making love equals sexual intercourse	32	37.2	54	62.8
5. Male should ejaculate as soon as possible once his penis become erect	45	52.3	41	47.7
6. Making love must always be natural and spontaneous, talking and thinking about making love disrupt it	30	34.9	56	65.1
7. All physical contacts should proceed to sexual intercourse	60	69.8	26	30.2
8. Men should not show their feelings	74	86.0	12	14.0
9. Every man should know how to enjoy every woman	9	10.5	77	89.5
10. Intercourse is only beautiful when both partners have orgasms together	3	3.5	83	96.5
11. If the partners love each other, they also know how to enjoy intercourse.	5	5.8	81	94.2
12. Spouses who have sexual intercourse instinctively know what the other partner is thinking and feeling	15	17.4	71	82.6
13. Masturbation is dirty and harmful	38	44.2	48	55.8
14. Masturbation is wrong during sexual intercourse	35	40.7	51	59.3
15. Loss of erection in penis means that he does not find his partner attractive	54	62.8	32	37.2
16. Fancy (dreaming) is wrong during sexual intercourse	52	60.5	34	39.5
17. Man or woman cannot say no to sexual intercourse	51	59.3	35	40.7
18. There are certain and strict rules about what is normal in making love	42	48.8	44	51.2

### Evaluations of Religious Life Scale

Cronbach's alpha coefficient of the overall scale was found as 0.812 and the scale was found to be highly reliable. No statistically significant

difference was found between the belief, emotions, behaviour, knowledge and total scores of both vaginismus and non-vaginismus groups (for all  $p>0.05$ ) (Table 4).

**Table IV:** Distribution of the Answers Given to the Religious Life Scale

Belief dimension	Disagree		Undecided		Agree			
	n	%	n	%	n	%		
1. There is Allah	0	0	0	0	86	100		
2. Hz. Muhammad is the prophet of Allah	0	0	0	0	86	100		
3. There will be an eternal life called afterlife after death	0	0	2	2.3	84	97.7		
4. The Quran is the holy book sent by Allah	0	0	0	0	86	100		
Emotions dimension	Never		Some		Much		Very much	
	n	%	n	%	n	%	n	%
5. While worshipping, I feel emotional thinking that I am in the presence of Allah	1	1.2	17	19.8	22	25.6	46	53.5
6. While praying, I feel relief, hoping that Allah will accept my prayer	2	2.3	9	10.5	23	26.7	52	60.5
7. When I enter a large mosque, I feel a spiritual atmosphere that I have not always experienced	6	7.0	14	16.3	28	32.6	38	44.2
8. When I help someone, I feel enthusiasm and peace inside me	1	1.2	6	7.0	20	23.3	59	68.6
9. When I think I have sinned, I feel regret and restlessness	0	0	7	8.1	21	24.4	58	67.4
10. When I encounter a situation that reminds me death, I feel shuddered and excited by thinking about what can happen to me in the afterlife	1	1.2	11	12.8	37	43.0	37	43.0
11. I admire the might of Allah in the face of everything being very orderly in nature	0	0	1	1.2	19	22.1	66	76.7
Behaviour dimension	Never		Sometimes		Mostly		Always	
	n	%	n	%	n	%	n	%
12. I fulfill the worships due to my belief	4	4.7	35	40.7	33	38.4	14	16.3
13. I refrain from drinking because it is forbidden in religion	1	1.2	5	5.8	7	8.1	73	84.9
14. I avoid gambling, since it is a sin	2	2.3	1	1.2	2	2.3	81	94.2
15. I avoid adultery, because it is forbidden in my religion	1	1.2	4	4.7	5	5.8	76	88.4

16. I refrain from bribery since it is a sin	3	3.5	1	1.2	4	4.7	78	90.7
17. I take care not to deceive anyone since deceiving people is against my religious belief	3	3.5	4	4.7	24	27.9	55	64.0
18. I try to tell the truth, because being truthful is necessary according to my religious belief	2	2.3	10	11.6	25	29.1	49	57.0
19. I treat my parents well, because this is ordered by Allah	5	5.8	6	7.0	26	30.2	49	57.0
20. I keep my promise, because keeping promise is a religious rule	3	3.5	12	14.0	41	47.7	30	34.9
21. I treat my neighbours well, because this is necessary according to my religious belief	3	3.5	13	15.1	33	38.4	37	43.0
<b>Knowledge dimension</b>					<b>False</b>		<b>True</b>	
					<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
22. It is possible to perform Friday prayer alone					<b>71</b>	<b>82.6</b>	15	17.4
23. The fast breaks if the fasting person lies					<b>61</b>	<b>70.9</b>	25	29.1
24. The Kaaba is where Hz. Mohammad's tomb is located					<b>38</b>	<b>44.2</b>	48	55.8
25. The Qur'an consists of 114 suras					33	38.4	<b>53</b>	<b>61.6</b>
26. Hz. Ali is the son of Hz. Mohammad from Hz. Hatice					<b>71</b>	<b>82.6</b>	15	17.4
27. The fard of the evening prayer is 3 rakats					4	4.7	<b>82</b>	<b>95.3</b>
28. It is not obligatory for every Muslim to know how to read the Quran from Arabic text.					47	54.7	<b>39</b>	<b>45.3</b>
29. The existence of jinn is also stated in the Qur'an					2	2.3	<b>84</b>	<b>97.7</b>
30. Religious information is more valuable than other information					<b>23</b>	<b>26.7</b>	63	73.3
31. Whether rich or poor, every Muslim is obliged to go on Hajj once in his life					50	58.1	<b>36</b>	<b>41.9</b>

## DISCUSSION

When both groups were evaluated in terms of age, participants in the vaginismus group were younger. Since first sexual intercourse is

encountered during first years of marriage, seeing a physician also occurs in this period. The mean age at presentation was about 23 years in our patient group, the mean duration of

marriage was nearly 10 months in this group. Mean ages of patients with vaginismus in studies are usually similar to our result<sup>16</sup>. Similar sociodemographic features between both groups might decrease limitations due to age differences somewhat, but the two groups were not homogenous as a limitation.

Working status was one of the titles examined in vaginismus. It can be said that working women feel themselves more free, have more communication facilities, open more to the world, and access right to information more easily<sup>17</sup>. This can be thought to decrease vaginismus by increasing sexual knowledge levels, increasing communication with men in social settings etc. However, in our study no significant difference was found between both groups in terms of working. In the literature, the rates of working/not-working among the patients with vaginismus were similar to our results<sup>18</sup>. In other words, we can not make a suggestion that vaginismus is the disease of working women or not-working women. We can say that working is not protective against vaginismus in this population. In fact, in a study from our country on religious and working women, the rate of these women becoming visible in society has risen, but their lifestyle continued in a paternalistic form<sup>19</sup>. However, in our study such advantages of working seem to be absent. This may show that women do not have access to the mentioned freedoms in working life. This may be resulted from working life, which has been established in a male dominant nature. Sociologic, political and economic factors other than religious beliefs may eliminate or reduce the advantages brought by working life to women<sup>20</sup>.

Another result of our study was lack of significant difference between both groups in terms of educational status. At least 60% of the participants in the both groups received education for 11 years and over. Looking at our study period, only one fifth of women in Turkey

had an educational level of high school and higher<sup>21</sup>. Whereas in our study, more than 60% of the participants in the vaginismus group – and other group- received education for 11 years and over. There are numerous studies reporting that vaginismus is caused by lack of education and knowledge<sup>22</sup>. However, lack of sexual education courses in the Turkish education system<sup>23</sup> may eliminate the positive contribution of being educated. Although women with a high educational level are also seen to have vaginismus<sup>24</sup> in our study, knowledge level of the participants could not be exactly revealed, and this could not be compared with religiosity as a limitation. However similar religiosity and educational levels between both groups may be an important indicator showing that the effect of religious belief on vaginismus is less than it is thought.

Cities were the places of longest living in both groups. When the incidence of vaginismus was examined in terms of living in rural or urban areas, studies in the literature have reported similar results for both locations<sup>25</sup>. In our study, it does not seem possible to conclude that living in a city brings advantages for sexual life. We attributed this to unhealthy urbanization. Migration to urban areas from rural areas, and maintaining rural/ paternalistic culture are among the most important causes of this. Van province where this study was conducted is located in the most underdeveloped region of Turkey in terms of urbanization<sup>26</sup>. However, in our study migration data of the patients were missing, as a limitation.

Marriage forms have also been subjected to many studies in the literature. Studies have reported similar results with our study<sup>16</sup>. Looking at Turkey, the rate of arranged marriage with their own decision accounts for about 40% of all marriages. In our study, the number of patients married with this form was close to this rate (approximately 37%).

There was no significant difference between both groups in terms of sexual myths. In a recent study, the levels of sexual myths were shown to be not high among the couples that prepared for marriage<sup>27</sup>. In fact, the general opinion is that patients with vaginismus have more sexual myths, although studies in the literature did not report a definitive conclusion on this issue.

Religiosity level was similar between the two groups. Both groups have many similar characteristics including educational level, working status, partners' educational level, income level, marriage forms and the regions of living. At the same time, the levels of sexual myths were similar between the two groups. The participants in the group without vaginismus were older and their marriage durations were longer. Religiosity concept is affected by many factors. Some of these factors include age, gender, marital status, socioeconomic level, living in urban/rural areas and educational level. Religiosity is seen more commonly in married persons and women as age and living in a rural area increase, while religiosity level decreases as educational level and living in an urban area increase<sup>28</sup>. However, in our study religiosity level seems to be not affected by variables such as age, educational level, place of living, and economical status. In this case, it can be said that one of the important factor in socio-cultural dimension of the etiology is a paternalistic social structure.

In fact there are publications in the psychiatry literature supporting this opinion<sup>29</sup>. In the literature, we can think that the male-dominated culture may underlie the determination that religiosity is effective as an etiological reason and this is confused with religiosity. Ultimately in a textbook investigating the relationship of religion in paternalistic societies; the author stated that universal problems of Arabian women such as sexuality, marriage, sexual abuse, devastation of

sexual organ and divorce are not resulted from Islamic values, but from paternalistic culture<sup>30</sup>. However, the lack of sufficient number of cases in our study is a limitation and large study populations are needed.

## CONCLUSIONS

In our study, it was observed that there was no statistical difference between the groups with and without vaginismus in terms of sociodemographic data such as education level, employment status, marriage style, education status of the spouse, the shape of the city of residence, sexual myths. In addition, according to the results of the study, it is seen that the thesis "the level of religiosity is higher in vaginismus patients" in our hypothesis is not confirmed. Vaginismus is a disorder in which many social and mental factors play a role in its etiology. However, the similar sociodemographic characteristics of both groups - including their level of religiosity - prompted us to consider other psychiatric etiological factors. Investigation of psychiatric factors in the etiology of vaginismus is not among the objectives of this study. This article contributes to the world of literature in terms of showing that the view "religiousness is one of the factors contributing to the formation of vaginismus" may not be valid. In conclusion, most of the sociodemographic data involved in the etiology of vaginismus, including religiosity, can be equalized for both groups - with or without vaginismus - over time in the changing world and in life and mental factors can remain as independent variables therefore expanding our research in this direction will help us better understand this disorder.

**Ethics Committee Approval:** This study was approved by the Van Regional Hospital ethics committee with protocol number (2014/1). All scales and forms to be used in the study were submitted to the ethics committee, and inclusion and exclusion criteria were presented in detail.

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