



ARAŞTIRMA / RESEARCH

Domestic violence and anxiety levels in infertile women

İnfertil kadınlarda aile içi şiddet ve kaygı düzeyleri

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Abstract

Purpose: The aim of the study is to determine the frequency of domestic violence in infertile women, to review some associated variables and to evaluate anxiety level.

Materials and Methods: The study group consisted of a total of 774 women (88.1%) admitted to the infertility outpatient clinic of the hospital and agreed to take part in the study. The questionnaire forms prepared by using the literature in line with the study objective were completed by the investigators with face-to-face interview method. The women who suffered from minimum one type of domestic violence at least once within last 1 year were regarded to have a "history of domestic violence". The Beck Anxiety Inventory was used to assess anxiety level.

Results: 116 (15.0%) infertile women in our study reported to suffer from domestic violence. The most frequently reported domestic violence type was emotional (56.1%) and sexual (21.9%). In our study, exposure to domestic violence was determined to be higher in women aged 25 years and above, with an education level of high school and above, with no job, with addiction of smoking and alcohol, with obesity, who got married more than once, whose first marriage age is 19 years and below, who are married for 4 years or below, with primary infertility, who are infertile for 2 years and below and with a family history of infertility. Anxiety levels of infertile women with a history of domestic violence were determined to be significantly higher.

Conclusion: Domestic violence against infertile women is an important issue with regard to women health and in social terms. Treatment of infertile women enabling them to have children will affect their mental health positively.

Key words: Domestic violence, infertile women, anxiety.

Öz

Amaç: İnfertil kadınlar arasında aile şiddet sıklığının saptanması, ilişkili bazı değişkenlerin incelenmesi ve anksiyete düzeyinin değerlendirilmesi amaçlanmıştır.

Gereç ve Yöntem: Çalışma süresince hastanenin infertilite polikliniğine başvuran ve çalışmaya katılmayı kabul eden toplam 774 kadın (%88.1) çalışma grubunu oluşturmuştur. Çalışmanın amacına uygun olarak literatürden faydalanılarak hazırlanan anket form, yüz yüze görüşme yöntemi ile araştırmacılar tarafından dolduruldu. Son 1 yıl içinde aile içi şiddet türlerinden en az 1 tanesine ve en az 1 kez maruz kalanlar "aile içi şiddet öyküsü" var olarak kabul edildi. Anksiyete düzeyinin değerlendirilmesinde ise Beck Anksiyete Ölçeği kullanıldı.

Bulgular: Çalışmamızda infertil kadınlardan 116'sı (%15) aile içi şiddete maruz kaldığını bildirdi. En çok görülen aile içi şiddet tipi %56.1 ile duygusal ve %21.9 ile cinsel şiddet idi. B u çalışmada 25 yaş ve üzeri olanlarda, lise ve üzeri öğrenim düzeyine sahip kadınlarda, çalışmayanlarda, sigara-alkol alışkanlığı olanlarda, obez olanlarda, birden fazla evlilik yaşayanlarda, ilk evlenme yaşı 19 ve altında olanlarda, evlilik süresi 4 yıl ve altında olanlarda, primer infertil olanlarda, infertilite süresi 2 yıl ve daha az olanlarda, ailesinde infertilite öyküsü olanlarda aile şiddet maruziyetinin daha fazla olduğu saptanmıştır. Aile içi şiddet öyküsü olan infertil kadınların kaygı düzeyleri anlamlı bir şekilde daha yüksek bulundu.

Sonuç: İnfertil kadınlara yönelik aile içi şiddet, hem sosyal açıdan hem de kadın sağlığı açısından önemli bir sorundur. İnfertil kadınların varsa tedavilerinin sağlanarak çocuk sahibi olmaları onların ruh sağlıklarını olumlu yönde etkileyecektir.

Anahtar Kelimeler: Aile içi şiddet, infertil kadın, kaygı.

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INTRODUCTION

Infertility is defined as the failure to achieve a pregnancy after 1 year of regular unprotected sexual intercourse¹. It is one of the major clinical problems that affects 10-15% of young couples and comes with medical, psychiatric, psychological and social problems^{2,3}. In the modern world, this issue is becoming more important along with the increased age of marriage, problems of modern time and increased number of secondary diseases⁴. One of the basic instincts of mankind is to reproduce and to continue his bloodline. Couples that cannot meet this instinct pass through specific periods resulting with psychological trouble³. Infertile couples may feel disappointment and hopelessness because of inability to have a child, believe that it is unfair to experience this problem and lose their control. They may feel anger towards their spouse and environment⁵. Women and men show different emotional responses to infertility. While women tend to express their feelings constantly, men try to lighten the emotional burden caused by infertility, focusing on other works. Thus, couples start not to discuss the matters related to infertility followed by problems in many other areas. When couples fail to discuss this matter, women feel as if they are having this problem alone, think that their spouse cannot understand them and feel abandoned^{6,7}.

The World Health Organization stated that violence experienced in family, the smallest social unit in society, leaves its deep and permanent mark on the structure of society. Both fatal and non-fatal outcomes of violence cause many negative changes in victim of violence in particular, family and society and even the perpetrator⁸. In 48 studies conducted by the World Health Organization on global population, 10-69% of women reported having experienced physical violence inflicted by their spouse or intimate partner¹.

Health of individuals who are victim of psychological, physical and sexual violence by their partners is affected adversely. Violence is considered not only a health issue but also a risk factor affecting health. Domestic violence has also adverse effects on reproductive health of women⁹. A study reported menstrual irregularities (78.5%), abnormal uterine bleeding (64%), premenstrual syndrome (100%), lack of sexual drive (94.2%), sexual dissatisfaction (81.5%), orgasm problems (75.3%), vaginal dryness

(80.1%), and dyspareunia (84.6%) in women who are exposed to violence by their partners¹⁰.

Problems in marriage are associated with violence. Infertile women unable to conceive a child are deemed incapable by their spouse and experience various types of violence¹¹. A study conducted in Turkey reported that 33.6% of women suffer from violence¹². Some studies conducted in various countries suggested that 1.8% to 41.6% of infertile women experience violence^{11,13,14}. Infertility increases incidence of domestic violence and emotional breakdown of women experiencing violence because of infertility is twice more¹².

Studies on psychological health outcomes of violence suggest that women subjected to domestic violence suffer from higher rates of anxiety as well as disorders such as major depression, low self-esteem, hypervigilance, suicide, alcoholism, dissociation, somatization, and post-traumatic stress disorder¹⁵. Some studies determined that anxiety level is significantly higher in women experienced domestic violence¹⁶⁻¹⁸.

This study was intended to determine the frequency of domestic violence, to review some variables which are believed to be associated and to evaluate anxiety level in infertile women in Sakarya.

MATERIALS AND METHODS

This is a cross-sectional study conducted on women who applied to Sakarya Training and Research Hospital Infertility Polyclinic between 01 March 2013 and 01 July 2013. A total of 879 women presented to the infertility polyclinic of the hospital during the study and the study group consisted of 774 women (88.1%) who agreed to take part in the study out of these women. Out of women who presented to the hospital's infertility polyclinic throughout the study, those who were literate, able to communicate and agreed to take part in the study constituted the study group. An approval dated 20/01/2012 with number 75893214 was obtained from Sakarya University Faculty of Medicine Ethics Committee in order to conduct the study. The rules stated in the Helsinki Declaration were complied in the stage of data collection.

The questionnaire which was prepared in line with the study objective by using the literature^{3,6,7,13,11,14,19} included some socio-demographic characteristics of women, some variables which are believed to be

associated with infertility and inventory questions about anxiety. After informed verbal consent was obtained from the women who constituted the study group, previously prepared questionnaires were completed by the investigators with face-to-face interview method. The discussions were made in the waiting hall of the hospital's infertility polyclinic and each discussion lasted about 20-25 minutes. Infertile women who presented to the polyclinic were informed about the subject and aim of the study and those who agreed to take part in the study constituted the study group. Investigators made interviews with the women in the study group and completed previously prepared questionnaires with face-to-face interview method.

For the purposes of this study, physical violence was defined as slapping, kicking, punching, dragging, pulling hair, twisting arm, choking, injuring with sharp objects, verbal violence was defined as insulting or swearing, shouting in front of other people, economic violence was defined as giving no money, asking about her expenses, not allowing her to work, emotional violence was defined as acting rude, belittling, humiliating, making pressure on who to see, and sexual violence was defined as forcing to have sexual intercourse, forcing to do something sexual that she found degrading or humiliating. The women who suffered from minimum one of these violence types at least once within last 1 year were regarded to have a "history of domestic violence"²⁰.

Women who have not achieved a pregnancy after 1 year of regular sexual intercourse without any contraceptive method were regarded as "infertile" in this study. Of the infertile women, those who had no pregnancy before were considered primary infertile and those who had at least one pregnancy were considered secondary infertile²¹.

The Beck Anxiety Inventory was used to assess the anxiety level. This inventory was developed by Beck et al. in 1988 and its validity and reliability study was performed by Ulusoy et al. in Turkey in 1998. The inventory consists of 21 questions on a 4-point Likert scale with a total score of 0 to 63. Higher scores denote to increased severity of anxiety^{22,23}. Family income was assessed by the women as poor, average and high based on their own perceptions. Those who smoke at least one cigarette a day were defined as "smoker"²⁴ and those who consume at least 30 g of ethyl alcohol a week were regarded as "alcohol consumer"²⁵. Following the completion of questionnaire, the women's height was measured

with a tape-measure and body weight was measured with a home-type scale. Women with a body mass index of 30 and above were considered "obese"²⁶. Study data was assessed separately for women who experienced domestic violence and no domestic violence to identify factors affecting domestic violence and to determine if there is a relationship between them.

Statistical analysis

The data were evaluated in IBM SPSS (version 20.0) statistical package program. Chi-square test and the Mann-Whitney U test were used for analyses. Statistical significance was accepted as $p \leq 0.05$.

RESULTS

The age of women in the study group ranged from 17 to 48 years with a mean age of 28.27 ± 5.45 years. 454 women (58.7%) were aged 29 years and below and 320 (41.3%) were aged 30 years and above. Number of women who suffered from domestic violence was 116 (15.0%) in this study. Women in the study group experienced emotional violence the most with a rate of 38.1%; whereas there was no woman experienced economic violence. Distribution of the types of domestic violence experienced by infertile women is given in Table 1.

Table 1. Distribution of the types of violence experienced by infertile women

Type of violence	Number	%
Physical	19	11.0
Verbal	19	11.0
Economic	0	0.0
Emotional	97	56.1
Sexual	38	21.9
Total*	173	100.0

*Calculated based on type of violence, not on number of people.

Distribution of women who experienced domestic violence and no domestic violence in the study group by some socio-demographic characteristics is given in Table 2. 67.8% (n = 525) of the women in the study group stated that they had love marriage and 95% (n = 735) stated that it was their first marriage. 76.1% (n = 589) of the cases had primary infertility. 445 women (57.5%) had unexplained infertility. Distribution of infertile women with and without a history of domestic violence by some characteristics of marriage, menstruation and infertility was given in Table 3.

Table 2. Distribution of women with domestic violence in the study group by somedemographic characteristics

Characteristics	Domestic violence			Statistical analysis X ² ; p
	No n (%) ^a	Yes n (%) ^a	Total n (%) ^b	
Age group (years)				
≤ 24 years	180 (90.5)	19 (9.5)	199 (25.7)	7.613; >0.05
25-29 years	217 (85.1)	38 (14.9)	255 (32.9)	
≥ 30 years	261 (81.6)	59 (18.4)	320 (41.3)	
Educational level				
Secondary school and below	382 (91.0)	38 (9.0)	420 (54.3)	25.426; <0.05
High school and above	276 (78.0)	78 (22.0)	354 (45.7)	
Working status				
Unemployed	474 (83.2)	96 (16.8)	570 (73.6)	5.841; >0.05
Employed	184 (90.2)	20 (9.8)	204 (26.4)	
Personality type				
A	395 (83.5)	78 (16.5)	473 (61.1)	2.158; >0.05
B	263 (87.4)	38 (12.6)	301 (38.9)	
Smoking				
Non-smoker	453 (95.8)	20 (4.2)	473 (61.1)	110.499; <0.05
Smoker	205 (68.1)	96 (31.9)	301 (38.9)	
Alcohol consumption				
No	566 (88.0)	77 (12.0)	643 (83.1)	25.672; <0.05
Yes	92 (70.2)	39 (29.8)	131 (16.9)	
Obesity				
No	600 (86.1)	97 (13.9)	697 (90.1)	5.483; >0.05
Yes	58 (75.3)	19 (24.7)	77 (9.9)	
Total	658 (85.0)	116 (15.0)	774 (100.0)	

Percentages were calculated ^(a) based on the line total and ^(b) based on column total.

Table 3. Distribution of women with domestic violence with regards to marriage and infertility variables

Some characteristics of marriage and infertility	Domestic violence			Statistical analysis X ² ; p
	No n (%) ^a	Yes n (%) ^a	Total n (%) ^b	
Form of marriage				
Arranged	121 (86.4)	19 (13.6)	140 (18.1)	0.738; > 0.05
Love	447 (85.1)	78 (14.9)	525 (67.8)	
Elopement/abduction	90 (82.6)	19 (17.4)	109 (14.1)	
Number of marriage				
1	658 (89.5)	77 (10.5)	735 (95.0)	225.989; < 0.05
2 or more	0	39 (100.0)	39 (5.0)	
First marriage age (year)				
≤ 19 years	226 (79.9)	57 (20.1)	283 (36.6)	11.743; < 0.05
20-24 years	330 (89.4)	39 (10.6)	369 (47.7)	
≥ 25 years	102 (83.6)	20 (16.4)	122 (15.8)	
Marriage period (year)				
≤ 4 years	256 (76.6)	78 (23.4)	334 (43.2)	32.320; < 0.05
5-9 years	210 (91.7)	19 (8.3)	229 (29.6)	
≥10 years	192 (91.0)	19 (9.0)	211 (27.3)	
Type of infertility				
Primary	492 (83.5)	97 (16.5)	589 (76.1)	4.245; > 0.05
Secondary	166 (89.7)	19 (10.3)	185 (23.9)	
Infertility period (year)				
≤ 2 years	259 (77.1)	77 (22.9)	336 (43.4)	29.522; < 0.05
3-4 years	185 (90.2)	20 (9.8)	205 (26.5)	
≥ 5 years	214 (91.8)	19 (8.2)	233 (30.1)	

Infertility factor				
Female	199 (91.3)	19 (8.7)	218 (28.2)	9.380; < 0.05
Male	92 (82.9)	19 (17.1)	111 (14.3)	
Unexplained	367 (82.5)	78 (17.5)	445 (57.5)	
Family history of infertility				
No	536 (87.6)	76 (12.4)	612 (79.1)	14.196; < 0.05
Yes	122 (75.3)	40 (24.7)	162 (20.9)	
Total	658 (85.0)	116 (15.0)	774 (100.0)	

Percentages were calculated (a) based on the line total and (b) based on column total.

The scores obtained from the Beck Anxiety Inventory ranged from 1 to 48 with a median score of 10. Mean score obtained from the anxiety inventory was 11.36 ± 8.95 for women with no history of domestic violence and 21.39 ± 8.37 for women with a history of domestic violence. Distribution of median scores obtained from the inventory by women who experienced domestic violence and no domestic violence is given in Table 4.

Table 4. Beck Anxiety Inventory scores in women with domestic violence

Domestic violence	n	Beck Anxiety Inventory Median (min-max)
No	658	10 (1.0-48.0)
Yes	116	21 (10.0-33.0)
Total	774	10 (1.0-48.0)

$z=10.756$; $p=0.000$

DISCUSSION

Infertility is believed to be a factor causing domestic violence. Infertile women are twice more likely to be subjected to domestic violence than other women. Yildizhan et al. found that 33.6% of women with primary infertility experienced domestic violence due to infertility. In this study, verbal abuse was the most common type of domestic violence reported (63.4%). The abused women (78%) were threatened with divorce by their husband¹². Ardabilly et al. determined the prevalence and risk factors of domestic violence against women with female factor infertility and indicated that 61.8% of women reported having experienced domestic violence because of their infertility¹¹. Unisa and Dyer et al. showed that women got various punishments in their societies^{27,28}. In Unisa's study, which was conducted on 316 childless women, 39% of the women reported violence by their husband, it was stated by 4% of the women that their husband had another relationship, 12% that their husband had

more than one relationship, and 4% that their husband wanted divorce²⁶. Sami and Ali reported that 64% of infertile women experienced violence²⁹. 15% infertile women in our study stated that they suffered from domestic violence. The most frequently reported domestic violence type was emotional (56.1%), followed by sexual (21.9%). It can be claimed that domestic violence because of infertility is common as shown consistently in the studies conducted in Turkey and abroad.

Women with a low educational level were found to experience more domestic violence in our country and other countries^{19,30,31}. It is known that educational level causes no difference in violence against women; however, women with a higher educational level are more successful in termination of violence. Akyuz et al. reported no relationship between domestic violence and age, educational level and occupation of infertile women³². However, there are researchers stating a relationship between exposure of infertile women to violence and their age, educational level and occupation^{11,12}. In our study, the frequency of domestic violence was lower in women aged 24 years and below compared to other age groups ($p < 0.05$) and higher in women with no revenue-generating job ($p < 0.05$) and with an educational level of high school and above compared to those with an educational level of secondary school and below ($p < 0.05$). Women receiving infertility treatment for an extended time and waiting to have children are subject to an increased amount of violence. This situation is believed to develop in connection with living under stress for a longer duration and decreased marital harmony of the couple.

In our study, domestic violence was found to be more common in women who got married more than once ($p < 0.05$). Gokler et al. also found a lower domestic violence in women who got married once³³. In Turkish society, marriages are ended because of domestic violence and, consequently, it

may be assumed that more violence was experienced by persons who got married more than once.

There was no study conducted on infertile women on this matter in the literature. However, it is possible to assume that communication problems are more prominent during first years of marriage, which is one of the aspects of communication problems regarded as a risk factor for violence. In a study conducted by Sahin et al. on married women to compare marital relationship of women experiencing intimate partner violence and those experiencing no violence, the former were determined to have younger spouse, a shorter period of the latest marriage, arranged marriage or marriage upon elopement/abduction and a higher family history of violence against women in their spouse's family³⁴. These results are consistent with the risk factors determined for violence against women in the literature. In the literature, lack of communication between spouses is defined as a primary risk factor³⁵. Our study determined a higher domestic violence in those whose marriage period is 4 years and below but no difference in domestic violence and type of marriage of the women.

Domestic violence was found to be more common in women who have been infertile for 2 years and below. The women with primary infertility in the study group were observed to experience more domestic violence. Different social expectations between spouses and a prominently different lifestyle cause major problems in family. Especially in traditional cultures, when a couple cannot have a child after some time, they feel responsible for social environment resulting in disappointment in the family, a strong feeling of guilt, unjust accusations between spouses and, consequently, psychological pressure on marriage bond^{36,37}.

Domestic violence was lower in the group with female infertility compared to others ($p < 0.05$). Although infertility is not only a female but also a male problem, people have attempted to put the 'blame' on women or on 'uterus' throughout history. It is known that more than 4.5 millions of couple experience infertility every year. Millions of couples had to deal with this problem through long ages. Even today, infertile women feel humiliated while expressing their infertility despite of modern medicine, higher educational level and deeper social awareness. In some old cultures, women were subject to not only humiliation but also punishments such as divorce (United Kingdom),

burning alive after tying to a chair (India) or death by hanging³⁶.

Domestic violence causes physical and psychosocial problems in women. These problems include disabilities, sexually transmitted diseases, perinatal complications, and psychological problems such as depression, suicide, anxiety, drug/alcohol dependence and post-traumatic stress disorder³⁸⁻⁴². Negative statements made by women experiencing violence on their physical and mental status are two-fold/three-fold more common compared to women experiencing no violence⁴³. Many studies determined that infertility had adverse effects on marital relationships, sexual life and economic conditions of couples and their stress, anxiety and depression scores were higher than fertile population. Anger, nervousness, decreased self-respect, difficulty in interpersonal relationships, decreased life satisfaction, anxiety and depression are commonly reported indicators of psychological disorders associated with infertility⁴⁴⁻⁴⁸. The most important roles of nurses include helping women to find suitable solutions and ensuring that they deal with this crisis in addition to family support systems. Several researches indicated that chance of treatment success and couples' quality of life will improve when it is ensured that couples undergo this process without anxiety and depression in a more harmonized way^{49,50}. Anxiety levels of infertile women with a history of domestic violence were determined to be significantly higher in the study.

The limitations of the study may include the facts that it is a cross-sectional study, it was conducted on women who presented to infertility polyclinic of a single hospital and inventories used to determine anxiety levels are self-assessment inventories. Absence of a standard inventory to assess family income is one of the important limitations of this study.

Domestic violence against infertile women is an important issue with regard to women health and in social terms. It is important to provide more information on protection from domestic violence. Treatment of infertile women, if possible, enabling them to have children will affect their mental health positively. It will be advantageous to refer women with a high level of anxiety to psychiatry specialists for definitive diagnosis and treatment, if any. Similar studies should be conducted for contribution to literature.

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