Violence and Female Sexual Dysfunction in Infertile Women

Abstract

Background: In our eastern society, having children is a social responsibility for couples, thus, infertility is a significant life stressor that negatively impacts the couple’s life. The relationship between both sexuality & violence and infertility is a topic of great significance. However, little research had opened that gate and there is paucity of published data about infertile female sexual dysfunction and partner violence against Egyptian females.

Objective: To evaluate the prevalence of domestic violence and sexual dysfunction among the infertile women and their fertile counterparts.

Subjects and methods: This study was a case-control study that was conducted 205 infertile cases and 205 fertile control counterparts. The Arabic validated version of NorVold Domestic Abuse Questionnaire (NOR AQ) was used to assess four categories of abuse: emotional, physical, and sexual, violence. Moreover, Arabic translated version of Female Sexual Functioning Index (FSFI) that comprised six domains (desire, arousal, lubrication, orgasm, satisfaction, and pain) was utilized to evaluate the female sexual dysfunction of the enrolled cases.

Results: Regarding NorVold Domestic Abuse Questionnaire (NOR AQ) analysis, results showed that regarding the emotional violence, there was non-statistically significant difference between the percentage of cases who reported emotional violence the infertile cases (42.0%) and controls (40.5%). Regarding physical violence, 30.7% of the infertile cases in the current research reported that they had a physical violence compared to only 15.6% in the fertile controls (P<0.001). Regarding sexual violence it was the least represented in our work (21.5% and 14.6% in the infertile and fertile controls respectively) (P=0.07). As regard analysis of FSFI score, it was found that all its components; (Libido (desire), Sexual arousal, Lubrication, Orgasm, Satisfaction and Pain) were all significantly lower among infertile group (p<0.001) and also the total score was significantly lower among infertile group (p<0.001). Moreover, the univariate linear regression analysis reveals that BMI, frequency of emotional and physical violence were significant predictors.
for FSFI total score, while in the multivariate linear regression only frequency of physical violence was significant predictors for it.

**Conclusion:** Infertile women are more likely to be exposed to physical, sexual and psychological violence. Psychological violence was found to be the most common type of reported violence against infertile women followed by physical and sexual violence. Moreover the infertile women had a significantly higher prevalence of sexual dysfunctions than their fertile counterparts.

**Keywords:** Infertility, Violence, Sexual Dysfunction.

**Introduction**

Millions of couples across the world suffer from Infertility(1). In other words, it is estimated that approximately one in seven couples in the developed countries and one in four couples in the developing countries are subfertile(2).

In Egypt, infertility is a major health matter distressing about 12% to 25% of couples with a subsequent great psychosocial impact (3).

As having children is a social task of the family, failure in this concern negatively affects the all aspects of couple's life due to the excessive stress they face specially the wife as she feel more accountable for infertility(4).

The sub-fertile couple is more predisposed to stress, depression, and anxiety that would adversely affect the marital satisfaction in their sexual health. In addition, the medical procedures used for investigation or treatment of subfertility may create a sense of anxiety and thus influence sexual functioning (5). The association between sexuality and infertility is an issue of critical significance (6).

Intimated partner violence (IPV) occurs at variable rates and by the World Health Organization (WHO) it is reported by 37% in the Arab world. Yet, it is still underestimated in Egypt (7).

Moreover, it's reported that infertility is among of the factors that lies behind all forms of domestic violence anti women. Therefore, it is crucial to determine infertility-induced psychosocial and sexual consequences distressing female life (8).

The present study aimed to evaluate the prevalence of domestic violence and sexual dysfunction among the infertile females versus their fertile counterparts.

**Subjects and Methods**

This study was a case-control study that was conducted at the Department of Obstetrics and Gynecology, Benha University Hospitals and Private Infertility Clinic during the period of study that extended from December 2021 till May 2023. Study groups were female aged 18–45 years with continuous marital relationship and complaining of infertility either primary or secondary and matched control group of fertile women who attended the outpatient clinics for any concern. Infertile couples with male factor infertility and women who refused to participate in our research were excluded from the study.

The study protocol was approved by the ethical committee of Benha University Hospitals, Benha University. An informed written consent was obtained from all patients participating in this.

**Sample size:**

The sample size was be calculated using EPI-Info (Epidemiological information package) software version 7.2.4, C.I (Confidence Interval) 95%, power of the study 90%, ratio of cases to control was 1:1, Hypothetical proportion of controls with exposure was 25% while in cases was 40% (9). The sample size was 205 in each group (fertile and infertile groups).

Demographic parameters were gathered in details. Also, Partners’ data included age, level of education, occupation and socioeconomic level. Infertility data: type
(primary or secondary) and duration of infertility were evaluated. Any clinical data about infertility cause was gathered.

Then, women were asked to complete the Arabic validated version of NorVold Domestic Abuse Questionnaire (NORAQ) that was described by Haddad et al., (10) to assess four categories of abuse: emotional, physical, sexual, in addition to violence in the healthcare system, the last one being excluded in the current research. Validation was done to guarantee that the questions were reliably sent to women with the intended meaning they were formulated for. The entire types were classified into three categories of severity (mild, moderate, and severe) except for sexual abuse that was classified into four categories: mild abuse (absence of genital contact), mild (emotional or sexual humiliation), moderate abuse (genital contact), and severe abuse (penetration) (Arabic version appendix1).

Moreover, Female sexual dysfunction evaluation was completed via Arabic translated version of Female Sexual Functioning Index (FSFI) Anis et al.,(11) that comprised six domains (desire, arousal, lubrication, orgasm, satisfaction, and pain) with score ranged of 0 (or 1) to 5 for each parameter so the entire FSFI score ranged from 2 to 36 (Box1): . Every single question in the FSFI questionnaire was explained to cases to be answered in an appropriate and silent private environment and they were asked to feel free to explain about the meaning of some words. Higher scores indicate a better sexual functioning with a cut off 26.55 or less is indicative of sexual dysfunction according to a validation study (Arabic version appendix1).

All the answers for both questionnaires were collected and revised to make sure that they were complete. The full scale score is obtained by adding the six domain scores to obtain the full scale score.

**Statistical analysis**

The data was collected, reviewed, coded and entered into an excel sheet. Data will be analyzed by using SPSS software. Dess at w NA: Not applicable. ^Independent t-test. #C Table (6) showed that: Cases with menstrual abnormalities and postmenstrual spotting had significantly higher nich depth.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Item Number</th>
<th>Score range</th>
<th>Factor</th>
<th>Minimum score</th>
<th>Maximum score</th>
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<td>Orgasm</td>
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<td>0</td>
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<tr>
<td>Satisfaction</td>
<td>14,15, 16</td>
<td>0 or 1-5*</td>
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<td>0.8</td>
<td>6.0</td>
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<tr>
<td>Pain</td>
<td>17,18, 19</td>
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</table>

**Full scale score**

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<tbody>
<tr>
<td><strong>2.0</strong></td>
<td><strong>36.0</strong></td>
</tr>
</tbody>
</table>
Statistical analysis

Analysis of data as conducted using SPSS (statistical program for social science version 23) software (Spss Inc, Chicago, ILL Company). Quantitative data were statistically represented in terms of mean ± standard deviation (± SD) while categorical data were represented as frequency and percentage. Comparison of quantitative data was done using (Mann Whitney U) test for independent samples while categorical data were compared using (Chi squared test) or (Fisher exact test) when appropriate. A probability value (p value) > 0.05 was considered statistically insignificant, a probability value (p value) < 0.05 was considered statistically significant & a probability value (p value) < 0.001 was considered statistically highly significant.

Results

Regarding demographic characteristics of the studied 205 infertile cases and 205 fertile control counterparts, results of the current work revealed that there was non-statistically significant difference between the infertile and control groups regarding age, marriage years, residence, female genital mutilation, educational level, employment and husband education. However BMI was significantly higher among the infertile group as the mean BMI of the infertile ladies was 27.33±3.11 kg/m² versus 24.87±3.69 kg/m² in their fertile peers (P<0.001). Husband age was statistically significant higher among the control group (P<0.001) and the percentage of the unemployed husbands was significantly higher among the infertile group (25.9%) than the control group (16.6%) (P=0.02) (Table 1).

Regarding the infertility data, the mean duration of infertility was 4.13 ± 2.25 years and 151 (73.7%) of participants had Primary infertility while 54 (26.3%) had secondary infertility in the infertile group (Table 1).

Regarding NorVold Domestic Abuse Questionnaire (NORAQ) analysis, results showed that regarding the emotional violence, there was non-statistically significant difference between the percentage of cases who reported emotional violence the infertile cases (42.0%) and controls 40.5%. However, the frequency of emotional violence occurrence was statistically significant higher among infertile group (the median was higher than that in the fertile peers). Mild emotional violence was the most prevalent grade of violence in nearly one fifth (20%) of the population "fertile and infertile were equal" (Table 2).

Regarding physical violence, 30.7% of the infertile cases in the current research reported that they had a physical violence compared to only 15.6% in the fertile controls (P<0.001) and there was statistically significant difference between infertile and control groups regarding occurrence, frequency and grades of physical violence as they were higher among infertile group (Table 2).

Regarding sexual violence it was the least represented in our work as only 21.5% of the infertile cases in our research reported that they had a sexual violence compared to only 14.6% in the fertile controls and the difference was non-statistically significant (P=0.07). Mild abuse, no genital contact was the most reported complain in this category of violence by 11.6% of the infertile cases versus 8.3% by controls but without a statistical significance (Table 2).

As regard analysis of FSFI score, it was found that all its components; (Libido (desire), Sexual arousal, Lubrication, Orgasm, Satisfaction and Pain) were all significantly lower among infertile group (p<0.001) and also the total score was significantly lower among infertile group (p<0.001) (Table 3).

Moreover, the univariate linear regression analysis reveals that BMI, frequency of emotional and physical violence were significant predictors for FSFI total score, while in the multivariate linear regression
only frequency of physical violence was significant predictors for it (Table 4).

Discussion

Regarding demographic characteristics of the studied 205 infertile females and 205 fertile counterparts groups, the elected healthy fertile women were age-matched with the study group and nearly the same socio-demographics in terms of residence and educational level to exclude environmental and age effect on their sexual life. Moreover, marriage years, educational level, employment and husband education were comparable among both studied groups. However BMI was significantly higher among the infertile group as the mean BMI of the infertile ladies was 27.33±3.11 kg/m2 versus 24.87±3.69 kg/m2 in their fertile peers (P<0.001). Husband age was statistically significant higher among the control group (P<0.001) and the percentage of the unemployed husbands was significantly higher among the infertile group (25.9%) than the control group (16.6%) (P=0.02).

Regarding NorVold Domestic Abuse Questionnaire (NORAD), there was non-significant difference between the infertile and control groups regarding occurrence of emotional violence and its grades however frequency of it was significantly higher among infertile group. Regarding physical violence, there was statistically significant difference between infertile and control groups regarding occurrence, frequency and grades of physical violence as they were all higher among infertile group. As regard sexual violence, the occurrence, frequency and grades of sexual violence were higher among infertile group but there was non-statistically significant difference between the infertile and control groups.

These results agreed with Egyptian work conducted by Ghoneim et al., (7) who reported that, 50.98% of their infertile patients were subjected to violence, although difference in violence exposure was not statistically significant in comparison to the fertile ones with mild emotional abuse was predominating (35.29%) like our findings followed by mild physical abuse in 19.61%. Moreover, sexual violence was the least recounted by participants as mild abuse, no genital contact, reported by 5.88% of the infertile cases versus 8.43% by controls but without a statistical significance.

Several studies on this subject matter showed clearly that domestic violence was higher among the infertile women compared to their fertile counterparts. In concordance to our results too, a study conducted in Iran by Poornoozooz et al., (8) reported that entirely the three varieties of violence (physical, sexual, and psychological) were significantly higher in the infertile cases than fertile counterparts. These data indicated that the uppermost proportion of violence against infertile women was in psychological domain (52.4%) and the lowest rate was in the sexual domain (24.5%).

Sheikhan et al., (13) found a closer physical, emotional and sexual violence rates of 34.7%, 5.3%, 74.3% and 47.3%, respectively.

Mansour and Mohdy, (14) in another Egyptian study also reported that psychological violence was the most common type of reported violence against infertile women followed by sexual and physical violence. Abstaining from sexual relationship was the most frequent type of sexual violence in 33.3% and 22.8% of the infertile and fertile cases respectively.

In the same line, a similar study conducted in Valiasr infertility center in Tehran by Ilyasoo et al., (15) as they reported that 61.8% of infertile women were exposed to domestic violence due to their infertility problem. Psychological violence was described in 33.8% followed by physical violence in 14% and sexual violence in 8%.

Also Sami and Ali, (16) reported that a
psychological violence was reported in 60.8% including the verbal violence that includes the threat of separation or divorce.

Our results were also consistent with results from other studies as the prevalence of all the subclasses of violence (physical, verbal, emotional and sexual) was higher among the infertile group in contrast to their fertile counterparts (13, 15-21).

Budh et al. (22) found a lower domestic violence rate of 11.3% among infertile women. However, a study by Pasi et al. (23) gave higher domestic violence rates of 76.3% and 65.9% among infertile women and their fertile counterparts respectively.

In contrast, Solanke and colleagues, (24) in 2018 reported that husband violence was higher among women who have children versus their child deprived counterparts. This controversy may be due to the alteration in cultural and economic circumstances as more children may bear economic burden on their father life and instigating further violence in their families.

Therefore, conflicting results exist regarding the rates of IPV among infertile women but most findings were in line to ours.

The more domestic violence in the infertile cases can be elucidated by that gender unfairness reinforces male violence against women. In a male-controlled construct, either the family or the entire society, men often consider women as their private belongings and also consider marriage as a means to have offspring. The infertile couples are more predisposed to depression, distress, and mental disorders. At the same time, infertile women may deny exposure to violence predominantly sexual violence because of the shame, fear, or guilt about their infertility (25).

Physical violence reported at inferior rates as it can be demonstrated in courts besides the shame the women may feel while revealing their physical violence experiences (26).

The prevalence of IPV among infertile women is a controversy matter and is hard for evaluation precisely due to variable definitions for infertility and IPV used among studies (27).

Regarding Female Sexual Function Index of the fertile and infertile cases in our study, the components of FSFI score (libido (desire), sexual arousal, lubrication, orgasm, satisfaction and Pain) were statistically significant lower among infertile group (p<0.001) and also the total score was statistically significant lower among infertile group (p<0.001). The total score was 15.74±1.66 in the infertile cases compared to 27.35±1.45 in the fertile ones. Univariate linear regression analysis revealed that BMI, frequency of Emotional and physical violence were significant predictors for FSFI total score, while in Multivariate linear regression only frequency of Physical violence was significant predictors for it.

Ghoneim et al., (7) also reported that their studied population had female sexual dysfunction. They differed significantly in terms of arousal and satisfaction which were impaired in infertile women than the fertile group (p= 0.001 and 0.003, respectively). Besides, infertility significantly affected both domains in their study (p-value 0.004 each). These conclusions also corresponded with previous researches (28-30).

Poornowrooz et al., (8) results were nearly similar to the finding of the current work as they reported that sexual problems in the infertile women were more than fertile ones as contents of each domains of sexual function and the mean of entire sexual function in the infertile women were significantly lower than fertile women. Like our findings the total score was 22.53±6.63 in the infertile cases compared to 16.31±9.98 in the fertile ones (p<0.001).

Other research (9,29,31,32) also reported lower scores of total sexual function, arousal, desire, satisfaction, orgasm, and lubrication in infertile women compared with fertile women (P < 0.005).
Most studies show that infertile women have some degree of sexual dysfunction with FSFI scores lower than 26. This is consistent with findings from former literature \(^{(33,34)}\).

This may be justified by the increased stress levels allied to infertility that would negatively impact the marital life as well as sexual health. Whether sexual dysfunction is the trigger or after-effect of infertility is challenging to establish. The psychological stress concomitant with the wish for getting pregnant besides getting sex on demand for a designed timed intercourse that focus for coitus only for the purpose of conception could result in a reduction in enjoyment of sex loss of a couple’s intimacy and would aggravate sexual dysfunction \(^{(10)}\).

Mirblouk et al., \(^{(35)}\) reported similar finding in their comparison of sexual dysfunction in women with infertility and without infertility referred to Al-Zahra Hospital in 2013-2014. However their individual and total scores were higher than the reported in the current work. There was significant differences between desire (3.93±0.94 vs. 3.62±0.91, p=0.004), arousal (4.12±0.90 vs. 3.71±1.06, p=0.001), satisfaction (4.99±0.87 vs. 4.74±1.00, p=0.022) and total sexual dysfunction (26.33±3.82 vs. 34.40±25.13 p=0.011) in infertile and fertile groups but in lubrication (p=0.266), orgasm (p=0.61) and pain (p=0.793) were not significant. The reason of difference can be related to age differences of participating women. Factors such as age, duration of marriage and partner age have been considered as central causes of sexual complaints in infertile women.

Yet, one of the studies, Peterson et al., \(^{(36)}\) found better sexual function among infertile women, however, the difference on the FSFI was very small (infertile women achieved a mean of 24.83±4.72 and fertile ones 23.85±4.34 points). Another study published in 2017 by Emec et al. \(^{(37)}\) did not approve the negative influence of infertility on sexual function as their infertile and fertile women achieved 17.49±7.20 and 17.86±6.41 points on the FSFI, respectively. The last two studies had smaller sample size of population than others.

The evaluated studies also like our findings show that fertile women also experience some degree of sexual dysfunction despite obtaining higher scores.

Karakaya et al., \(^{(38)}\) also reported that correlation values between domestic violence and sexual function index scores were found to be inversely significant (p < 0.05). The research denotes that infertile females who are exposed to violence suffer from more sexual dysfunction. It also indicates that women who are not pleased with their sexual life are more subjected to sexual violence.

At last, the discrepancies between the formerly mentioned studies and the present one could be owing to the study cases’ cultural diversities, sample selection criteria differences and dissimilar tools of data collection. As the preponderance of the research was performed in non-eastern cultures as India, Turkey, and Iran… etc. Thus, the nature of the culture could have its influence the results of this point of research. In our Egyptian culture talking about marital bond and sexual life represent a very sensitive matter to discuss and may cause shame especially if their spouse are present at the time of the examination.

The strengths of this research is summarized in that that there is a paucity of studies in our country that opened that gate and the published data about sexual dysfunction and partner violence among Egyptian females are still scare due to the shame or the fear of most cases to discuss this matter. Also sample size was relatively adequate with recruiting a relatively matched fertile control group.

Some of the limitations of our study include that most cases were selected from few centers. Therefore, the results cannot be generalized to the entire population. So, we recommend a large multi-center study to target the various aspects of infertile couples’ quality.
of marital and sexual life for both partners from multitude of cultures and customs and thus; the results can be representative to the entire population. Furthermore, this study did not take into account the effects of various infertility etiologies on sexual function. In addition the interview with case to fulfill the questionnaires face-to-face might have resulted in stress and discomfort to the case and may be bias resulted.

**Conclusion**

Infertile women are more likely to be exposed to physical, sexual and psychological violence. Psychological violence was found to be the most common type of reported violence against infertile women followed by physical and sexual violence. Moreover the infertile women had a significantly higher prevalence of sexual dysfunctions than their fertile counterparts.

**Ethical approval:** Approval of ethical committee was obtained from quality education assurance unit, Faculty of Medicine, Benha University Egypt.

**Conflict of interest:** The authors declare that they have no conflicts of interest.

**References**


Tables' legend:

Table (1): Comparison of study groups regarding demographic characteristics

Table (2): Comparison of study groups regarding NorVold Domestic Abuse Questionnaire (NORAQ)

Table (3): Comparison of study groups regarding Female sexual dysfunction (FSFI score).

Table (4): Univariate and Multivariate logistic regression analyses of various variables for prediction of FSFI total score.
Table (1): Comparison of study groups regarding demographic characteristics.

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<tr>
<th>Characteristics</th>
<th>Infertile group (n=205)</th>
<th>Control group (n=205)</th>
<th>Test of sig.</th>
<th>p-value</th>
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<td>Secondary</td>
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<td>rural</td>
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<td>48.3%</td>
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<td>106</td>
<td>51.7%</td>
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<td>no</td>
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<td>Husband employment No. (%)</td>
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Table (2): Comparison of study groups regarding NorVold Domestic Abuse Questionnaire (NORAQ).

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<th>Control group (n=205)</th>
<th>Test of sig.</th>
<th>p-value</th>
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<td>42 20.5%</td>
<td>41 20.0%</td>
<td>0.4</td>
<td>0.9</td>
</tr>
<tr>
<td>moderate</td>
<td>29 14.1%</td>
<td>30 14.6%</td>
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<tr>
<td>severe</td>
<td>15 7.3%</td>
<td>12 5.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical violence (No. &amp; %)</td>
<td>63 30.7%</td>
<td>32 15.6%</td>
<td>13.2</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>Frequency (median &amp; IQR)</td>
<td>2 1-2</td>
<td>1 1-1</td>
<td>3.6</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>Grade No. (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mild</td>
<td>34 16.6%</td>
<td>17 8.3%</td>
<td>14.9</td>
<td>0.002*</td>
</tr>
<tr>
<td>moderate</td>
<td>25 12.2%</td>
<td>12 5.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>severe</td>
<td>5 2.4%</td>
<td>2 1.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual violence (No. &amp; %)</td>
<td>44 21.5%</td>
<td>30 14.6%</td>
<td>3.3</td>
<td>0.07</td>
</tr>
<tr>
<td>Frequency (median &amp; IQR)</td>
<td>1 1-1</td>
<td>1 1-1</td>
<td>0.7</td>
<td>0.5</td>
</tr>
<tr>
<td>Grade No. (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mild abuse, no genital contact</td>
<td>24 11.7%</td>
<td>17 8.3%</td>
<td>3.7</td>
<td>0.5</td>
</tr>
<tr>
<td>Mild abuse, emotional/sexual humiliation</td>
<td>6 2.9%</td>
<td>5 2.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate abuse, genital contact</td>
<td>7 3.4%</td>
<td>4 2.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severe abuse, penetration</td>
<td>6 2.9%</td>
<td>3 1.5%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table (3): Comparison of study groups regarding Female sexual dysfunction (FSFI score)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Infertile group (n=205)</th>
<th>Control group (n=205)</th>
<th>Test of sig.</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean ±SD</td>
<td>mean ±SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Libido (desire)</td>
<td>2.07 ±0.44</td>
<td>4.74 ±0.55</td>
<td>13.6</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>Sexual arousal</td>
<td>1.58 ±0.24</td>
<td>3.87 ±0.31</td>
<td>10.7</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>Lubrication</td>
<td>1.80 ±0.34</td>
<td>2.06 ±0.35</td>
<td>7.7</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>Orgasm</td>
<td>2.20 ±0.37</td>
<td>4.41 ±0.38</td>
<td>5.7</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>1.07 ±0.44</td>
<td>2.43 ±0.42</td>
<td>8.5</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>Pain</td>
<td>1.02 ±0.37</td>
<td>2.83 ±0.29</td>
<td>5.6</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>Total</td>
<td>15.74 ±1.66</td>
<td>27.35 ±1.45</td>
<td>9.8</td>
<td>&lt;0.001*</td>
</tr>
</tbody>
</table>
Table (4): Univariate and Multivariate logistic regression analyses of various variables for prediction of FSFI total score.

<table>
<thead>
<tr>
<th></th>
<th>Univariate analysis</th>
<th>Multivariate analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>p-value</td>
</tr>
<tr>
<td>Age</td>
<td>-0.032</td>
<td>0.523</td>
</tr>
<tr>
<td>BMI</td>
<td>-0.158</td>
<td>0.001*</td>
</tr>
<tr>
<td>Residence</td>
<td>0.069</td>
<td>0.163</td>
</tr>
<tr>
<td>Female genital mutilation</td>
<td>0.063</td>
<td>0.204</td>
</tr>
<tr>
<td>years of marriage</td>
<td>-0.058</td>
<td>0.241</td>
</tr>
<tr>
<td>Infertility type</td>
<td>0.012</td>
<td>0.862</td>
</tr>
<tr>
<td>years of infertility</td>
<td>-0.020</td>
<td>0.776</td>
</tr>
<tr>
<td>Educational level</td>
<td>0.004</td>
<td>0.937</td>
</tr>
<tr>
<td>Employment status</td>
<td>-0.014</td>
<td>0.770</td>
</tr>
<tr>
<td>Husband age</td>
<td>-0.021</td>
<td>0.674</td>
</tr>
<tr>
<td>Husband education</td>
<td>0.002</td>
<td>0.972</td>
</tr>
<tr>
<td>Husband employment</td>
<td>-0.013</td>
<td>0.796</td>
</tr>
<tr>
<td>Emotional violence</td>
<td>-0.241</td>
<td>0.002*</td>
</tr>
<tr>
<td>Physical violence</td>
<td>-0.254</td>
<td>0.013*</td>
</tr>
<tr>
<td>Sexual violence</td>
<td>-0.080</td>
<td>0.506</td>
</tr>
</tbody>
</table>

ملحق 1: “استبيان نورفولد للعنف المنزلي”

**الإيذاء العاطفي**

هل قد عانت من أي شخص بانتظام أو لفترة أطول يحاول كتبك أو إهانتك أو إذا ذلك؟

إيذاء معتدل
إيذاء متوسط
إيذاء قاسي

هل قد عانت من أي شخص بانتظام أو بعده أو في المرة الأولى؟

إيذاء معتدل
إيذاء متوسط
إيذاء قاسي

هل عانت من أي شخص ابتهاج أو قياساته أو مشاهدته؟

إيذاء معتدل
إيذاء متوسط
إيذاء قاسي

هل عانت من أي شخص يهدد حياتك، على سبيل المثال يحاول أن يخنقك باستخدام سلاح؟

إيذاء معتدل
إيذاء متوسط
إيذاء قاسي

**الإيذاء البدني**

هل قد عانت من أي شخص يضربك أو يصفعك على وجهك أو يوقلك بثبات ضد رغبتك؟

إيذاء معتدل
إيذاء متوسط
إيذاء قاسي

هل قد عانت من أي شخص يضربك بقسوته أو قطعه أو يصفعه أو ينكذك أو يدفعك بعنف أو يغلبك؟

إيذاء معتدل
إيذاء متوسط
إيذاء قاسي

هل عانت من أي شخص يهدد حياتك؟

إيذاء معتدل
إيذاء متوسط
إيذاء قاسي

**الإيذاء الجنسي**

هل هناك أي شخص ضد رغبتك قد لمس أجزاء من جسمك غير الأعضاء الجنسية"بطريقة جنسية”؟

إيذاء معتدل
إيذاء معتدل مع إزالة عاطفي أو جنسي

إيذاء معتدل، مع إزالة تواصل
إيذاء معتدل مع إزالة جنسي

هل تلقت بطريقة أخرى جنسية. مثل ذلك: بإجابك على رؤية فيلم إباحي أو ما شابه ذلك?

إيذاء معتدل
إيذاء معتدل مع إزالة عاطفي أو جنسي

إيذاء معتدل مع إزالة تواصل
إيذاء معتدل مع إزالة جنسي

هل هناك أي شخص ضد رغبتك قد لمس أجزاء من جسمك غير الأعضاء التناسلية "بطريقة جنسية"؟

إيذاء معتدل
إيذاء معتدل مع إزالة عاطفي أو جنسي

إيذاء معتدل مع إزالة تواصل
إيذاء معتدل مع إزالة جنسي

هل هناك أي شخص ضد رغبتك قد لمس أجزاء من جسمك أو فمك أو مستقيمك أو حار순 في أي منهم أو وضع أو حاول أن يضعم شيء أو جزء آخر من الجسم في مهنته أو الفم أو المستقيم؟

إيذاء معتدل
إيذاء معتدل مع إزالة عاطفي أو جنسي

إيذاء معتدل مع إزالة تواصل
إيذاء معتدل مع إزالة جنسي

هل هناك أي شخص ضد رغبتك قد لمس أجزاء من جسمك أو فمك أو مستقيمك أو حارو في أي منهم أو وضع أو حاول أن يضعم شيء أو جزء آخر من الجسم في مهنته أو الفم أو المستقيم؟

إيذاء معتدل
إيذاء معتدل مع إزالة عاطفي أو جنسي

إيذاء معتدل مع إزالة تواصل
إيذاء معتدل مع إزالة جنسي
ملحق 2: "مؤشر الوظيفة الجنسية لدى إناث"

مع مراعاة اختيار إجابة واحدة لكل سؤال

1- على مدار الأسابيع الأربعة الماضية، كم مرة شعرت بالرغبة في العلاقة الزوجية؟
   ٥ = دائمًا
   ٤ = غالبًا (أكثر من نصف عدد المرات تقريبًا)
   ٣ = أحيانًا (نصف عدد المرات تقريبًا)
   ٢ = نادراً (أقل من نصف عدد المرات تقريبًا)
   ١ = لا يحدث

2- في الشهر الأخير، ما هي درجة الرغبة في العلاقة الزوجية الجنسية؟
   ٥ = عالية جداً
   ٤ = عالية
   ٣ = متوسط
   ٢ = منخفض
   ١ = منخفض جداً أو منعدم

3- في الشهر الأخير، كم عدد المرات التي شعرت فيها بالإثارة أثناء العلاقة الزوجية الجنسية؟
   ٥ = لا يوجد علاقة جزئية جنسية
   ٤ = غالبًا (أكثر من نصف عدد المرات تقريبًا)
   ٣ = أحيانًا (نصف عدد المرات تقريبًا)
   ٢ = نادراً (أقل من نصف عدد المرات تقريبًا)
   ١ = لا يحدث

4- في الشهر الأخير ما هي درجة شعورك بالاثارة أثناء العلاقة الزوجية الجنسية؟
   ٥ = عالية جداً
   ٤ = عالية
   ٣ = متوسط
   ٢ = منخفض
   ١ = منخفض جداً أو منعدم

5- في الشهر الأخير، ما مدى تفكك في وصولك للاثيراة أثناء العلاقة الزوجية الجنسية؟
   ٥ = لا يوجد نشاط جنسي
   ٤ = عالي
   ٣ = متوسط
   ٢ = منخفض
   ١ = منخفض جداً أو منعدم

6- في الشهر الأخير، كم عدد المرات التي كنت فيها راضيًا من وصولك للاثيراة أثناء العلاقة الزوجية الجنسية؟
   ٥ = دائمًا
   ٤ = غالبًا (أكثر من نصف عدد المرات تقريبًا)
   ٣ = أحيانًا (نصف عدد المرات تقريبًا)
   ٢ = نادراً (أقل من نصف عدد المرات تقريبًا)
   ١ = لا يحدث

7- في الشهر الأخير، كم عدد المرات التي شعرت فيها بحذو من "تزلق"؟ المهمل أثناء العلاقة الزوجية الجنسية؟
   ٥ = دائمًا
   ٤ = غالبًا (أكثر من نصف عدد المرات تقريبًا)
   ٣ = أحيانًا (نصف عدد المرات تقريبًا)
   ٢ = نادراً (أقل من نصف عدد المرات تقريبًا)
   ١ = لا يوجد

8- في الشهر الأخير، ما مدى صعوبة حدوث بثل "تزلق"؟ المهمل أثناء العلاقة الزوجية الجنسية؟
   ١ = مستحيل
   ٢ = صعب جداً
   ٣ = صعب
   ٤ = لا يوجد صعوبة
   ٥ = دائمًا

9- في الشهر الأخير، كم عدد المرات التي تكون فيها قادرًا على المحافظة على حدوث بثل "تزلق"؟ المهم أثناء العلاقة الزوجية الجنسية؟
   ٥ = دائمًا
   ٤ = غالبًا (أكثر من نصف عدد المرات تقريبًا)
   ٣ = أحيانًا (نصف عدد المرات تقريبًا)
   ٢ = نادراً (أقل من نصف عدد المرات تقريبًا)
   ١ = لا يحدث
10. في الشهر الأخير، ما مدى صعوبة المحافظة على حدوث بآلة "تزاكي" المهبل أثناء العلاقة الزوجية الجنسية؟
1 = مستحيل
2 = صعب جدا
3 = صعب
4 = صعب بعض الشيء
5 = لا يوجد صعوبة

11. في الشهر الأخير، كم عدد المرات التي وصلتي فيها الى الشبيق "النشوة أو النزوة" أثناء العلاقة الزوجية الجنسية؟
1 = لا يوجد علاقة جزئية جنسية
2 = رضاية جدا
3 = رضاية أو غير رضاية يستويان
4 = مستاء جدا
5 = لا يوجد علاقة جزئية جنسية

12. في الشهر الأخير، ما مدى صعوبة الوصول إلى الشبيق "النشوة أو النزوة" أثناء العلاقة الزوجية الجنسية؟
1 = لا يوجد علاقة جزئية جنسية
2 = صعب جدا
3 = صعب
4 = صعب بعض الشيء
5 = لا يوجد صعوبة

13. في الشهر الأخير، ما مدى رضاك عن قدرتك على الوصول إلى الشبيق "النشوة أو النزوة" أثناء العلاقة الزوجية الجنسية؟
1 = لا يوجد علاقة جزئية جنسية
2 = رضاية جدا
3 = رضاية أو غير رضاية يستويان
4 = مستاء جدا
5 = لا يوجد علاقة جزئية جنسية

14. في الشهر الأخير، ما مدى رضاك عن قدرك العاطفي أثناء النشاط الجنسي من زوجك أثناء العلاقة الزوجية الجنسية؟
1 = لا يوجد علاقة جزئية جنسية
2 = رضاية جدا
3 = رضاية أو غير رضاية يستويان
4 = مستاء جدا
5 = لا يوجد علاقة جزئية جنسية

15. في الشهر الأخير، ما مدى رضاك عن علاقتك الجنسية مع زوجك؟
1 = لا يوجد علاقة جزئية جنسية
2 = رضاية جدا
3 = رضاية أو غير رضاية يستويان
4 = مستاء جدا
5 = لا يوجد علاقة جزئية جنسية

16. في الشهر الأخير، ما مدى رضاك عن الجانب الجنسي في حياتك عموما؟
1 = لا يوجد علاقة جزئية جنسية
2 = رضاية جدا
3 = رضاية أو غير رضاية يستويان
4 = مستاء جدا
5 = لا يوجد علاقة جزئية جنسية

17. في الشهر الأخير، كم مرة شعرت بعدم الراحة أو الألم أثناء الإبلاج أثناء العلاقة الزوجية الجنسية؟
1 = لا يوجد علاقة جزئية جنسية
2 = رضاية جدا
3 = رضاية أو غير رضاية يستويان
4 = مستاء جدا
5 = لا يوجد علاقة جزئية جنسية

18. في الشهر الأخير، كم مرة شعرت بعدم الراحة أو الألم أثناء الإبلاج بعد العلاقة الزوجية الجنسية؟
1 = لا يوجد علاقة جزئية جنسية
2 = رضاية جدا
3 = رضاية أو غير رضاية يستويان
4 = مستاء جدا
5 = لا يوجد علاقة جزئية جنسية
19: في الشهر الأخير، ما هي درجة عدم الراحة أو الألم أثناء أو بعد الإيذاع بعد العلاقة الزوجية الجنسية؟

<table>
<thead>
<tr>
<th>عدد</th>
<th>حالة</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>عالي جدا</td>
</tr>
<tr>
<td>3</td>
<td>متوسط</td>
</tr>
<tr>
<td>1</td>
<td>منخفض جدًا أو منعدم</td>
</tr>
<tr>
<td>0</td>
<td>لا يوجد نشاط جنسي</td>
</tr>
<tr>
<td>4</td>
<td>عالي</td>
</tr>
<tr>
<td>2</td>
<td>منخفض</td>
</tr>
</tbody>
</table>