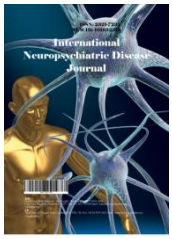

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The Relationship between Sexual Dysfunctions and Depression in Premenopausal Women

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Authors' contributions

This work was carried out in collaboration among all authors. Authors TMES and AAKB designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Authors MAHS and SSG managed the analyses of the study. Author SSG managed the literature searches. All authors read and approved the final manuscript.

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Original Research Article

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ABSTRACT

Aims: To evaluate SD in depressed married premenopausal women and to study mood in married women with primary sexual complain.
Study Design: Cross-sectional case control research.
Place and Duration of Study: Neuropsychiatry and Obstetrics and Gynecology departments at Tanta University Hospital. The study was conducted from April 2019 to the end of March 2020.
Methodology: This research involved 300 females. Subjects were allocated into three equal groups: group 1(females with major depressive disorders who met DSM-5 diagnostic criteria for Major depressive disorders and were drug naïve, group 2: females with primary sexual complain and/or disorders and group 3: normal healthy female did not have history of medical or psychiatric diseases. All cases were subjected to psychiatric interview by Arabic version of MINI, Arabic version of the female sexual index, Hamilton depression scale, Hamilton anxiety scale, quality of life (QOL) assessment and modified Fahmy and Sherbini scale for socioeconomic study.
Results: There was positive significant correlations between female sexual index and Hamilton depression and anxiety score (p <0.001, p=0.012 respectively). There were negative significant correlations between female sexual index and physical, Psychological, social domains and total score of modified Fahmy& Sherbiny scale (p=0.073, 0.039, 0.003, 0.009) respectively.

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Conclusion: Severity of depression is correlated to severity of SD among female cases with major depressive disorder. QOL is affected significantly by depression and by presence of sexual complaints and/or disorders among women as high incidence of SD in women with probable depression and is linked with significantly worse QOL.

Keywords: Sexual dysfunctions; depression; premenopausal women.

1. INTRODUCTION

Sexual dysfunction (SD) is a persistently upsetting alteration in any phase of the sexual response cycle. Tradition holds that these phases include desire, arousal, orgasm, and resolution. Female SD is a prevalent issue that has a substantial influence on the health of both partners [1]. Sexual intercourse has a significant influence in marital happiness. Couples' discontentment in this regard may result in many physical, social and mental difficulties [2,3].

There are multiple risk factors of female SD such as organic disorders (e.g., Diabetes Mellitus, hypertension, obesity, - renal insufficiency) and psychiatric disorders (e.g., anxiety - depression - schizophrenia) [4-6].

Generalized anxiety disorder and Depressive disorder lead to decrease quality of life (QOL) in several areas (psychological - physical - social and sexual function) [7]. During the reproductive time, women are at elevated risk for depression and anxiety, as well as SD [8].

Depression may damage sexual health by diminishing the motivation or reward associated with participating in enjoyable behaviours[9]. Epidemiological research confirms the deleterious impact of depression on orgasmic experience, as well as its substantial relationship with greater SD [10]. Depression's anhedonia has been related specifically to decreased want and reactivity, as well as the likelihood of sexual discomfort [10].

Negative mood has been demonstrated to affect sexual performance even if there is no severe depression. [11]. Positive or unpleasant sexual encounters alter mood the day after a sexual encounter [12,13].

Generalized anxiety disorder is a frequent condition that affects females disproportionately. Epidemiological studies demonstrate that anxiety disorders are associated with poor sexual desire and excitement [14,15] with more recent study has shown a substantial correlation between anxiety and orgasmic problems, sexual discomfort [16], and enhanced sympathetic nervous system action during sexual excitement, so decrease any potential sexual pleasure [14]. The reduction of sexual desire and excitement, together with the postponement or absence of orgasm, are often described. Inadequate lubrication and resulting pain and discomfort are less common concerns [17,18]. The purpose of this research was to evaluate SD in depressed married premenopausal women and to study mood in married women with primary sexual complain.

2. MATERIALS AND METHODS

This cross-sectional case control research involved 300 females from April 2019 to the end of April 2021.It was carried out at Tanta University Hospital. Females aged above 18 years, were married and premenopausal women.

An informed consent was achieved from all participants in this research. The research was done after approval from the Ethical Committee Tanta University Hospitals.

Exclusion criteria were patients on psychotropic medications, postmenopausal, pregnant women, medical diseases that may affect sexual performance e.g., diabetes mellitus, endocrinal disturbances, history of genital tract anomalies or operations and past history of major psychiatric disorders e. g. Schizophrenia& substance abuse.

Subjects were allocated into three equal groups: group 1: females with major depressive disorders. All subjects met DSM-5 diagnostic criteria for Major depressive disorders. All cases were drug naïve (either new cases, recent onset or noncompliant on their medical treatment, or stopped their treatment for at least two weeks), group 2: females with primary sexual complain and/or disorders and group 3: normal healthy female did not have history of medical or psychiatric diseases.

All cases were subjected to psychiatric interview by Arabic version of MINI, Arabic version of the

female sexual index, Hamilton depression scale, Hamilton anxiety scale, QOL assessment and modified Fahmy and Sherbini scale for socioeconomic study.

2.1 Psychiatric Interview by Arabic Version of MINI

Is a brief structured diagnostic interview for DSM-IV and ICD-10 psychiatric disorders, created by 41 psychiatrists and clinicians in the United States and Europe with a typical administration duration of 15 minutes. Main modules within the MINI are: 1. Major Depressive Episodes 2. Dysthymia 3. Suicidality 4. (Hypo) manic episodes 5. Panic Disorder 6. Agoraphobia 7. Social Phobia 8. Obsessive Compulsive disorder 9. Posttraumatic Stress Disorder 10. Alcohol dependence / Abuse 11. Drug Dependence / Abuse 12. Psychotic Disorders 13. Anorexia Nervosa 14. Bulimia Nervosa 15. Generalized Anxiety Disorder 16. Antisocial Personality Disorder [19,20].

2.2 Arabic Version of the Female Sexual Index [21]

FSFI is a 19-item questionnaire that examines FSD in the four weeks before to the research. Ar. FSFI inquiries span six areas, namely:; desire, arousal, lubrication, orgasm, satisfaction and pain: questions 1 and 2 relate to desire, questions 3–6 to arousal, questions 7–10 to lubrication, questions 11–13 to orgasm, questions 14–16 to satisfaction, and questions 17–19 to pain, For each question, 5 to 6 alternatives are presented and assigned a score between 0 and 5, with 0 representing no sexual activity and 5 representing typical sexual activity. Lower scores of Ar. FSFI carry higher probability of having FSD. Good to exceptional internal reliability was found for the overall FSFI and six domain scores, with Cronbach alpha's >0.9 for the combined sample and >0.8 for both the sexually dysfunctional and non-dysfunctional groups separately.

2.3 Hamilton Depression Scale

The Hamilton Depression Rating Scale (HDRS) is based on a multiple-item questionnaire and focuses specifically on the assessment of recovery from depression. Originally consisted of 17 items (HDRS-17), four extra questions were added for specific clinical information. On a 3- or 5-point scale and takes the patient 20 minutes to complete. Eight items are scored on a 5-point scale, ranging from 0 = not present to 4 = severe. Nine items are scored from 0–2. The total score was calculated by summation of the first seventeen items [22].

The intensity of depression was categorised into the following four categories: 0–7 indicate normal individuals, 8–16 indicate mild depression, 17–23 indicate moderate depression, while scores more than 24 indicate severe depression. With the extra four questions utilised for further clinical evaluation, such as if the patient exhibited diurnal fluctuations or paranoid symptoms. The psychometric properties of HDRS; 86.4% sensitivity and 92.2% specificity (Zitman, et al 1990). We used the validated Arabic version for (Alhadi A. et al, 2018) [23,24].

2.4. Hamilton Anxiety Scale

The HAM-A was one of the first rating scales created to quantify the intensity of anxiety symptoms, and it is still frequently utilized in clinical and scientific contexts today. It was developed in 1959 by Dr. M. Hamilton. The scale consists of 14 items, each defined by a series of symptoms, and evaluates both psychic anxiety (mental agitation and psychological distress) and somatic anxiety (physical complaints related to anxiety). Each item is scored on a scale of 0 (not present) to 4 (severe), with a total score range of 0–56, where >17/56 is taken to indicate mild anxiety; 25–30 is considered moderate–severe. The administration time is 10–15 minutes. The psychometric properties of HDRS; 85.7% sensitivity and 63.5% specificity. (Katherine, et al, 2001) We used the Arabic translated and validated version for Fateem,1998 [25,26].

2.5 Quality of Life (QOL) Assessment

The World Health Organization QOL-BREF (WHOQOL-BREF) was first released in 1996 as a field trial version by the WHO. The WHOQOL-BREF is meant to assess an individual's perception of their QOL, which is described by the WHO as "individuals' views of their situation in life in respect to their objectives, expectations, standards, and worries" [27]. The WHOQOL-BREF assesses QOL in four distinct dimensions (Physical Health, Psychological, Social Relationships, and Environment). The measure is computed by aggregating the point values for the questions pertaining to each domain and then translating the scores to a 0–100-point range, or alternatively a 4–20-point interval. The

purpose of the first two items of the WHOQOL-BREF is to offer a worldwide evaluation of QOL. Higher scores in each area correlate with a higher perception of QOL [28].

2.6 Modified Fahmy and Sherbini Scale for Socioeconomic Study

This scale includes 7 domains with a total score of 84 that include [29]: Education and cultural domain: (for both husband & wife) (score = 30) in which zero means illiterate and 14 means postgraduates for each husband and wife. Occupation domain (for both husband & wife) (score = 10) in which zero means not working and five means professionals for each husband and wife. Family possessions domain (score = 12: 1 each for the presence of items) Refrigerator – Radio – Television – Washing machine – Telephone/ mobile phone – Car – Agricultural land – Non-agricultural land for housing – Shop or animal shed – Other house (beside the house in which the family is living) – Animals/poultry – Computer/ Internet. Family domain (score = 10) Residence: Urban slum = 0; Rural = 1; Urban = 2 Number of family members (parents, children & all dependents): < 5 members = 2; ≥ 5 members = 1 Number of earning family members: 1 member = 1; 2 members = 2; ≥ 3 members = 3 Education of children (aged ≥ 5 years, whether free or private education): All children going or ever gone to school/university = 3; ≥ 50% going or ever gone to school/university = 2; < 50% going or ever gone to school/university = 1; None go/gone to school/ university/not applicable = 0. Home sanitation domain (score = 12) Services (1 each for the presence of the following items): Pure water supply – Electricity – Natural gas – Sewerage system – Municipal collection of solid wastes – Flush latrine – Air conditioning Type of house: Owned, ≥ 4 rooms = 4; Owned, < 4 rooms = 3; Rented, ≥ 4 rooms = 2; Rented, < 4 rooms = 1; No place to reside = 0 Crowing index: (number of family members divided by number of rooms): ≤ 1 person per room = 1 = 1; > 1 person per room = 0. Economic domain (score = 5) Income from all sources: In debt = 0; 1 Just meet routine expenses = 1; Meet routine expenses and emergencies = 2; Able to save/invest money = 3 Family receives governmental support: Yes = 1; No = 0 Family pays tax: Yes = 1; No = 0. Health care domain (score = 5) Usual source of health care: Private health facilities = 5; Health insurance = 4; Free governmental health service = 3; More than one of the above sources = 2; Traditional healer/self-care = 1.

2.7 Statistical Analysis

Differences in baseline characteristics between the patients and control group were assessed with one way ANOVA (Kruskal Wallis test) and chi-square test. Also, comparisons between both groups as regards scores and results were assessed by One way (Kruskal Wallis test) ANOVA (for scores and quantitative variables), chi-square test and Fisher Exact test (for qualitative values). The correlation coefficient was used to study the correlations among the used measures and basic data of both groups. All statistical assessments were done by SPSS 22 (Statistical Package for Social Sciences). A two tailed P value < 0.05 was considered significant.

3. RESULTS

Age, duration of marriage, residence was insignificant difference between these groups. Number of children significant variance among groups (p= 0.028). There is no significant variance among groups regarding type of labor. There was no significant variance among three groups as regards type of their jobs. Table 1.

Modified Fahmy & Sherbiny scale was insignificant difference between these groups. Among the control group 20% of them reported sexual complaints after asking about detailed sexual history, with significant variance among groups as p = <0.001, but post hoc. Test after Kruskal Wallis test showed that Pa (depressed & SD=0.246, while between SD &normal population pb=<0.001 and between depressed group &normal population had significant difference Pc=<0.001. Table 2.

Physical domain of quality, psychological domain, social relation, environment and QOL total score were significance between depressed & SD (p= <0.001), depressed & normal population (p= <0.001). female SD was significant variance among the three groups (P=0.007). Arousal was in significant variance among groups. Lubrication was significant variance among groups (p=<0.001). Significance after post hoc between control and group 1 Pc<0.001, while between group 2 & control p=<0.001.

Table 1. Age, duration of marriage, number of children, type of labor, residence, occupation and educational level of the studied groups

Variables		Group 1 (n=100)	Group 2 (n=100)	Control Group (n=100)	p
Age		31.4± 4.2	31.4± 4.2	32.3± 4.6	0.168
Duration of marriage		9.0± 4.9	8.6± 5.1	10.2± 5.6	0.080
Number of children		2.9 ± 1.17	2.9 ± 1.40	3.4 ± 1.41	0.028
Type of labor	Normal	57(57%)	56(56%)	54(54%)	0.910
	C.S	43(43%)	44(44%)	46(46%)	
Residence	Urban	45(45%)	41(41%)	47(47%)	0.685
	Rural	55(55%)	59(59%)	53(53%)	
Occupation	Housewife	34(34%)	38(38%)	46(46%)	0.698
	Manual worker or farmer	26(26%)	26(26%)	21(21%)	
	Professional or semiprofessional	8(8%)	9(9%)	9(9%)	
	Others	32(32%)	27(27%)	24(24%)	
Educational level	Illiterate	17(17%)	14(14%)	10(10%)	0.318
	Primary	16(16%)	9(9%)	9(9%)	
	Preparatory	15(15%)	11(11%)	11(11%)	
	Secondary	28(28%)	30(30%)	36(36%)	
	University	24(24%)	36(36%)	34(34%)	

Data are presented as mean ± SD or frequency (%). BMI: Body mass index, BSA: Body surface area, Hb: hemoglobin, TLC: total leucocytic count, CRP: C-reactive protein, PaO2: arterial oxygen tension, PaCO2: carbon dioxide tension

Table 2. Modified fahmy and sherbiny scale, sexual complaints of the studied groups

Variables	Group 1 (n=100)	Group 2 (n=100)	Control Group (n=100)	$\chi 2$	p
Very low	17(17%)	18(18%)	21(21%)	3.871	0.694
Low	38(38%)	34(34%)	34(34%)		
Moderate	37(37%)	35(35%)	39(39%)		
High	8(8%)	13(13%)	6(6%)		
Sexual complaints					
No sexual complaints	97 (97%)	00 (0%)	100 (100%)	X^2=287,09 X2a=3,046	P=<0.001* P^a=0.246
Spontaneous complaints	3 (3%)	100 (100%)	0(0%)	X2b=200,00 X2c=188,35	P^b=<0.001* P^c=<0.001*
After asking about	48 (48%)	100 (100%)	20 (20%)		

Data are presented as mean ± SD or frequency (%), p ≤ 0.05 (statistically significant), Pa (group 1 & group2) pb (group 2 & control group), Pc (group 1 & control group). x2a (group 1 & group2), x2b (group 2 & control group), x2c (group 1 & control)

Orgasm was insignificant variance among groups (p=0.359), Satisfaction was insignificant difference between them. Pain was significant variance among groups (P = <0.001). While Significance after post hoc among control and group 1 p=<0.001, and between group 1&2 =<0.001. Total score was insignificant difference Table 3.

Hamilton depression scale was significantly increased in group 1 compared to the other two groups (<0.001) and the variance among the three groups was significant (p=0.000). Hamilton anxiety was not significant variance among the three groups Table 4.

There were positive significant correlations among female sexual index and Hamilton depression and anxiety score (p <0.001, p=0.012 respectively). There were negative significant correlations between female sexual index and physical, Psychological, social domains and total

Table 3. Comparison between groups regarding quality-of-life domains and score of female sexual dysfunction index

Variables	Group 1 (n=100)	Group 2 (n=100)	Control Group (n=100)	F	p
Physical domain	47± 21	68± 18	70± 17	66.949	<0.001*
Psychological domain	52± 20	67± 16	71± 16	56.675	<0.001*
Social relation	56± 22	50± 11	55± 14	13.054	<0.001*
Environment	54± 19	75± 11	74± 10	89.596	<0.001*
Quality of life total score	209±64	261±35	269± 41	56.178	<0.001*
Score of Female Sexual Dysfunction index					
Desire	2.4± 0.99	2.9 ± 1.01	3.4± 1.10	9.893	P=0.007* p^a=0.005
Arousal	2.9± 1.11	3.1 ± 1.16	3.4± 1.10	4.402	0.111
Lubrication	3.4 ± 1.12	3.5± 1.06	5.1± 1.29	33.304	<0.001* P^c<0.001 P^b<0.001
Orgasm	3.1± 1.10	3.5 ± 1.32	5.3± 1.12	2.047	0.359
Satisfaction	3.3 ± 1.14	3.5± 1.27	5.3± 1.12	2.118	0.347
Pain	5.3± 1.12	3.5± 2.09	5.6± 0.50	35.749	<0.001* P^a<0.001 P^c<0.001
Total score	20.4± 4.14	16.5± 5.33	28.1± 4.17	5.987	0.05

F Kruskal Wallis Test, p ≤ 0.05 (statistically significant), p ≤ 0.05 (statistically significant), Pa (group 1 & group 2) pb (group 2 & control group), Pc (group 1 & control group)

Table 4. Comparison between groups regarding Hamilton depression and anxiety scale

Variables	Women with Depression	Women with SD	Community sample	Test of signific	p
Hamilton depression score	22.7± 8.98	19.8± 6.71	12.2± 2.62	χ^{2}** 18.536	P=<0.001 p^c=<0.001 p^b=0.002
Mild	38 (38%)	16 (16%)	7 (7%)	χ2 **	P=<0.001
Moderate	52 (52%)	9 (9%)	3 (3%)	45.63	
Sever	10 (10%)	0 (0%)	0 (0%)		
Very sever	0(0%)	0 (0%)	0 (0%)		
Hamilton anxiety scale					
Mild	10 (10%)	7 (7%)	6 (6%)	χ2 ***	0.125
Moderate	13 (13%)	0 (0%)	0 (0%)	9.981	
Sever	0 (0%)	0 (0%)	0 (0%)		
Very sever	0 (0%)	0 (0%)	0 (0%)		

p ≤ 0.05 (statistically significant) p ≤ 0.05 (statistically significant), Pa (group 1 & group 2) pb (group 2 & control group), Pc (group 1 & control group)

Table 5. Correlation between female sexual dysfunction index and other parameters

	Female sexual dysfunction index	
	r_s**	p
Age	- 0.020	0.756
Duration of marriage	- 0.039	0.549
No. of children	- 0.077	0.231
Residence	0.070	0.280
Hamilton depression score	**0.423**	<0.001*
Hamilton anxiety score	**0.185**	0.012*
Modified Fahmy and Sherbiny scale Physical	**- 0.104**	0.817

	Female sexual dysfunction index	
	r_s**	p
domain		
Psychological domain	**- 0.119**	0.073
Social relation domain	**- 0.169**	0.039*
Environmental domain	**- 0.012**	0.003*
Quality of life total score	**- 0.151**	0.837

score of modified Fahmy& Sherbiny scale (p=0.073, 0.039, 0.003, 0.009) respectively. There is also negative correlation between female sexual index and age, number of children and duration of marriage Table 5.

4. DISCUSSION

As stigmatising conditions, both psychological and sexual problems in Egyptian culture are multifactorially complicated [30]. The complexity of assessing and treating SD in women is exacerbated by the sensitivity of the subject.

In the present research, we found no significant variance in FSFI scores among women who demonstrated a marriage age of under 21 and those who reported a marriage age of above 21. In addition, there was no correlation among the age of marriage and FSFI scores.

Conforming to a previous research in which females were discovered to have been married for 1–5 years, 25.9% have been married for 5–10 years, and 29.3% have been married for more than 10 years, we found that there was no significant correlation among the length of marriage and sexual issues [31].

The length of marriage, according to a different survey, varied from 1 to 26 years, with an average of 12.3 ± 6.6 years. Compared to the other grouping, those who had been married for more than 10 years had considerably lower FSFI ratings [32].

In the current research, employment position and financial source did not significantly influence sexual function, although the majority of respondents were housewives 118 female, 73 were farmers or do manual work, 26 only with professional or semi-professional work and 83 done other jobs, but 20% of them reported that unfavourable economic statues put a large burden on them and be an aggravating factor for depression and SD.

Elnashar et al., 2007 agree with our study that work hasn't affected SD greatly, but majority of respondents in his study were housewives (70.4%) [33].

This result contradicts the findings of Laumann et al., who discovered a positive association among economic decline and SD [8]. In Egypt, the absence of a link may be due to the deficiency of a substantial disparity between the economic conditions of the analysed groups.

Regardless of the mode of delivery there are insignificant differences between it and depression and SD p=0.910, number of vaginal deliveries in participants of our study was 167 female, caesarean sections were 133 female. Hassanin et al., [32] agreed with that the expense and effort engaged in carrying and rearing children might result in new everyday strains, which can manifest in the partnership as a whole.

On the other hand, the findings of this research were inconsistent with that of Ibrahim et al. who found that type of delivery had a strong relation with depression and also affect sexual health greatly with 63.9% vaginal delivery, 19.8% assisted delivery and Caesarean was 16.3% but significant difference was with vaginal and caesarean section p=0.001 [31].

Through the study there 133 participants who lived in urban and 167 in rural area, with no significant difference of residence in our study, Ibrahim et al., 2013 agreed with our study in that with a large number of subjects (270 in rural and 235 in urban areas) with no significant difference [31].

In the present research we found a strong association between socioeconomic status and depression and SD. Our results indicate that a greater level of education and a higher SES index score serve as safeguards against depression. Higher wealth was connected with reduced probabilities of depression and SD and decreased taboo from the society, our results

indicated that participants with low, very low and moderate SES had more psychiatric problems than that of high SES.

This point is corroborated by Lorant and colleagues [34] meta-analysis of socioeconomic disparities in depression, which found convincingly that low SES persons had a greater likelihood of being depressed, but in our study there is no significant variance of socioeconomic status among groups.

Santos et al., reported that out of 58 subjects (24 with low SES and 28 with moderate SES and with high SES being only 5) and these 2 groups of participants with low and moderate SES found that they had SD (20 with low SES and 21 with moderate and 4 with high SES) So they matched with us that high socioeconomic status may be a protective factor against depression and sexual problems.

We discovered that there are considerable differences across groups in all quality-of-life dimensions p=<0.001. In Egypt, the mean health related QOL ratings for individuals with depression were 47, 52, 56, 54 for the physical, psychological, and social categories, respectively.

These findings are reinforced by a previous research conducted in Brazil [35], South Africa [36] and Germany [37] which likewise indicated that the health-related QOL of depressed individuals is particularly bad. The type of symptoms, damaged self-image, co-morbid conditions, social, occupational, and cognitive impairments, and poor social interactions may all play a significant part in the poor QOL experienced by depressed individuals [37,38].

However, a Pakistani investigation found that the majority of cases with severe depressive illness had a QOL score that was significantly decreased than the average scores of all areas of health related QOL reported in the present research. The gap in findings may be attributable to sociocultural differences among research participants and discrepancies in the screening instruments used to evaluate QOL [39].

We discovered that average of QOL was 68, 67, 50 and 75 for physical, psychological, social and environmental dimensions, respectively.

Based on the fact that physical functioning and bodily pain were the most affected dimensions among the women studied with SD and referring to subjects with depression, our sample results indicate that physical dimensions of QOL are decreased in individuals with SD and depression. This may be explained by the decreased self-esteem, social isolation, and lack of community participation of those who feel stigma associated with their condition, which may result in a reduced QOL.

Additionally, reinforcing the association between physical, social dimensions of QOL that in our society sexual problems is a taboo that women can't express their problems or even talked about it and the amount of social support was favourably connected with depression patients' health related QOL. Except for the physical area, patients with a higher social support level had a better health-related QOL [40].

Using FSFI, we have found that Group 1(depressed females) had significantly higher number of cases with low desire, low level of arousal, lubrication, orgasm and satisfaction than the other two groups. More over 40% of women in the United States reported infrequent desire or pleasure of sex, consistent with the results of Johnson [41] and Oberg et al. [42] who found that forty-five percent of Swedish women had diminished desire.

Other studies found greater rates of decreased libido, ranging from 52% to 87%, [43] although Shokrollahi et al., [44] observed a lower percentage of suppressed desire (15%). This discrepancy in prevalence rate may be explained by variances in disease description, study population, and research technique. In the present research, several individuals attributed their diminished sexual desire to circumcision and socioeconomic factors, such as economic difficulties and increased home responsibilities.

Consistent with prior results, we also discovered a strong association between the degree of depression and FSD in all of its dimensions [45].

This discrepancy in prevalence rate may be due to the different age groups and cultural backgrounds of the women tested, since Laumann et al [8] found distinct patterns of dyspareunia across age and demographic groups. However, Gurel and Atar-Gurel, [46] discovered no link between severe dyspareunia and various sociodemographic variables (i.e. age, parity, income, marital status and education).

In the current study, we used Hamilton depression scale which revealed that participants who had depression most of them with moderate and mild depression with significant difference P=<0.001 which revealed the great effect of depression on women health and sexual health. Unlike Mahmoud et al., 2018 reported that all participating women with moderate to severe depression had FSD.

But Kennedy and colleagues, [47] found that fifty percent of women with significant depression who did not take antidepressants had reduced sexual desire, forty percent had low vaginal lubrication, and fifteen percent had difficulty attaining orgasm.

Limitations: The research sample was not typical of Egyptian women as a whole, limiting the generalizability of these results, it is challenging to demonstrate the validity of our results in the absence of directly comparable investigations, The probable underreporting of female- or male-related data due to embarrassment and study conducted at the era of Covid which may be contributing factor for increased level of depression and anxiety in participants.

4. CONCLUSIONS

Usually, female patients with major depressive disorders not spontaneously mention their sexual problems. The most frequent sexual problems described by female patients at Obstetric and gynaecological clinic are related to pain, desire. Severity of depression is correlated to severity of SD among female cases with major depressive disorder. QOL is affected significantly by depression and by presence of sexual complaints and/or disorders among women as high incidence of SD in women with probable depression and is related with significantly worse QOL. In light of the high frequency of SD in mental patients and the twofold negative consequences of these dysfunctions on the patients' life quality, particularly their marital relationships, it is advised that greater attention be given to these dysfunctions in psychiatric cases.

CONSENT

All authors declare that ‘written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editorial office/Chief Editor/Editorial Board members of this journal.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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