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A Study of Sexual Dysfunction in a Sample of Medicated and non Medicated Egyptian Female Patients with Schizophrenia

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ABSTRACT

Background: the relationship between sexuality and schizophrenia is complex. It may be related to both the psychopathology and the pharmacotherapy, as the sexual functions may be affected by symptoms itself, living with a severe chronic mental health illness, and the adverse effects of antipsychotics or other medications. Systematic studies have revealed that sexual dysfunction is highly prevalent in both untreated and treated schizophrenia patients, affecting 30–80% of women and 45–80% of men. The prevalence of sexual dysfunction may be higher in patients with schizophrenia than in patients treated for other mental disorders. **Aim of the Work:** to compare a group of females with Schizophrenia to healthy female control group regarding frequency and type of sexual dysfunction. **Patients and Methods:** this study was sought to extend our knowledge about the association of schizophrenia and its treatment with sexuality problems. It was done at Institute of Psychiatry, Faculty of Medicine, Ain Shams University to determine the rate of occurrence of sexual dysfunctions in married females with schizophrenia in comparison to control group. It included 90 females diagnosed as schizophrenia (divided into 3 groups of 30s 1-untreated patients 2-patients treated with typical anti psychotics 3- patients treated with Atypical antipsychotics) and 30 females as a control group. **Results:** the study revealed high prevalence of sexual dysfunction among all patients group yet it was highest among the drug naive group as 100% of them had sexual dysfunction. **Conclusion:** the relation between schizophrenia and female sexuality is complex it could be the result of side effect of antipsychotic medications yet the high prevalence of sexual dysfunction among drug naïve patients, suggest that sexual dysfunction is an integral part of the disease.

Keywords: Female Sexual Function Index - type of sexual dysfunction - Schizophrenia

INTRODUCTION

Satisfying sexual life is essential for wellbeing and quality of life for all people especially middle-aged women [(1)]. Women's sexuality is multifactorial, with biological, psychosexual, and context-related factors involved [(2)]. The latter include couples dynamics, family, sociocultural issues and developmental factors. Sexuality in women also involves multisystem, a physiologic response requires the integrity of the hormonal, vascular, nervous, muscular, and immune systems [(3)]. Schizophrenia is a severe and chronic mental illness, associated with high prevalence as (1%) of the population suffers from this condition. Symptoms of schizophrenia typically emerge during adolescence or early adulthood. They are usually classified as either positive, negative or cognitive symptoms [(4)]. The relationship between sexuality and schizophrenia is complex. It may be related to both the psychopathology and the pharmacotherapy, as the sexual functions may be affected by symptoms itself, living with a severe chronic mental health illness, and the adverse effects of antipsychotics or other medications [(5)]. Systematic studies have revealed that sexual dysfunction is highly prevalent in both untreated and treated schizophrenia patients, affecting 30–80% of women and 45–80% of men, the prevalence of sexual dysfunction may be higher in patients with schizophrenia than in patients treated for other mental disorders [(6)]. Symptoms of schizophrenia can affect female sexual functions in many ways. Negative symptoms of schizophrenia can limit the capability for interpersonal and sexual relationships; and their sexual responsiveness and capacity to enjoy close relationships is impaired [(7)]. Moreover, positive symptoms can affect women sexuality as they may experience tactile or auditory hallucinations of a sexual nature, erotomaniac delusions, delusions related to sexual identity, infidelity against partner, and delusions about the shape, size or function of genital organs and hypersexualism which may lead to high risk behaviors, self harm or sexual abuse to or from the patient [(8)]. Also Due to the lack of insight, poor judgment and defective cognitive function, patients could be involved in risky behavior, unplanned pregnancies, exposure to sexually transmitted disease [(9)].

AIM OF THE WORK

To investigate if there was a significant relation between schizophrenia and sexual dysfunctions. To compare between females with schizophrenia on medication and their counterparts who are neuroleptic naive or off medications for at least 3-6 months regarding sexual dysfunctions.

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PATIENTS AND METHODS

A. Approval and consent: 1. Approvals and Ethical consideration: The procedures were reviewed and approved by the Ethical Committee of Ain Shams University. **2. To access the Hospitals:** After taking the approval of the Ethical committee, the form was presented to the manager of the Institute of Psychiatry, Faculty of medicine, Ain Shams University. Approval was undertaken from each to assess the subjects. **3. Ethical considerations: Informed consent: The study was approved by the Ethics Board of Ain Shams University and an informed written consent was taken from each participant in the study. Study subjects: Group one:** A sample of 60 married female cases recruited fulfilling the diagnosis of schizophrenia according to DSM-IV TR, (30 cases received typical antipsychotics and 30 cases received atypical antipsychotics), **Inclusive criteria:** Age: 18 - 45years old (extreme age ranges was excluded to avoid the age related decline in sexual interest in older ages or lack of sexual activity in younger ages). Married and actively engaged in regular sexual relation with a partner. **Exclusive Criteria:** History of surgical procedures on genital area, recent episiotomy, vaginal discharge, bleeding from or infection in genital area, pregnancy, delivery, abortion within the past 6 months. History of major surgeries as mastectomy and hysterectomy or chronic illness. History of hypothyroidism, Diabetes Mellitus, Renal and Liver diseases. History of substance abuse (Alcohol, opiates, etc.) within the past 6 months. History of or current comorbid axis one diagnosis. **Group two:** A sample of 30 married female cases fulfilling the diagnosis of schizophrenia according to DSM-IV TR, either newly diagnosed cases or patients off medications for at least 3-6 months. Selection of research study subjects: controls: 30 healthy married females who are actively engaged in regular sexual relation with partner، matched with no medical or psychiatric history matched with the case groups، who fulfill similar inclusive and exclusive criteria. **Procedures: All study subjects recruited in the research study were subjected to:** Assessment using the Clinical Sheet of the Institute of Psychiatry Ain Shams University involving: Sociodemographic information, History of present illness, Past and Family history **Sexual history:** orientation, frequency of sexual relation, masturbations, Sex practice (penile-vaginal intercourse, anal sex, and oral sex), presence or history of sexual disorders. Full psychiatric history and examinations: including age of onset, duration of illness type of schizophrenia, family history of psychiatric disorders. Full neurological and medical history and examination were applied for both cases and controls to exclude any medical conditions. Cases were assessed using: Arabic version of Structured Clinical Interview for DSM-IV-TR Axis I Disorders (SCID-I):) for clinical assessment and diagnosis of females with schizophrenia and exclude other psychiatric disorders. Positive and Negative Syndrome Scale (PANSS) for Schizophrenia: for clinical assessment of severity of symptoms of the patients diagnosed with schizophrenia, the Arabic version of Female Sexual Function Index (FSFI): to assess dimensions of sexual function and sexual dysfunction in Egyptian women. (If the patient is illiterate, she was assisted by a doctor or a nurse) .Patients with schizophrenia were compared to healthy female controls regarding all demographic and clinical variables and sexual dysfunctions. Furthermore, medicated patients with schizophrenia were compared to the non-medicated group regarding all clinical and demographic variables and sexual dysfunctions. Arabic version of World health organization quality of life questionnaire: to assess the impact on different aspects on quality of life. **Controls were assessed using:** Arabic version of Structured Clinical Interview for DSM-IV-TR Axis I Disorders (SCID-I): for clinical assessment and diagnosis of females with schizophrenia and exclude other psychiatric disorders. The Arabic version of Female Sexual Function Index (FSFI): to assess dimensions of sexual function and sexual dysfunction in Egyptian women. Patients with schizophrenia were compared to healthy female controls regarding all demographic and clinical variables and sexual dysfunctions. Furthermore, medicated patients with schizophrenia were compared to the non-medicated group regarding all clinical and demographic variables and sexual dysfunctions. Arabic version World health organization quality of life questionnaire: to assess the affection on different aspects on quality of life.

RESULTS

Cases and control groups were assessed using Female Sexual Function Index (FSFI) to determine dimensions of sexual function. 100% (n=30) of untreated patients had sexual dysfunction, 86.7% (n=26) of patients treated with typical antipsychotics had sexual dysfunction and 90% (n=27) of patients treated with Atypical antipsychotics had sexual dysfunction, while 90% (n=27) of females of control group had sexual dysfunctions. In comparison between two groups there was no significant statistical difference regarding the occurrence of sexual dysfunctions as evident in table (1).

Table (1): FSFI score between type of medications groups.

		Type of medications												Kruskal-Wallis H Test of sig.	
		Untreated			Typical antipsychotics			Atypical antipsychotics			Controls				
		Mean/N	SD/%	Median(IQR)	Mean/N	SD/%	Median(IQR)	Mean/N	SD/%	Median(IQR)	Mean/N	SD/%	Median(IQR)	P-value	Sig.
FSFI total interpretation	Normal	0	0.0%		4	13.3%		3	10.0%		3	10.0%		0.219(F)	NS
	Has sexual dysfunction	30	100.0%		26	86.7%		27	90.0%		27	90.0%			

(F) Fisher's Exact test of significance.

Socio-demographic Data: Socio-demographic data collected from cases and control groups showed no significant difference between them except for employment which revealed high statistical difference between the two groups as shown in table (2).

Table (2): Demographic data between types of medications groups.

		Type of medications								Test of sig.	
		Untreated		Typical antipsychotics		Atypical antipsychotics		Controls			
		Mean /N	SD / %	Mean /N	SD / %	Mean /N	SD / %	Mean /N	SD / %	P-value	Sig.
Age by year		35.03	7.36	35.57	6.62	35.67	6.78	35.90	6.56	0.967(A)	NS
Education	Illiterate	2	6.7%	1	3.3%	2	6.7%	0	0.0%	0.178(F)	NS
	Read and write	5	16.7%	1	3.3%	4	13.3%	0	0.0%		
	Primary school	2	6.7%	4	13.3%	0	0.0%	0	0.0%		
	Secondary school	1	3.3%	1	3.3%	1	3.3%	0	0.0%		
	High diploma	10	33.3%	10	33.3%	11	36.7%	10	33.3%		
	High school	4	13.3%	3	10.0%	4	13.3%	6	20.0%		
	College graduate	6	20.0%	10	33.3%	8	26.7%	14	46.7%		
Work	Unemployed	21	70.0%	22	73.3%	23	76.7%	5	16.7%	<0.001(C)	HS
	Employed	9	30.0%	8	26.7%	7	23.3%	25	83.3%		
Duration of marriage by year		11.28	6.15	11.17	5.17	13.13	6.58	10.57	6.20	0.391(A)	NS
Number of offspring	0	4	13.3%	6	20.0%	5	16.7%	3	10.0%	0.97(F)	NS
	1	5	16.7%	3	10.0%	6	20.0%	8	26.7%		
	2	11	36.7%	13	43.3%	9	30.0%	13	43.3%		
	3	7	23.3%	4	13.3%	5	16.7%	3	10.0%		
	4	2	6.7%	2	6.7%	2	6.7%	2	6.7%		
	5	1	3.3%	1	3.3%	2	6.7%	1	3.3%		
	6	0	0.0%	1	3.3%	1	3.3%	0	0.0%		
Number of offspring		2	1.25	2	1.49	2.1	1.58	1.87	1.17	0.917(K)	NS

(A) One way ANOVA test of significance; (F) Fisher's exact test of significance; (C) Chi-Square test of significance; (K) Kruskal-Wallis H test of significance.

DISCUSSION

Disorders of sexual dysfunctions are common problems that affect the woman's quality of life and lead to marital problems, stress, depression, anxiety, and infertility. They include disorders of sexual desire, arousal, orgasm, and sexual pain **(10).** Problems of Female sexuality are underestimated problems with an overall prevalence between 20 and 50%. Several studies have demonstrated that 38–63% of women worldwide had sexual problems. 14% of women aged 45–64 reported at least one sexual problem associated with significant distress, yet only 21% of women with persistent sexual problems discuss it with their healthcare provider **(11).** Sexuality of schizophrenics is a neglected dimension, as the importance accorded to the pharmacological treatments of psychotic symptoms, the negative biases associated with sex and the discomfort of professionals when exploring the sexual life of their clients can, this may explain the lack of research in this area (8). To our knowledge, none or few of the available Egyptian studies had assessed the relation of sexual dysfunctions to schizophrenia and its treatment. This study is sought to extend our knowledge about the association of schizophrenia and its treatment with sexuality problems. It was done at Institute of Psychiatry, Faculty of Medicine, Ain Shams University to determine the rate of occurrence of sexual dysfunctions in married females with schizophrenia in comparison to control group. It included 90 females diagnosed as schizophrenia (divided into 3 groups of 30s: group 1 untreated patients, group 2 patients treated with typical anti psychotics 3- patients treated with Atypical antipsychotics) and 30 females as a control group. This study showed that 70% of untreated patients were unemployed, 73.3% of patients treated with typical antipsychotics and 76.7% of the patient treated with atypical antipsychotics were unemployed, yet only 16.7% of the control group were unemployed this may reflect the great effect of schizophrenia and its symptoms on the general functionality of the affected patients. This was consistent with results from numerous studies showed that schizophrenic patients had less employment rates than controls (16). This study showed that 100% (n=30) of untreated patients had sexual dysfunction, 86.7% (n=26) of patients treated with typical antipsychotics had sexual dysfunction and 90% (n=27) of patients treated with atypical antipsychotics had sexual dysfunction, while 90% (n=27) of females of control group had sexual dysfunctions. In comparison between two groups there was no significant statistical difference regarding the occurrence of sexual dysfunctions, However, this finding sheds a warning signal on the high prevalence of sexual dysfunction among females in general and schizophrenic female patients in particular. This finding was contestant with several previous researches demonstrating relationship between sexual dysfunctions and schizophrenia was with high levels of sexual problems in schizophrenia and high prevalence of desire disorder at the untreated patients **(12, 13, and 14).** Other studies found different results as **(14, 15, and 17)** found that patients with schizophrenia have higher affection in all phases of the sexual response cycle. Also numerous studies did not notice any intersexual discrepancy regarding the type and prevalence of sexual dysfunctions **(18, 19, and 20).** This discrepancy in results may be due to different sample size, different tools of assessment of sexual function and different study designs.

CONCLUSION

The objective of this study was to assess sexual dysfunctions in Egyptian patients with schizophrenia using the FSFI sexual scale. The study revealed high sexual dysfunction among both patients and controls, yet the percentage of sexual dysfunction was higher among the untreated group of patients which suggests that sexual dysfunction is intrinsic part of the illness development of the illness.

CONFLICTS OF INTEREST

There are no conflicts of interest.

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