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Assessing the sexual functioning of chronic inpatients at a psychosocial rehabilitation unit

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Introduction. Most chronic inpatients at psychosocial rehabilitation units in our environment suffer some kind of psychosis. The sexual function in these patients has been studied little and the rate of sexual dysfunction studied in similar populations is very high.

Objectives. To assess the sexual function of the inpatients at a psychosocial rehabilitation unit and to measure other clinical and demographic variables of these patients.

Methods. A sample of 46 inpatients was obtained in the psychosocial rehabilitation unit. Sexual function was assessed using the Changes in the Sexual Function Questionnaire (CSFQ).

Results. A high number of patients scored below the minimal normal score in the CSFQ (males: 87.9 %; women: 87.5 %). This implies a high prevalence of sexual dysfunction.

Conclusions. The high percentage of patient with sexual dysfunction can be in connection with the severity of the disease that these patients suffer and with the side effects of the medication.

Key words:
Sexual dysfunction. Chronic psychiatric patient. Schizophrenia.

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Valoración de la función sexual en pacientes psiquiátricos crónicos ingresados en una unidad de rehabilitación psicosocial

Introducción. La mayoría de pacientes crónicos ingresados en unidades de rehabilitación psicosocial en nuestro entorno padecen algún tipo de psicosis. La función sexual en estos pacientes está poco estudiada y la tasa de disfunción sexual estudiada en poblaciones similares es muy elevada.

Objetivos. Valorar la función sexual de los pacientes internados en una unidad de rehabilitación psicosocial y medir otras variables clínicas y demográficas de estos pacientes.

Métodos Se obtiene una muestra de 46 pacientes ingresados en la unidad de rehabilitación. La función sexual se valora utilizando el Cuestionario para Cambios en la Función Sexual (CSFQ).

Resultados. Un elevado número de pacientes puntúa en el CSFQ por debajo de los puntos de corte propuestos como normalidad (87,9 % de los varones y 87,5 % de las mujeres), lo que implica una alta prevalencia de disfunción sexual.

Conclusiones. El alto porcentaje de pacientes con disfunción sexual puede estar en relación con la gravedad de la patología que padecen estos pacientes y con los efectos secundarios de la medicación.

Palabras clave:
Disfunción sexual. Paciente psiquiátrico crónico. Esquizofrenia.

INTRODUCTION

Sexual function deterioration among chronic patients is a difficult subject to approach due to the different factors that may be involved. These may be psychodrug treatment, the disease course[1] and, in some cases, institutionalization of the patient.

Most of the studies conducted with serious mental patients do not give sufficient attention to sexual subjects. it is known that sexual behavior in schizophrenic patients differs from that of the general population, autoerotic activity predominating, and they have fewer sexual partners[2]. In a sample of psychotic patients, different characteristics in sexual behavior were found in up to 6.8 % of them (frotteurism, voyeurism, masochism, and others), and 13.7 % did not show concern for the risk of sexual transmission diseases[3].

Chronic patients with diseases as serious as psychoses occupy the middle and long stay units in our setting in the greatest percentage.

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Some studies have tried to discover the sexual disorder rates in the psychiatric population. However, a problem arises when trying to compare the data due to the variety of instruments chosen to determine the existence of sexual dysfunction and variations in the populations and samples studied.

Psychopharmacological treatment is an essential factor to consider when assessing chronic patient sexuality. The effects of the psychodrugs on sexual function are continuously being studied, above all of antipsychotics and antidepressants[4-6]. Presence of sexual dysfunction in patients treated with serotonine selective release inhibitor (SSRI) exceeds 50 % with any of them[7] and the antidepressants having the lowest prevalence of sexual dysfunction were mirtazapine (24.4 %), nefazodone (8 %), amineptine (6.9 %) and moclobemide (3.9 %)[8].

Antipsychotics also cause an elevated incidence of sexual side effects. The results in a study conducted with 25 patients showed an extremely high prevalence of sexual type side effects, although these results should be considered with caution due to the small sample size: 71 % of those that received risperidone, 67 % with haloperidol and fluphenacine, 40 % of those treated with clozapine[9]. Comparison of sexual side effects caused by risperidone and olanzapine benefit the latter drug in both the short six week period (50 % vs 11 %, respectively)[10], and at the end of one year of treatment (21.1 % vs 7.3 %, respectively)[11].

On the other hand, assessment of sexual function may be presently conducted with different types of questionnaires, some self-applied, and others heteroapplied, some of which are designed specifically to measure the side effects of the drugs. The Spanish version of the Changes in Sexual Functioning Questionnaire (CSFQ) is considered as a valid instrument to measure sexual function in the clinical practice[12], with the characteristic that it assesses different aspects of sexual activity with several subscales.

OBJECTIVES

Assess sexual function of the patients who are admitted to a psychosocial rehabilitation unit and compare sexual dysfunction prevalence between male and female patients. In addition, others parameters such as main psychiatric diagnosis, use of types of psychodrugs, age, confinement time, are investigated to describe these patients' characteristics.

METHODS

The sample is obtained from all the patients admitted to the psychosocial rehabilitation unit in Santiago de Compostela (Galicia). This is the only existing unit of these characteristics in a community of 2,700,000 inhabitants. It had a 50 bed capacity and occupation when the data was collected was 100 %, which is general the usual occupancy rate since there are many patients on the admission waiting list. There was no discharge or admission done during the data collection period. This psychosocial rehabilitation unit is a reference one for all the community. Thus, whatever the origin of the patient, he/she could be admitted if the admission criteria are fulfilled (chronic patient, stabilized, with established diagnosis, with specific objectives of rehabilitation). The Unit's personnel resources are two psychiatrists, one psychologist, one social worker, one occupational therapist and nursing and auxiliary staff. Generally, the evolution of the patients' disease is long, they often have had several admissions in the short stay hospitalization unit and they do not have the conditions to live in the community when stabilized and discharged. The objective of confinement in the rehabilitation unit usually consists in achieving adaptation of their habits and behavior and developing adequate skills to be able to live in the community, generally with their families. If this objective is unviable, the patient is transferred to chronic patient units.

A cross-sectional observational study has been designed to assess the sexual function of the patients. A total of 50 patients were admitted during the data collection period, that lasted during the month of October 2003. All the patients were over 18 years of age. Age is a known risk factor to suffer sexual dysfunction and the recent data continue to support this premise, regardless of whether this is studied in men[13-15], women[16] or in combined samples in the general population[17]. Thus, to avoid age as a confounding factor in the prevalence of sexual dysfunction, patients over 65 years are excluded. The following data of each patient is collected: gender, age, civil status, confinement time, main psychiatric diagnosis, use of antipsychotics, antidepressants, benzodiazepines and mood stabilizers. The diagnosis is classified according to ICD-10 clinical criteria[18].

For the sexual function evaluation, the CSFQ Spanish translated and validated version was used. The questionnaire assesses different dimensions (desire/frequency, desire/interest, pleasure, arousal/excitation, and orgasm) and obtains a score on the overall sexual function. The greater the score, the greater the sexual functionality. Cut-off points are established below which the sexual function would be abnormal. These cut-offs values are different in men and women. The CSFQ is made up of a baseline assessment and follow-up assessment. Due to the study design —cross-sectional— only the baseline part of the test was applied.

The questionnaire was heteroapplied, after an introduction interview in which the study objective was explained and the previously indicated data collected. Those patients who refused to participate were asked again after one week by the same person who had initially interviewed them. In they refused to participate again, a third and final attempt was made at the end of another week.

RESULTS

Of the 50 patients who were hospitalization when conducting the study, 46 of them fulfilled the screening crite-

ria, since the other 4 were over 65 years and were excluded. Five (all men) of the 46 refused to participate. All the participants accepted during the first interview and none of the 5 who refused to participate accepted at the end of three enrolment attempts. Finally, 41 patients, 33 men and 8 women, participated. The characteristics of the participants and patients who refused to answer the questionnaire are similar (table 1).

The variables collected during the interview prior to the application of the CSFQ are presented in table 2. There are no significant differences regarding age (Mann-Whitney U test 99; p = 0.27) and confinement time (Mann-Whitney U test 117.50; p = 0.63), this non-parametric test being applied since neither of the two variables follows a normal distribution. In regard to this information, confinement time has a wide distribution, with a minimum of one month, maximum of 113 months and median of 29 months in the case of men. In the woman sample, a widely distributed admission time was also observed, with a minimum of one month, maximum of 88 months and median of 21 months.

In both groups, the most frequent diagnoses are psychosis, presence of schizophrenia type psychosis standing out.

Treatments received in both genders are similar and it stands out that antipsychotics were prescribed to 100 % of the patients, in both men and women. There are no significant differences (Bilateral Fisher's exact test) in the frequency of patients who received the different types of psychodrugs: antipsychotics (constant), antidepressants (p = 0.33), benzodiazepines (p = 0.19) and mood stabilizers (p = 0.24).

All the patients who agreed to respond to the questionnaire CFSQ did so in a single interview. No question was rejected by the patients, so that they all completed all the questionnaire. Doubts or difficulties to understand were clarified by the interviewer. The results obtained indicate that a very high number of patients scored below the cut-offs accepted as «normality», which indicates an elevated presence of sexual dysfunction (table 3). It is not appropriate to compare the means of scores obtained due to the difference between the cut-off value for men and women. However, it is possible to compare the frequency of sexual dysfunction in both the corresponding subscales and in overall sexual function between men and women. The results in the subscale score have a very disperse distribution. Median value for the male sample were desire/frequency, 5; desire/interest, 10; pleasure, 1; excitation, 9; orgasm, 7; overall sexual function, 36. In the case of women, median values obtained were desire/frequency, 4; desire/interest, 4.5; pleasure, 1; excitation, 6.5; orgasm, 4; overall sexual function, 27.5.

Table 1 Characteristics of the patients according to participation

	Accept (n = 41)	Refuse (n = 5)
Gender		
Man	33 (80.5 %)	5 (100 %)
Woman	8 (19.5 %)	0 (0 %)
Civil status		
Single	33 (80.5 %)	4 (80.0 %)
Married	1 (2.4 %)	0 (0 %)
Separated	6 (14.6 %)	1 (20.0)
Divorced	1 (2.4 %)	0 (0 %)
Treatment received		
Neuroleptics	41 (100 %)	5 (100 %)
Antidepressants	6 (14.6 %)	1 (20.0 %)
Benzodiazepines	34 (82.9 %)	5 (100 %)
Mood stabilizers	5 (12.2)	0 (0 %)
ICD 10 diagnostic group		
Addictions	4 (10.0 %)	0 (0 %)
Psychosis	32 (80.0 %)	5 (100 %)
Affective disorders	2 (5.0 %)	0 (0 %)
Personality disorders	1 (2.5 %)	0 (0 %)
Mental retardation	1 (2.5 %)	0 (0 %)

Table 2 Characteristics of the patients participating according to gender

	Men (n = 33)	Women (n = 8)	
Age mean (SD)	40.4 (10.59)	44.8 (11.53)	ns*
Confinement time months mean (SD)	36.33 (32.73)	31.50 (32.82)	ns*
Treatments received			
Antipsychotics	33 (100 %)	8 (100 %)	
Antidepressants	4 (12.1 %)	2 (25.0 %)	ns**
Benzodiazepines	26 (78.8 %)	8 (100 %)	ns**
Mood stabilizers	3 (9.1 %)	2 (25 %)	ns**
Civil status			
Single	29 (87.9 %)	4 (50.0 %)	
Married	1 (3.0 %)	0 (0.0 %)	
Separated	2 (6.1 %)	4 (50.0 %)	
Divorced	1 (3.0 %)	0 (0.0 %)	
ICD-10 diagnosis			
Addictive disorders	3 (9.4 %)	1 (12.5 %)	
Psychotic disorders	26 (81.3 %)	6 (75.0 %)	
Affective disorders	1 (3.1 %)	1 (12.5 %)	
Personality disorders	1 (3.1 %)	0 (0.0 %)	
Mental retardation	1 (3.1 %)	0 (0.0 %)	

* Mann-Whitney U test. ** Fisher exacta exact test.

Table 3 Results of scores on CSFQ classified by genders

	Men (n = 33)			Woman (n = 8)			Exacta Fisher
	Mean (SD)	Cut-off	Dysfunction frequency	Mean (SD)	Cut-off	Dysfunction frequency	Valor p
Desire/frequency	5.5 (1.5)	8	28 (84.8 %)	4.63 (2.3)	6	6 (75.0 %)	0.606
Desire/interest	9.0 (2.8)	11	20 (60.6 %)	5.0 (2.0)	9	8 (100 %)	0.040
Pleasure	1.2 (0.6)	4	32 (97.0 %)	2.2 (1.8)	4	6 (75.0 %)	0.092
Excitation	8.3 (4.7)	13	25 (75.8 %)	6.6 (4.0)	12	7 (87.5 %)	0.659
Orgasm	7.3 (4.3)	13	29 (87.9 %)	6.1 (4.3)	11	7 (87.5 %)	> 0.999
Overall sexual function	33.6 (10.0)	47	29 (87.9 %)	27.8 (12.6)	41	7 (87.5 %)	> 0.999

CSFQ: Changes in Sexual Functioning Questionnaire; SD: standard deviation.

The number of patients who have sexual dysfunction according to the CSFQ is very high in both men and women. In all more than 87 % of the patients have overall sexual dysfunction. If frequency of dysfunction in the different subscales is compared, there are only significant differences in the desire/interest section, where 60.6 % of the men have a score below the cut-off versus 100 % of the women who have a dysfunction in this aspect. More men than women, in proportion, have alterations in desire/frequency, in pleasure, and more women have altered scores in the excitation section, although these differences are not statistically significant. In the orgasm scale, a similar percentage of men and women obtain scores below the cut-off (table 3).

DISCUSSION

The results show a high prevalence of sexual dysfunction between the study's chronic psychiatric patients.

Faced with these findings, the following reflections are required. In the first place, it could be questioned if similar findings have been reported by other studies in similar patient samples or what sexual dysfunction data appear in another type of patients. Another question that should be posed is what factors may be related with this result and three possible causes are suggested: *a)* factors related with the sample; *b)* factors related with the instrument used for sexual function assessment and *c)* factors related with psychopharmacological treatment. Finally, it is necessary to assess the possible solutions to the sexual dysfunction problem in chronic psychiatric patients who receive psychopharmacological treatment.

The prevalence of sexual dysfunction in psychiatric patients in previous studies widely varies according to the sample and methods used. In patients diagnosed of some type of psychosis according to DSM-IV criteria, 60 % of the individuals have some type of sexual dysfunction[19]. The prevalence found by the Nithsdale study[20] is greater. In this study, not only out-patient schizophrenics but also schizophrenic patients hospitalized in the day hospital are included, there being 82 % men and 96 % women with sexual dysfunction. The Teusch study, attempting to compare the sexual dysfunction pattern between different types of patients, observes that 100 % of those who are under treatment with methadone for opiate addicts have sexual dysfunction. Among schizophrenia patients, 86.7 % of the men and 93.3 % of the women suffer sexual dysfunction. Patients with neurosis have a lower percentage, with 58.3 % of the men and 76.9 % of the women suffering sexual dysfunction[21]. In patients with affective disorders, 72 % of the bipolar patients and 77 % of the unipolar ones have sexual dysfunction according to the data that are found in the complete review of Baldwin [4]. In this same study, the authors mention the variation in the proportion of patients with sexual dysfunction, depending on the method used to identify it: only 14 % of the patients spontaneously report this problem and the amount reaches 58 % when the physician questions them. In any event, most of the studies that try to discover the prevalence of sexual dysfunction, independently of the diagnosis and treatment received by the patients, obtain values greater than three fourths of patients with dysfunction. It is precisely these variations that may be due, among other factors, to the heterogeneity of the samples.

Dependent factors of the sample

The institutionalized patients have clear difficulty to maintain sexual relationships. In fact, chronic schizophrenic patients more frequently have social and family problems as well as problems with the community due to the greater risk of pregnancy as well as less skill to achieve social interrelationships, even obtaining a partner[22]. Up to 35 % of the patients of a sample including chronic psychotics did not use any contraceptive method[3].

Another problem present in the institutionalized patients is the possibility of maintaining sexual relationship among them. In general, relationships between patients are not permitted and entail a management problem for the health care staff. The question is how to evaluate the capacity of a patient (generally, chronic schizophrenic with deterioration) to agree to a sexual relationship. In a simple study conducted in different North American states, the results were clear. Only some centers maintained specific and regulated policies on the management of sexual relationships in the confined patients and more than 50 % of these had a prohibition or punitive attitude towards sexual relationships between the admitted patients[23].

Test dependent factors

The type of instrument used to assess sexual function may determine variations in the results. An adequate test should comply with the characteristics of reliability, validity, capacity to differentiate between drug and placebo effects, discriminate between dose-dependent responses and discriminate between effects of different drugs[24]. The CSFQ is an instrument that fulfills these requirements[25,26] It has been shown to be sensitive to the changes when the different dimensions are considered[27] and has been validated in Spanish[12]. The fact that it is a test that can be heteroapplied allows for greater understanding by the patient[22]. In the Labbate study, the CSFQ provides a higher percentage of individuals with sexual dysfunction (90 %), comparing the results of the sexual function questionnaire of the General Hospital of Massachusetts (77 %), according to the authors due to the use of strict criteria, which makes it a highly sensitive test[25].

Psychopharmacological treatment dependent factors

The side effect of the drugs on the sexual function may deteriorate adherence to treatment. Although the clinicians tend to worry more about another type of side effects such as the extrapyramidal ones, the patient may be more concerned about the development of sexual side effects[5]. However, speaking with the patients about this subject and attempting to apply strategies to treat the problem may decrease non-compliance[28].

The drugs used most in the patients in the study's sample were antipsychotics and antidepressants, whose sexual type side effects are well-known. No significant differences were found in a study that compared haloperidol with clozapine in regards to the presence of sexual type side effects[28]. In a study conducted in our setting, only quetiapine showed a lower incidence of sexual effects than other new antipsychotics, however these results presently refer to the short term[6]. These differences may be related with the increase of prolactin caused, above all, by the classical antipsychotics, risperidone and amisulpride, which would be associated to greater suffering of sexual dysfunction[29,30]. In this sense, changing to a drug accompanied by a lower plasma concentration of the hormone prolactin, for example from risperidone to olanzapine, resulted in an improvement of the sexual function[29,31].

Sexual dysfunction prevalence studies in patients with antidepressant treatments show very diverse and contradictory results according to the Baldwin review[32] Influence of antidepressants in sexual dysfunction is variable based on the drug used and may reach 70 % of the patients in the case of paroxetin[8]. Change in treatment may modify the percentage of patients suffering sexual dysfunction. In a group of patients treated with different antidepressants, all having some type of sexual dysfunction, normalization of the sexual function was observed in 45 % of them six months after changing the treatment to amineptine[33].

Management of sexual dysfunction

The strategies proposed to improve sexual function of the patients who follow a psychopharmacological treatment are diverse: wait for the development of tolerance, dose reduction, delay in taking the dose or suppression of any of the doses (administer the dose after intercourse), drug change, behavioral strategies, individual or partner psychotherapy, or the administration of treatments to alleviate the side effects[4,34,35]. Treatments tested in this sense are varied: cyproheptadine, granisetron, ginkgo biloba, yohimbina, amantadina, buspirone, olanzapine, dexamphetamine, neostigmine, prostagladin E, and sildenafil, although only the latter has demonstrated efficacy in patients who follow treatment with antidepressants, improving their erectile dysfunction, ejaculation, orgasm and satisfaction [36]. Other on-going studies are evaluating the efficacy of this drug in the treatment of sexual dysfunction in chronic schizophrenic patients[20].

In another sense, development of rehabilitation programs may mean an advance for the solution of this problem in chronic patients. The program proposed by Lukoff, developed in eight sessions, stands out. It tries to achieve specific objectives: improve knowledge of sexuality, identify and clarify attitudes towards sexuality and acquire decision making skills[37].

CONCLUSIONS

The high prevalence of sexual dysfunction observed in the results may be related with the use of psychodrugs since all of them received some antipsychotic. These results should be considered in a general and non-comparative way since this study was not designed to measure differences in sexual dysfunction among the different antipsychotics. Furthermore, the seriousness and chronicity of the di-

sease suffered by most of the patients, with a high prevalence of psychotic disorders, should be kept in mind. Independently of the seriousness of the patient, of his disease and treatment, the clinician should actively assess the presence of sexual dysfunction, since this is not spontaneously reported by an elevated number of patients. Sexuality is a subject that concerns the patients and more studies may be necessary to discover the prevalence of sexual dysfunction in our psychiatric patient samples.

Although the solutions to this problem are still not very effective, the most adequate measures should be applied to each case to alleviate the dysfunction. Development of specific programs in the rehabilitation of psychiatric patients, previously and strictly comparing their efficacy, is convenient.

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