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Turkish Version of the Psychotropic Related Sexual Dysfunction Questionnaire (PRSEXDQ-T): Validity and Reliability in Patients Using Selective Serotonin Reuptake Inhibitor

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ABSTRACT

Objective: Sexual dysfunctions (SD) are very common in patients with psychiatric disorders and may be due to the side effects of the disease or medications used. Current scales cannot distinguish whether SDs are due to psychiatric illness or medications use. The Psychotropic Associated Sexual Dysfunction Questionnaire (PRSexDQ) is a customized scale for screening SD due to drug use. Our aim is to conduct a validity and reliability study of PRSexDQ in patients using selective serotonin reuptake inhibitors (SSRIs).

Method: One hundred patients who applied to psychiatry outpatient clinic and received SSRI treatment for at least 1 month were included in the study. These patients were evaluated by a psychiatrist, and completed the PRSexDQ-T, Arizona Sexual Experience Scale (ASEX), Golombok Rust Inventory Sexual Satisfaction (GRISS).

Result: The Cronbach's Alpha coefficient was calculated as 0.906 for the analysis performed to evaluate the internal consistency of the PRSexDQ-T. In the item-total score analysis, the correlation of all items with the total score was found to be quite high (above 0.7). Correlation coefficients were found between 0.939 and 0.985, which was used to determine the test-retest correlation for each item, and all values were statistically significant ($p<0.01$). In the Pearson correlation analysis performed for validity analysis, a large positive correlation was found between PRSexDQ-T and ASEX and GRISS male-female total and subscale scores.

Conclusion: The Turkish version of PRSexDQ is a valid and reliable measurement tool in the sample of patients using SSRIs to evaluate the level of sexual dysfunction.

Keywords: Sexual dysfunctions, psychotropic drugs, serotonin reuptake inhibitors, validity, reliability

INTRODUCTION

Sexual dysfunction (SD) refers to circumstances which cause distinct issues for the person and/or difficulties in intercourse resulting from the disruption of psychophysiological processes comprising the sexual response cycle (Doğan 2011). The sexual response cycle is made up of four phases; namely arousal, plateau, orgasm and resolution. Disruptions in said phases are defined under different sexual dysfunctions (İncesu 2004). According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) sexual dysfunctions include female sexual arousal/interest disorder, male hypoactive sexual desire disorder, erectile disorder, female orgasmic disorder, delayed ejaculation, premature ejaculation, genito-pelvic pain/penetration disorder, substance/medication induced SD, other specified SD and unspecified SD (American Psychiatric Association 2013).

The etiology of sexual dysfunctions involve both psychological and organic causes. Sexual dysfunctions affiliated with a mental disorder or induced as a result of use of psychotropic medication are observed quite frequently (Burhan and Kuru, 2022, Doğan 2011, de Boer et al. 2015, Martínez-Giner et al. 2022). With an increased frequency of use of selective serotonin reuptake inhibitors for the treatment of depression and anxiety disorders, SSRI induced SD became

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more frequently observed and identified (Steffens et al. 1997). Studies conducted have revealed a high frequency of SD occurrence in patients using antidepressants for various diagnoses. It was found that the rate of SD occurrence was 40% in average for females and 30% for average in males (Tuğut 2016). Controlled trials indicate that with SSRI use, SD occurs at rates ranging between 40-70% (Balon 1999, Bijlsma et al. 2014, Montejo et al. 2001). SSRI use can give way to disruptions in all phases of the sexual response cycle (La Torre et al. 2013). Consequently, it is plain to see that SSRI induced sexual dysfunction is a frequently observed clinical issue which has significant impacts at the practical level.

One reason why SD frequency was identified at different rates (40-70%) in studies conducted is that patients are not directly asked whether they experience disruption in their sexual functions. In clinical practice, SD is an issue which is highly overlooked and difficult to identify. Primarily in Asian countries, sexuality is deemed an embarrassing topic of discussion by both physicians and patients alike due to prejudices and prudence related thereto, stemming from socio-cultural factors (Doğan 2011, Meston et al. 2010). Since patients are ashamed to talk about sexuality, they do not mention SD outright during medical examinations; and physicians avoid asking questions about SD. Patients may not be aware that issues related to sexuality fall within the area of study of psychiatry. Sexuality for the most part is considered to fall within the scope of disciplines such as urology and gynecology. Thus, an increased responsibility falls on the shoulders of psychiatrists to ask questions about sexuality (de Boer et al. 2015). Therefore valid, reliable and user friendly materials for the screening of patients using psychotropic medication for sexual dysfunctions are required. More information on SD is gathered during structured interviews for the assessment of SD. Whereas a lower SD frequency is identified in studies where the patient is expected to self-report their complaints pertaining to their sexual functions, in structured trials or studies where a scale is utilized, it was found that a higher SD frequency is identified (Serretti et al. 2011a, Serretti et al. 2011b).

In order to assess symptoms of SD, scales such as the Arizona Sexual Experiences Scale (ASEX) (Soykan, 20014), the Golombok-Rust Inventory of Sexual Satisfaction (GRISS) (Tuğrul et al. 1993), the Female Sexual Function Index (Öksüz et al. 2005), and the Florida Sexual History Questionnaire (FSHQ) were developed. Most of these scales are utilized in an endeavor to screen for changes in parameters of a person's sexuality. Presence of sexual dysfunctions in patients with mental disorders may be associated with impairment of life quality, worsening clinical symptoms and disruptions in adherence to treatment (Montejo et al. 2019). Sexual dysfunctions may also occur as a consequence of medication use for the treatment of mental disorders such as anxiety disorders and major depressive disorder (Sadock 2016). With existing scales, it is difficult to differentiate between sexual dysfunctions stemming from disorders and from side effects of medication. Scales that screen solely for sexual dysfunctions induced by medication are yet to be prepared. Even though the mentioned measuring tools fit the purposes they were developed for, due to a clinical need to assess the frequency of occurrence of sexual dysfunctions and changes in sexual functions, the Psychotropic-Related Sexual Dysfunction Questionnaire (PRSexDQ) was developed as a further screening tool (Montejo et al. 2000). The Psychotropic-Related Sexual Dysfunction Questionnaire (PRSexDQ) is a scale specialized to screen for sexual dysfunctions induced by medication use. The purpose of the present study is to test the validity and reliability of the Turkish version of PRSexDQ for patients using SSRIs. The main hypothesis of this study is that PRSexDQ is a valid and reliable measuring tool which is able to identify the level of SSRI-induced sexual dysfunction and that within the scope of validity of criteria, the score given by PRSexDQ are associated with measurements taken with the Arizona Sexual Experiences Scale and scores of the Golombok-Rust Inventory of Sexual Satisfaction.

METHOD

Design and Sample

Permission was obtained from the authors of the original scale to translate PRSexDQ into the Turkish language and to conduct a validity and reliability trial. The questionnaire was translated from its source language of English into Turkish by three specialist psychiatrists, independently from one another. Later, they got together to evaluate the suitability of the translations by comparing the Turkish equivalents of English statements. The most appropriate translation was decided upon as a result of such evaluation and in line with the comments of the evaluators (Annex 1). The agreed translation was translated back into English by the same specialist psychiatrists. After revisions, the questionnaire was applied to patients and a pre-assessment for understandability was thus carried out. An application was lodged with the Ethics Committee of Ankara Dışkapı Yıldırım Beyazıt Training and Research Hospital for the study and the approval of the Ethics Committee was obtained (19.04.2021/109-44).

100 patients who applied to Ankara Dışkapı Yıldırım Beyazıt Training and Research Hospital Psychiatry Polyclinic between May 2021 and November 2021, diagnosed with major depressive disorder and had been receiving SSRI treatment for at least 1 month were included in the study in a successive manner according to their order of application to the polyclinic. Psychiatrists who received training to conduct clinical interviews with study participants were

evaluated in line with the inclusion and exclusion criteria. Participants were provided with detailed information and their written consent was obtained. Participants filled in the Socio-Demographic Data Questionnaire, Sexual History Questionnaire, Arizona Sexual Experiences Scale and Golombok-Rust Inventory of Sexual Satisfaction. The Psychotropic-Related Sexual Dysfunction Questionnaire was applied by a single psychiatrist, considering that scoring may differ from one clinician to the other. Patients who participated in the study were called back after 30 days and the PRSexDQ was once again applied by the same psychiatrist for re-testing purposes.

Criteria for inclusion in the study were defined as being between 18-65 years of age, having regularly used SSRI for at least one month prior, being literate, having provided a written consent after briefing in order to participate in the study, and being willing to participate in scales to be applied and evaluation and clinical interviews to be conducted as part of the study. Mental issues which would hinder the interviews (dementia, active psychotic disorders, bipolar affective disorder episode, momentary loss of capacities etc.) and physical disabilities (sight and hearing issues which would prevent interviews or filling in the questionnaire forms etc.), having a physical disorder (health issue) which may cause SD, using anti-psychotics or mood stabilizers that may give way to SD, use of medication/substances which are known to cause SD (beta blockers, thiazide diuretics, hypolipidemic agents, cocaine, heroin etc.), having a mental disorder or severe relationship-related issues which may give way to SD were determined to be exclusion criteria.

Data Collection Tools

Socio-demographic Data Questionnaire: A detailed interview form prepared by our clinic, which is utilized to evaluate the age, gender, marital status, profession and educational background of patients.

Sexual History Questionnaire: This 28-item form contains questions pertaining to sexual relations, including intercourse, sexual drive, foreplay, frequency, duration, arousal and fulfillment.

Arizona Sexual Experiences Scale (ASEX): A simple scale developed by McGahuey et al. to assess basic sexual functions (drive, arousal, penile erection/vaginal lubrication, orgasm and satisfaction) (McGahuey et al. 2000). The scale consists of five questions. Possible total score varies between 5-30. In this scale, a higher total score corresponds to a more severe sexual dysfunction. Each question is evaluated over a 6-point Likert scale; and having a total ASEX score of 19, any of the questions being scored 5 or at least three questions being scored 4 demonstrates the presence of a sexual dysfunction. This scale was adapted into Turkish by Soykan (Soykan, 2004).

The Golombok-Rust Inventory of Sexual Satisfaction (GRISS): This inventory was developed by Rust and Golombok (Golombok et al. 1988). The inventory serves as a measuring tool to assess the quality of sexual relations and sexual dysfunctions. There are two separate questionnaire forms for females and males, with 28 questions each. The female form includes subscales on frequency, communication, satisfaction, avoidance, sensuality, vaginismus and anorgasmia; and the male form includes subscales on frequency, communication, satisfaction, sensuality, impotence and premature ejaculation. Both the total score and the scores obtained from subscales can be used in the evaluation of the inventory. High scores point to a disruption in sexual functions and quality of sexual relations. Raw scores thus obtained can then be translated into standard scores ranging between 1-9. Profiling can be performed separately for females and males or jointly for couples. Tuğrul et al. have reported that the Golombok-Rust Inventory of Sexual Satisfaction is valid and reliable for Türkiye (Tuğrul et al. 1993).

Turkish Version of the Psychotropic-Related Sexual Dysfunction Questionnaire (PRSexDQ-T): The questionnaire was put forth by Montejo et al. (Montejo et al. 2000). This is a scale specialized to screen for sexual dysfunction induced by medication use. It is administered during a face-to-face clinic interview. The questionnaire is made up of seven items. Items A (Have you observed any type of change in your sexual activity since you began taking the treatment?) and B (Has the patient spontaneously reported this alteration or was it necessary to expressly question him or her to discover the sexual dysfunction?) are utilized at the beginning of the interview (before the 5-point Likert scale questions measuring the level of sexual dysfunction) by the clinician to assess whether any changes have happened in sexual activity. For item A, the interviewer puts in the answer as either Yes or No. Likewise, for item B, the interviewer puts in whether the patient reported changes in sexual functions without being asked. Items A and B are utilized to assess whether any change in sexual activity exists and whether such change was spontaneously reported to the interviewer or not. Items A and B cannot be utilized to identify the level of sexual dysfunction. These items assist the interviewer in evaluating the clinical status of the patient during the interview. It is thus demonstrated that SSRI users can be divided as those with induced SD and those with no induced SD. The other five items assess the intensity or frequency of changes in sexual functions with a score ranging from 0 (less intensity or lower potential frequency) to 3 (more intensity or higher potential frequency). Items 1 through 5 are utilized to evaluate decrease in libido, delayed orgasm/ejaculation, inability to orgasm/ejaculate, difficulty in

obtaining and maintaining an erection for males, disruption in vaginal lubrication for females and tolerance of SD by the patient over scores ranging from 0 (less intensity or lower potential frequency) to 3 (more intensity or higher potential frequency). The final score of the questionnaire ranging between the lowest score of 0 (no sexual dysfunction) and the highest score of 15 (maximum sexual dysfunction) is obtained by adding up the scores given to items 1-5. If the final score of the questionnaire ranges between 1-5 and none of the items scored higher than 1, a "mild" sexual dysfunction is identified; likewise, with a final score ranging between 6-10 or any item scoring 2 and no item scoring 3 a "moderate" and a final score ranging between 11-15 or any item scoring 3 a "severe" sexual dysfunction is identified. In the presence of a total score of 0, sexual dysfunction is put in as "None". The original version of the questionnaire has displayed sufficient psychometric properties for patients with depression (Montejo et al. 2000). PRSexQD has also demonstrated feasibility, good internal reliability, satisfactory validity and sensitivity to changes in sexual functions for patients with schizophrenia and other psychotic disorders (Montejo et al. 2008).

Statistical Analysis

Data obtained from participants were not examined with SPSS version 20. In order to assess the reliability of PRSexDQ-T, the Cronbach's Alpha was calculated and item-total score analyses were performed. In order to ensure the fitness of data for the factor analysis of PRSexDQ-T, Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) sample suitability test were utilized. Relationships between scale scores were assessed with an analysis of the Pearson correlation. Likewise, in order to identify test-retest relationships between items, an analysis of the Pearson correlation was performed. In cases where the correlation coefficients ranged between r=0.10 and 0.29 or r= -0.10 and -0.29 a weak correlation, between r=0.30 and 0.49 or r=-0.30 and -0.49 a moderate correlation and between r=0.50 and 1.0 or r=-0.50 and -1.0 a strong correlation was deemed to be found (Pallant, 2016). In statistical analyses performed, the margin of error was accepted to be 5% (p=0.05).

RESULTS

Descriptive Statistics

58% of participants (58) were females. Median age was 35.46±9.24 and age range was 20-59. It was found that 20% of participants (20) were single and 80% (80) were married. Descriptive statistics pertaining to demographic data and clinical characteristics are presented under Table 1 (Table 1). PRSexDQ-T Item A was answered positively by 54% and Item B by 32% of the participants.

Reliability

In the analysis performed to assess the internal consistency of PRSexDQ-T, Cronbach's alpha coefficient was calculated to be 0.906. Item-total score analyses provided a rather strong correlation between all items and the total score, with a value above 0.7 (Table 2).

In order to determine the temporal reliability of the questionnaire, PRSexDQ-T was readministered as part of a test-retest method 30 days later with 41 participants randomly selected from the sample. In order to identify test-retest relationships between items, an analysis of the Pearson correlation was performed (Table 2). Correlation coefficients were found to range between 0.939 and 0.985 with all values being deemed statistically significant (p<0.01).

Structural Validity

The Kaiser-Meyer-Olkin sample suitability test performed in order to analyze the structural validity of PRSexDQ-T and to evaluate the factor construct demonstrated suitability for factor analysis with a value of 0.93.

Results of Bartlett's test of sphericity were found to be significant as well (p<0.001). Looking at the component matrix, due to the fact that all questions concentrating

Table 1. Supplementary Statistics of Demographical and Clinical Characteristics

Demographical Characteristics		
Gender (Number,%)		
Female	58	58%
Male	42	42%
Age(mean ± standard deviation)	35.46 ± 9.24	
Martial Status (Number,%)		
Single	20	20%
Married	80	80%
Clinical Characteristics		
Medication Used (Number,%)		
Sertraline	32	32%
Escitalopram	25	25%
Fluoxetine	21	21%
Citalopram	12	12%
Paroxetine	10	10%
SD*(Number,%)		
None	22	22%
Mild	15	15%
Moderate	33	33%
Severe	30	30%
Total	100	100%

According to PRSexDQ-T Scale 0: none None: 0; Mild 1-5 (No item>1); Moderate: 6-10 (OR any item=2, no item=3); Severe: 11-15 (OR any item=3)

Table 2. PRSexDQ-T Item-Total Score Statistics, Test - Retest Analysis Results Component Matrix Results

Item	Item-total Score Correlation	Cronbach's Alpha Coefficient Following the Removal of Item	Test-retest Analysis Results	Component Matrix Results
PRSexDQ-T Item 1	0.710	0.998	0.985**	0.911
PRSexDQ-T Item 2	0.901	0.979	0.978**	0.976
PRSexDQ-T Item 3	0.759	0.987	0.972**	0.952
PRSexDQ-T Item 4	0.773	0.986	0.939**	0.961
PRSexDQ-T Item 5	0.799	0.979	0.979**	0.978
PRSexDQ-T Total			0.991**	

Pearson correlation analysis, **p<0.01

Table 3. Scale Scores According to Sex

Scales	Male (N=42) Mean ± Standard Deviation	Female (N=58) Mean ± Standard Deviation
PRSexDQ-T		
Item 1	1.24±1.08	1.28±124
Item 2	1.02±1.14	1.32±1.28
Item 3	0.786±1.07	1.22±1.08
Item 4	0.905±0.932	0.966±1.01
Item 5	1.24±1.03	1.19±1.10
Total (Item 1-5)	5.19±4.29	6.00±5.02
ASEX		
Drive	2.79±1.37	3.28±1.20
Arousal	2.74±1.27	3.16±1.15
Erection/Lubrication	2.79±1.30	3.09±1.01
Ejaculation/Orgasm	2.90±1.30	3.72±1.15
Satisfaction	2.74±1.33	2.98±1.18
GRISS		
Total	33.48±13.70	44.28±17.22
Frequency	4.40±1.82	4.31±1.67
Communication	3.43±2.31	3.52±2.19
Fulfillment	5.93±3.12	6.53±3.57
Avoidance	2.71±2.18	5.02±3.67
Sensuality	2.88±2.85	5.47±3.98
Vaginismus		5.57±2.71
Anorgasmia		7.71±3.29
Impotence	4.48±2.82	
Premature Ejaculation	5.98±3.16	

ASEX = Arizona Sexual Experiences Scale, GRISS = Golombok-Rust Inventory of Sexual Satisfaction, PRSexDQ-T = Turkish version of Psychotropic-Related Sexual Dysfunction Questionnaire

around a single factor with scores above 0.9, the questionnaire was concluded to be of a single-factor structure (Table 2). Therefore, factor rotation analyses were not deemed necessary.

Inter-scale Relationships

Due to questionnaires used in the study having different subscales for females and males, the median scores for such subscales were evaluated separately for females and males as well (Table 3).

In the Pearson correlation analysis performed as part of the validity analysis, a positive and strong correlation was found between PRSexDQ-T and ASEX male-female total scores and male subscale scores ($p<0.01$). Of the female subscale scores, a strong correlation was found for drive and lubrication and a moderate correlation for the other subscales (Table 4).

In the Pearson correlation analysis performed for the validity analysis, a positive and moderate correlation was found

Table 4. Relationships between PRSexDQ-T and ASEX Total Score, Subscale Scores, GRISS Total Score and Subscales For Males and Females

Scales Male (N=42)	PRSEXDQ-T	Scales Female (N=58)	PRSEXDQ-T
ASEX		ASEX	
Total	0.763**	Total	0.618**
Drive	0.567**	Drive	0.509**
Arousal	0.636**	Arousal	0.462**
Erection	0.616**	Lubrication	0.559**
Ejaculation	0.697**	Orgasm	0.483**
Satisfaction	0.673**	Satisfaction	0.368**
GRISS		GRISS	
Total	0.456**	Total	0.435**
Frequency	0.186	Frequency	0.273*
Communication	0.194	Communication	0.080
Fulfillment	0.451**	Fulfillment	0.341**
Avoidance	0.371*	Avoidance	0.338**
Sensuality	0.331*	Sensuality	0.257
Impotence	0.371*	Vaginismus	0.174
Premature ejaculation	0.137	Anorgasmia	0.403**

ASEX = Arizona Sexual Experiences Scale, GRISS = Golombok-Rust Inventory of Sexual Satisfaction, PRSexDQ-T =Turkish version of Psychotropic-Related Sexual Dysfunction Questionnaire
Pearson correlation test, *p<0.05 **p<0.01

Table 5. Comparison of the ASEX and GRISS Scores For Persons with and Without Complaints of Sexual Side Effects İdentified with PRSexDQ-T

		Sexual Side Effects Identified with PRSexDQ-T	N	Median	p
Male	ASEX		8	10.5	0.037*
			34	14.0	
	GRISS	Absent	8	29.5	0.873
		Present	34	31.5	
Female	ASEX	Absent	14	11.5	<0.001***
		Present	44	17.0	
	GRISS	Absent	14	35.0	0.002**
		Present	44	46.5	

ASEX = Arizona Sexual Experiences Scale, GRISS = Golombok-Rust Inventory of Sexual Satisfaction, PRSexDQ-T = Turkish version of Psychotropic-Related Sexual Dysfunction Questionnaire
Mann-Whitney U test, *p<0.05 **p<0.01 ***<0.001

between PRSexDQ-T and GRISS-Male for total scores and scores of Fulfillment, Avoidance, Non-Sensuality and Impotence subscales (p<0.05). Between PRSexDQ-T and GRISS-Female, a positive and moderate correlation was found for total scores and scores of Fulfillment, Avoidance and Anorgasmia subscales and a positive and weak correlation for the score of the frequency subscale (p<0.05).

Comparison of Sexual Experience and Sexual Fulfillment Levels of Persons Experiencing and Not Experiencing Sexual Side Effects

Females and males were separately divided into two groups each, comprising of those with a total PRSexDQ-T score of "0" (no sexual side effect) and those with a total score higher than "0" (sexual side effect present). Accordingly to this division, females and males were compared independently from each other and in terms of their total scores for ASEX and GRISS through the use of the Mann-Whitney U Test. For males, whereas ASEX scores were found to differ in accordance with the presence or absence of sexual side effects, no statistically significant difference was observed between GRISS scores (p=0.037, p=0.873). For females, both ASEX and GRISS scores were identified to be different in accordance with the presence or absence of sexual side effects (p<0.001, p=0.002). Results are presented under Table 5.

DISCUSSION

The present study was conducted for the purposes of determining the psychometric properties of the Turkish version of PRSexDQ, developed for the clinical measurement of medication-induced sexual dysfunctions. Cronbach's Alpha value for the Turkish version was calculated to be 0.906. The same value was 0.93 for the original version (Montejo et al. 2000). Having a value above 0.7 in this sense indicates that the existing sample is reliable. That all item-total score correlations being greater than 0.7 and that the Cronbach's Alpha value calculated after the removal of any of the items not being above 0.906 also point out to a high internal consistency for the scale (Pallant, 2016). All correlations between total scores and items were found to be statisically significant with values above 0.9. These findings demonstrate that the scale is internally valid. In order to assess the temporal reliability of the scale, PRSexDQ-T was readministered 30 days later with 41 persons. The determined Pearson correlation coefficients ranging between 0.939 and 0.985 demonstrate temporal consistency.

In order to determine the validity of the criteria under the scale, its correlation with ASEX and GRISS was assessed separately for the two sexes. For males, a strong correlation was found between PRSexDQ-T and ASEX and all its subscales. Likewise, for females, a strong or moderate correlation was found between PRSexDQ-T and ASEX and all its subscales. For both females and males, PRSexDQ-T and ASEX and almost all of its subscales are correlated. According to these results, within the right context, it may be possible for PRSexDQ-T to be utilized in the evaluation of the quality of sexual functions instead of ASEX or similar scales. In other saying, PRSexDQ-T can serve as a beneficial and practical instrument in evaluating and numerically measuring sexual experience in persons using psychotropic medication. The questionnaire being relatively brief may allow for an easier application at clinics and under study and trial designs such as community screening where assessing larger numbers of people within a shorter amount of time would be helpful. No scale which directly evaluates sexual functions was utilized while assessing the validity of the original version of the questionnaire (Montejo et al. 2000). As when compared with ASEX, PRSexDQ-T addresses all phases of sexual function and focuses specifically on medication-induced changes (Wang et al. 2016) it may come to the fore for use under certain study designs. No study which clearly reveals the relationship between PRSexDQ-T, ASEX and GRISS was found as a result of the literature reviews carried out. Hence, it can be said that the results obtained shall contribute to the literature.

Presumably, reporting on sexual dysfunctions is more rare in phase studies than under real circumstances. That could be due to the fact that patients and clinicians may associate medication-induced sexual dysfunctions with the relevant psychopathologies and relationship problems rather than the medication itself. Relying on the self-reporting of sexual side effects may give way to an erroneous identification of the prevalence of sexual problems. Since the discussion of sexual side effects may be deemed as embarrassing, self-reporting seems to be more difficult to expect than reporting after questioning (Atmaca 2020, Baldwin et al. 2015, Montejo et al. 2015). The first two items of PRSexDQ-T (Item A: Have you observed any type of change in your sexual activity since you began taking the treatment? and Item B: Has the patient spontaneously reported this alteration or was it necessary to expressly question him or her to discover the sexual dysfunction?) may be utilized to evaluate this issue. Sexual side effects induced by psychotropic medication may bear the risk of patients quitting their treatment (Montejo et al. 2000, Montejo et al. 2019). Considering that unwanted sexual side effects are also underreported, it becomes important for sexual functions in persons using antidepressants to be assessed at each stage. Relying on the self-reporting of sexual side effects may cause an underestimation of the prevalence of sexual problems. In the assessment of sexual dysfunction reliable, valid and sensitive rating scales should be preferred rather than self-reporting scales or open ended questions (Baldwin et al. 2015).

Many antidepressants may decrease sexual fulfillment (Baldwin et al. 2015, Burhan and Kuru 2020). It can be said that assessing the status of sexual fulfillment alongside the negative sexual experiences of those who receive psychopharmaceutical treatment would be of import. Considering the relationship of PRSexDQ-T with GRISS which measures sexual fulfillment, a significant and positive correlation was found between PRSexDQ-T and GRISS and GRISS-Male Fulfillment, Avoidance, Sensuality and Impotence subscales and PRSexDQ-T and GRISS and GRISS-Female Frequency, Fulfillment, Avoidance and Anorgasmia subscales. Per these results, PRSexDQ-T may be utilized in measuring negative sexual experiences in persons using psychotropic medication as well as changes in their sexual fulfillment. That high scores for both sexes in ASEX and for females in GRISS were observed for persons identified through PRSexDQ-T to experience sexual side effects supports this notion. This difference between sexes may stem from the differences in sexual physiology of females and males. Therefore, sexual side effects may display qualitative and quantitative differences relative to one another. Scales evaluating sexual side effects assess the complaints of females and males through separate questions. This makes it difficult to perform a comparison of differences occurring in females and males in this study.

The original version of the questionnaire is observed to have a single-factor structure for 5 questions (PRSexDQ1-PRSexDQ5) providing a numerical result for a singular scale,

similar to the Turkish version applied in the present study. Also, the Cronbach's Alpha coefficient was 0.93 (the same is 0.906 for the Turkish version) (Montejo et al. 2000). Likewise, the Chinese version of PRSexDQ confirms the single-factor structure and provides a Cronbach's Alpha coefficient of 0.902 (Wang et al. 2016).

Limitations

While internal consistency and criteria validity of PRSexDQ-T have been demonstrated, the present study has several limitations. The correlation between sexual experiences, measured by PRSexDQ-T, and depression symptoms was not evaluated. Another limitation is that it was not possible to compare the scores obtained from the scale with treatment related variables such as antidepressant medications, medication dose and multi-medication use. The present study was designed in order to evaluate cross sectional data. Planning of follow-up studies may be recommended to assess the power of the scale to measure variables that arise during the pharmacotherapy process. Likewise, the fact that the study was conducted solely among antidepressant medication users prevents generalisation for people who use other psychotropic medications or have other disorders. There are studies evaluating sexual functions through PRSexDQ-T in antipsychotic users as well as those using antidepressants (Martínez-Giner et al. 2022). The validity and reliability of the Turkish version should be re-examined in samples consisting of people using different psychotropic medications such as antipsychotics. Failure to detect the cut-off score of the scale may also make it difficult for use in clinical decision-making processes. While forming the sample, at least one month of SSRI use was determined as a criterion to facilitate data collection and to speed up the study. However, this timeframe may not be sufficient for sexual side effects to occur. The fact that the study did not include follow-up also restricts a complete revelation of drug-induced changes. Since all the evaluations made through the scale were performed by a single person, the inter-implementor validity of the scale was not ensured; and this result can be considered as another limitation of the study.

CONCLUSION

Most antidepressants cause decreased libido, delayed and/or inhibited ejaculation and erectile dysfunction (Trinchieri et al. 2021). In patients with depression receiving SSRI treatment, sexual dysfunction may be more frequent and this may impair marital satisfaction and quality of life (Penubarthi et al. 2022). Thus, routine screening for sexual dysfunction in users of antidepressants, especially SSRIs, may be required. According to the review of the literature, it is possible to conclude that there are insufficient studies investigating the relationship between antidepressants, or more specifically SSRIs, and sexual dysfunctions in Turkey. Consequently, based on this study, this scale was introduced to the Turkish literature for the measurement and follow-up of negative sexual experiences and satisfaction in SSRI users. The fact that the scale is brief and simple when compared to alternatives such as ASEX and GRISS may facilitate its rapid implementation and widespread use. However, a cross-sectional application of the scale may cause limitations in revealing the etiology of changes in sexual functions. The scale by itself does not have a function to fully reveal the causes of sexual dysfunctions. This scale may pave the way for further research on the quality and quantity of sexual side effects related to psychotropic drugs in Türkiye. Follow-up studies can be planned to further understand the changes that occur especially with medication use.

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