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Sexual dysfunction and associated factors in Thai patients with psychiatric disorders

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ABSTRACT

Background Sexual dysfunction is common among patients with psychiatric disorders but might be under-reported due to Asian sociocultural factors. Recognition of sexual dysfunction and associated factors in this vulnerable population would help clinicians properly assess and manage related conditions.

Aims We aimed to examine the prevalence of sexual dysfunction and its associated factors among patients with psychiatric disorders in Thailand.

Methods This was a cross-sectional study. We enrolled participants aged 18 and older who visited the psychiatry clinic at King Chulalongkorn Memorial Hospital in Bangkok, Thailand between August 2020 and December 2021. Demographic and clinical data were assessed, and all psychiatric disorders and sexual dysfunctions were diagnosed by clinical interview using the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. Statistical analysis was done to explore the association between sexual dysfunction and related factors.

Results Sexual dysfunction was diagnosed in 101 (50.0%) of the total 202 participants. The mean (standard deviation, SD) age was 30.2 (9.0) years, and the majority of patients were men (54.5%), single (81.2%), employed (47.5%) and had a coexisting depressive disorder (48.0%). Multivariable logistic regression analysis showed a significant association between sexual dysfunction and quality of life, unemployment, and the dosage of antidepressants and benzodiazepines.

Conclusions The prevalence of sexual dysfunction among this population was relatively high. However, the findings may represent only a portion of affected psychiatric patients for others with sexual dysfunction symptoms but without functional impairment did not meet the diagnostic criteria for sexual dysfunction. Improvement of quality of life and optimising antidepressant/benzodiazepine dosage should be further investigated for promoting sexual function in patients with mental disorders.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Sexual dysfunction is underestimated in Asian patients with psychiatric disorders.

WHAT THIS STUDY ADDS

⇒ The prevalence of sexual dysfunction is high and associated with either the dosage of pharmacological treatment (antidepressants and benzodiazepines) or psychosocial factors (quality of life and unemployment).

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This study highlights a hidden burden of sexual dysfunction among Thai patients with psychiatric disorders. Clinicians should investigate these issues while being mindful of cultural considerations.

INTRODUCTION

The number of individuals with psychiatric disorders has increased to the extent that their accompanying health burdens are now the leading cause of years of healthy life lost due to disability.[1] However, the delivery of effective psychiatric care is often challenged by the restrictions (or lack) of healthcare policies and limited resources. This is especially true in developing countries[2] where, unfortunately, discontinuation of psychiatric treatment is common even though individuals have accessed the mental healthcare system. Barriers to medication adherence include lack of insight, poor family support, stigmatisation, financial problems, long treatment duration and side effects of psychotropic medications.[3]

A common reason for medication non-compliance is sexual dysfunction due to adverse reactions to several psychotropic medications.[4] Most categories of psychotropic drugs (eg, antidepressants, antipsychotics, anxiolytics and mood stabilisers) are reported to be associated with sexual dysfunction.[5] Moreover, psychiatric disorders can manifest as sexual dysfunction, such as hyposexuality in major depressive disorder with anhedonia[6 7] or sexual aversion in anxiety disorder.[8] The interplay between sexual dysfunction and psychiatric disorders is challenging for clinicians to detect while providing proper management for these two conditions. However, sexual dysfunction and related issues may be under-reported and

understudied, especially in areas where discussion about sex is taboo, such as in Asian countries. Only a few studies focusing on sexual dysfunction among Asian populations have been [9]carried out, and more culturally specific investigations are needed.

Apart from psychiatric disorders and prescribed medications, social and cultural factors are notable risk factors for sexual dysfunction. Additional research on these psychosocial influences is required to provide guidance for more comprehensive, suitable treatment for sexual dysfunction.[10] To fill sociocultural gaps in the knowledge of sexual dysfunction globally, our study examined the prevalence of sexual dysfunction and its associated factors among patients with psychiatric disorders in Thailand, a middle-income Asian country.

METHODS

Study population

This was a cross-sectional study. We enrolled out-patients aged 18 and older who visited the psychiatry clinic at King Chulalongkorn Memorial Hospital, a quaternary teaching hospital in Bangkok, Thailand between August 2020 and December 2021. Each patient selected could freely decide if they wished to join the study; written informed consent was obtained for those who agreed to participate. Inclusion criteria for study participation were being at least 18 years of age, able to communicate in Thai, and having a diagnosis of depressive disorder, bipolar disorder, anxiety disorder, or schizophrenia. Exclusion criteria were an unstable medical or psychiatric condition or an impaired ability to communicate. Demographic and clinical data were assessed, and sexual dysfunction was diagnosed by a sole psychiatrist using the clinical interview for the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). Adequate sample size was determined by the Cochrane formula, and convenience sampling was used. Through our study, 202 participants were invited to participate and none of them refused to join or was excluded from the study. The flowchart of participants' enrolment is shown in figure 1.

Demographic and clinical data

Demographic and clinical data included sexual identity, age, body mass index (BMI), marital status, education, occupation and underlying medical issues. Psychiatric records were assessed for the diagnosis, duration of illness, the severity of symptoms, substance abuse, history of electroconvulsive therapy and psychotropic medications. All psychiatric diagnoses were based on the DSM-5.[11] The dosage of all psychotropic agents was adjusted to the psychotropic dosage equivalence using the Anatomical Therapeutic Chemical as the classification system and the defined daily dose method.[12] We used the second version of the Brief Psychiatric Rating Scale (BPRS), which comprises 18 items measuring multiple dimensions of psychiatric symptoms, and categorised them into two grades of severity with a cut-off score of 36.[13] The 26-item Thai version of the World Health Organization (WHO) Quality of Life-BREF was used to measure the quality of life of all participants.[14] Four domains of quality of life were assessed by the tool, including physical health, psychological health, social relationships and environmental health. The total score was positively correlated with better quality of life, and those with a score higher than 95 were considered to have a good quality of life.

Sexual dysfunction

Sexual dysfunction was diagnosed using diagnostic criteria from the DSM-5. According to the DSM-5, established diagnoses include male sexual dysfunctions (male hypoactive sexual desire disorder, erectile disorder, premature (early) ejaculation and delayed ejaculation), female sexual dysfunctions (female sexual interest/arousal disorder, female orgasmic disorder and genitopelvic pain/penetration disorder) and substance/medication-induced sexual dysfunction. To meet the criteria, neither medical conditions nor non-sexual mental disorders could explain the symptoms, and all sexual dysfunctions should cause significant functional impairment or individual distress. Thus, the diagnosis could not be made in those with symptoms who did not report impairment in function or significant distress. The sexual dysfunction history of all participants was assessed during a clinical interview conducted by a single psychiatrist to limit inter-rater bias.

Statistical analysis

Statistical analysis was conducted using the SPSS V.22.0 package program. Demographic and clinical data were

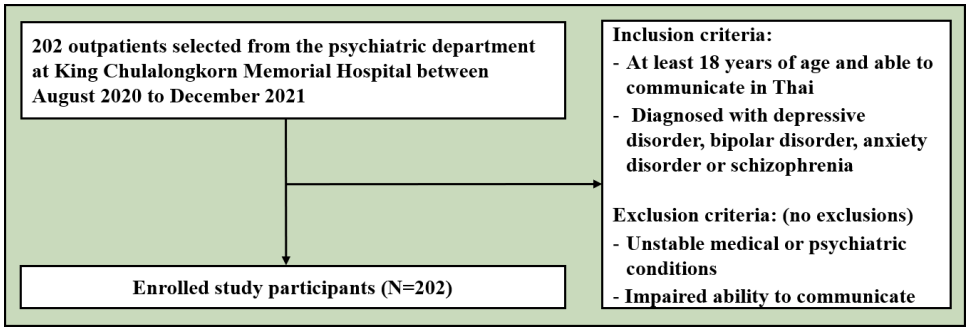

Figure 1 Participant enrolment.

presented in count and percentage, mean (standard deviation, SD) or median and interquartile range (IQR). Fisher's exact test, unpaired t-test and Mann-Whitney U test were used for the univariate analysis as appropriate. Notable risk factors for sexual dysfunction and significant factors from the univariate analysis were entered into multivariable logistic regression analysis to determine the associated factors of sexual dysfunction. A p value <0.05 was considered statistically significant.

RESULTS

In total, 202 participants were recruited: 110 men (54.5%) and 92 women (45.5%). The mean (SD) age was 30.2 (9.0) years, and the majority of patients were single (81.2%), employed (47.5%) and diagnosed with depressive disorder (48.0%). Antidepressants were most prevalently prescribed (81.2%), followed by benzodiazepines (44.1%). The mean (SD) of BPRS and quality of life scores were 26.6 (7.3) and 85.4 (11.8), respectively, which represented mild symptoms and fair quality of life. Demographic and clinical data are shown in table 1.

Table 2 displays the prevalence of each sexual dysfunction according to the DSM-5 criteria. Sexual dysfunction was found in half of the participants (50.0%), and the prevalence was slightly higher in female than male participants (53.3% vs 47.3%). Male hypoactive sexual desire disorder was the most frequent male sexual dysfunction (22.7%), while female sexual interest/arousal disorder was the most common female sexual dysfunction (38.0%). Substance/medication-induced sexual dysfunction accounted for sexual dysfunction in 11 patients and was much more prevalent in males than females (8.2% vs 2.2%).

Univariate analysis was performed (table 3). Sexual dysfunction was significantly associated with poorer quality of life (t=3.731, p<0.001) and unemployment (p=0.007). Only benzodiazepine use was significantly associated with sexual dysfunction (χ^2=9.721, p=0.002), and a correlation with higher dosage of benzodiazepines was found (U=6 410.000, p=0.001). Also, higher antidepressant dosage was strongly associated with sexual dysfunction (U=6 366.000, p=0.002); however, there was no significant association between antidepressant use and sexual dysfunction. The above-mentioned variables and notable risk factors for sexual dysfunction (age, BMI, substance use, diagnosis and psychotropic medications) were included in multivariable logistic regression (Nagelkerke R^2=0.245) (table 4). We found a significant association between sexual dysfunction and employment (adjusted OR=0.270, 95% CI: 0.102 to 0.715, p=0.008), quality of life (adjusted OR=0.972, 95% CI: 0.931 to 0.991, p=0.013), antidepressant dosage (adjusted OR=1.532, 95% CI: 1.106 to 2.121, p=0.010) and benzodiazepine dosage (adjusted OR=1.472, 95% CI: 1.129 to 1.919, p=0.004).

Additional multivariable analysis was done to examine factors associated with each specific sexual dysfunction (table 5). In males, male hypoactive sexual desire disorder was significantly associated with the dosage of benzodiazepines (adjusted OR=1.555, 95% CI: 1.163 to 2.079, p=0.003) and quality of life (adjusted OR=0.946, 95% CI: 0.909 to 0.985, p=0.007). Lower quality of life was also strongly associated with the erectile disorder (adjusted OR=0.095, 95% CI: 0.862 to 0.951, p<0.001),

Table 1 Demographic and clinical data of all participants (n=202)

Variables	n (%)
Male	110 (54.5)
Marital status	
Single	164 (81.2)
Married or cohabited	32 (15.8)
Divorced or widowed	6 (3.0)
Occupation	
Employee	96 (47.5)
Student	59 (29.2)
Business owner	19 (9.4)
Unemployed	28 (13.9)
Underlying medical diseases	20 (9.9)
Diagnosis	
Depressive disorder	97 (48.0)
Anxiety disorder	53 (26.2)
Schizophrenia	31 (15.3)
Bipolar disorder	21 (10.4)
History of electroconvulsive therapy	6 (3.0)
Current smoking	33 (16.3)
Current alcohol use	65 (32.2)
Any substance use	77 (38.1)
Antidepressant use	164 (81.2)
Antipsychotic agent use	66 (32.7)
Conventional antipsychotic agent	14 (6.9)
Atypical antipsychotic agent	56 (27.7)
Mood stabiliser use	26 (12.9)
Benzodiazepines use	89 (44.1)
Anticholinergic use	22 (10.9)
Medical drug use	17 (8.4)
	Mean (SD) or median [IQR]
Age, years	30.2 (9.0)
Education (years)	16.0 (2.9)
BMI (kg/m^2)	24.3 (4.8)
Illness duration (years)	3 [1, 6]
BPRS scores	26.6 (7.3)
Quality of life scores	85.4 (11.8)
Antipsychotic dosage, mg (n=66) chlorpromazine equivalence	175.0 [78.8, 401.3]
Antidepressant dosage, mg (n=164) fluoxetine equivalence	20.0 [20.0, 40.0]
Benzodiazepine dosage, mg (n=89) lorazepam equivalence	1.0 [0.5, 2.0]

BMI, body mass index; BPRS, Brief Psychiatric Rating Scale; IQR, interquartile range; SD, standard deviation.

Table 2 Prevalence of sexual dysfunction according to the DSM-5 criteria

Variables	n (%)
Having at least 1 sexual dysfunction disorder	101 (50.0)
Male (n=110)	
Having at least 1 sexual dysfunction disorder	52 (47.3)
Male hypoactive sexual disorder	25 (22.7)
Erectile disorder	24 (21.8)
Premature (early) ejaculation	23 (20.9)
Delayed ejaculation	10 (9.1)
Substance/medication-induced sexual dysfunction	9 (8.2)
Female (n=92)	
Having at least 1 sexual dysfunction disorder	49 (53.3)
Female sexual interest/arousal disorder	35 (38.0)
Female orgasmic disorder	32 (34.8)
Genitopelvic pain/penetration disorder	6 (6.5)
Substance/medication-induced sexual dysfunction	2 (2.2)

DSM-5, Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition.

and a contrary association between higher age and such condition was observed (adjusted OR=1.067, 95% CI: 1.004 to 1.133, p=0.035). Only antidepressant dosage reached a statistically significant association with ejaculation problems, particularly delayed ejaculation (adjusted OR=1.624, 95% CI: 1.069 to 2.486, p=0.023). In females, two significantly associated factors with female sexual interest/arousal disorder were age (adjusted OR=1.007, 95% CI: 1.016 to 1.141, p=0.013) and benzodiazepine dosage (adjusted OR=1.529, 95% CI: 1.065 to 2.197, p=0.022), which was also significantly associated with the female orgasmic disorder (adjusted OR=1.408, 95% CI: 1.032 to 1.920, p=0.031).

DISCUSSION

Main findings

Our results indicated an enormous but hidden burden of sexual dysfunction in Thai patients with mental disorders. Sexual dysfunction was slightly more prevalent in female than in male patients, consistent with findings from a previous study.[15] However, the same study showed a greater prevalence of sexual dysfunction for both sexes (male 84.7%, female 95.7%), compared with our findings (male 47.3%, female 53.3%). Sexual dysfunction has ranged widely in prevalence (16.8%–70.0%) based on the methods for diagnosing sexual dysfunction used in each study or population with specific mental disorders.[16–19] In Thailand, the prevalence of such conditions among psychiatric and non-psychiatric populations is understudied. Some previous findings reported the prevalence of sexual dysfunction in only specified sexual identity diagnoses, which were made using self-rated questionnaires.[20 21] We used the clinical interview for DSM-5 as a diagnostic method, in which either functional impairment or individual distress is a necessary symptom. Thus, some patients with sexual dysfunction symptoms might not have been categorised as having sexual dysfunction since the essential criterion was absent. In addition, most patients were single and, thus, may be less impacted by sexual dysfunction symptoms than those in coupled relationships, so sexual dysfunction could not be diagnosed.

No significant association between sexual dysfunction and psychiatric diagnosis was found. Sexual dysfunction occurred in approximately half of the patients with the enrolled diagnoses (depressive disorder, schizophrenia, anxiety disorder and bipolar disorder). Sexual dysfunction may be overlooked in some patients with social impairments, such as those experiencing the negative symptoms of schizophrenia; nevertheless, the dysfunction is prevalent in this group, and screening is recommended.[22] Therefore, sexual dysfunction should be considered in all patients regardless of their psychiatric diagnosis. Also, substance use was not associated with sexual dysfunction. Strong evidence of negative sexual consequences from the use of alcohol and tobacco was lacking.[23] Some substances of abuse, methamphetamine in particular, could enhance sexual pleasure and might be used as self-medication for sexual dysfunction.[24] The effect of alcohol, which shares a similar pathway with benzodiazepines, impacted sexual health bidirectionally,[25 26] and the exact effects of such substances in clinical settings were hard to conclude. Therefore, further studies are needed. However, the onset of sexual dysfunction may either precede or follow psychiatric disorders, and causality cannot be presumed according to our study design.

To the best of our knowledge, the association between employment and sexual dysfunction has not been widely mentioned in previous studies, whereas the poorer quality of life has been notably linked with sexual dysfunction.[27 28] For vulnerable populations, including patients with psychiatric disorders, being employed was a strong protective factor against the poor quality of life[29] and could explain the lower sexual dysfunction in those employed or their reporting better quality of life. Additionally, both sexual health and occupational functioning were measured by the tool used to assess the quality of life.[14] Correlation between these factors was solid, and improving employment or quality of life might promote sexual function. However, a causal relationship between sexual dysfunction and such factors could not be assumed due to our study design.

Our results showed a significant correlation between sexual dysfunction and the dosage of antidepressants and benzodiazepines in the negative direction. Antidepressants are remarkable for their sexual side effects[30 31] and the dosage of prescribed antidepressants is one crucial

Table 3 Univariate analysis of sexual dysfunction and associated factors

Categorical variables	No sexual dysfunction (n=101), n (%)	Sexual dysfunction (n=101), n (%)	χ^2	P value
Male	58 (57.4)	52 (51.5)	0.499	0.480
Married or cohabited	19 (18.8)	13 (12.9)	0.928	0.335
Employed	94 (93.1)	80 (79.2)	8.126	0.007*
Underlying medical illness	13 (12.9)	7 (6.9)	1.387	0.238
Diagnosis			0.192	0.979
Depressive disorder	47 (46.5)	50 (49.5)		
Anxiety disorder	27 (26.7)	26 (25.7)		
Schizophrenia	16 (15.8)	15 (14.9)		
Bipolar disorder	11 (10.9)	10 (9.9)		
History of electroconvulsive therapy	2 (2.0)	4 (4.0)	–	0.683
Current smoking	17 (16.8)	16 (15.8)	0.000	1.000
Current alcohol use	33 (32.7)	32 (31.7)	0.000	1.000
Any substance use	36 (35.6)	41 (40.6)	0.336	0.562
Antidepressant use	77 (76.2)	87 (86.1)	2.625	0.104
Antipsychotic agent use	29 (28.7)	36 (35.6)	0.817	0.366
Conventional agent	6 (5.9)	8 (7.9)	0.077	0.783
Atypical agent	23 (22.8)	33 (32.7)	2.001	0.157
Mood stabiliser use	11 (10.9)	15 (14.9)	0.397	0.529
Benzodiazepine use	33 (32.7)	56 (55.4)	9.721	0.002*
Anticholinergic agent use	9 (8.9)	13 (12.9)	0.816	0.499
Medical drug use	10 (9.9)	7 (6.9)	0.257	0.613
Continuous variables	**Mean (SD) or median [IQR]**		**t or U**	**P value**
Age (years)	29.8 (9.0)	30.6 (9.0)	–0.672	0.502
Education (years)	16.0 (3.1)	16.0 (2.7)	0.024	0.981
BMI (kg/m^2)	24.9 (5.0)	23.6 (4.6)	1.974	0.050
Illness duration (years)	3.0 [1.0, 6.0]	3.0 [1.0, 6.0]	5 193.000	0.820
BPRS scores	25.7 (7.1)	27.6 (7.4)	–1.859	0.064
Quality of life	89.1 (14.1)	81.6 (14.5)	3.731	<0.001*
Antipsychotic dosage (mg CPZ equivalence)	0 [0.0, 60.0]	0 [0.0, 100.0]	5 415.500	0.363
Antidepressant dosage (mg FXT equivalence)	20.0 [6.0, 26.3]	20.0 [19.2, 40.0]	6 366.000	0.002*
Benzodiazepine dosage (mg LOR equivalence)	0 [0.0, 0.5]	0.5 [0.0, 1.3]	6 410.000	0.001*

*p<0.05.
BMI, body mass index; BPRS, Brief Psychiatric Rating Scale; CPZ, chlorpromazine; FXT, fluoxetine; IQR, interquartile range; LOR, lorazepam; SD, standard deviation.

Table 4 Multivariable logistic regression for factors associated with sexual dysfunction

Variables	Adjusted OR (95% CI)	P value
Employed	0.270 (0.102 to 0.715)	0.008*
Quality of life	0.972 (0.931 to 0.991)	0.013*
Antidepressant dosage†	1.532 (1.106 to 2.121)	0.010*
Benzodiazepine dosage‡	1.472 (1.129 to 1.919)	0.004*

*p<0.05.
†20 mg fluoxetine equivalence.
‡1 mg lorazepam equivalence.
CI, confidence interval; OR, odds ratio.

factor.[32] Sexual dysfunction, including erection, orgasm and ejaculation problems, was frequent among those using benzodiazepines, especially with higher dosages of the drug. To the contrary, increased desire or sexual disinhibition was commonly found when low-dose benzodiazepines were used.[25 26] Thus, though lower dosages of benzodiazepines seem to promote sexual function, sexual dysfunction becomes more common with increasing dosages of benzodiazepines, as reported in our study; determining the safe dosage of benzodiazepines for sexual dysfunction prevention is worth studying. Interestingly, a greater proportion of those having sexual dysfunction

Table 5 Factors associated with each specific sexual dysfunction

Dependent variables	Factors	Adjusted OR (95% CI)	P value
Male hypoactive sexual desire disorder (n=25)	Benzodiazepine dosage†	1.555 (1.163 to 2.079)	0.003*
	Quality of life	0.946 (0.909 to 0.985)	0.007*
	BPRS	0.918 (0.834 to 1.012)	0.084
Erectile disorder (n=24)	Quality of life	0.095 (0.862 to 0.951)	<0.001*
	Age	1.067 (1.004 to 1.133)	0.035*
	Alcohol use	3.115 (0.965 to 10.057)	0.057
	Benzodiazepine dosage†	1.319 (0.950 to 1.831)	0.098
Delayed ejaculation (n=10)	Antidepressant dosage‡	1.624 (1.069 to 2.486)	0.023*
	Antipsychotic dosage§	1.210 (0.999 to 1.465)	0.051
	Benzodiazepine dosage†	0.750 (0.493 to 1.140)	0.178
Premature ejaculation (n=23)	Antidepressant dosage‡	1.630 (0.953 to 2.790)	0.075
Female sexual interest/arousal disorder (n=35)	Age	1.007 (1.016 to 1.141)	0.013*
	Benzodiazepine dosage†	1.529 (1.065 to 2.197)	0.022*
	Being in a couple relationship	0.337 (0.071 to 1.594)	0.170
Genitopelvic pain/penetration disorder (n=6)	BMI	0.684 (0.467 to 1.001)	0.051
	Quality of life	0.923 (0.843 to 1.010)	0.081
Female orgasmic disorder (n=32)	Benzodiazepine dosage†	1.408 (1.032 to 1.920)	0.031*
	Antidepressant dosage‡	1.524 (0.893 to 2.602)	0.122
	Smoking	0.310 (0.051 to 1.888)	0.204

*p<0.05.
†1 mg lorazepam equivalence.
‡20 mg fluoxetine equivalence.
§50 mg chlorpromazine equivalence.
BMI, body mass index; BPRS, Brief Psychiatric Rating Scale.

in our study used antipsychotic agents, but this finding did not reach statistical significance. The antipsychotic dosages given to our study's subjects were rather low and might not be related to sexual dysfunction because the latter requires a higher dosage of antipsychotic agents to produce the side effect. This phenomenon has to do with dopamine activity and prolactin levels, which might also differ in male and female patients.[33 34]

Though age was not significantly associated with overall sexual dysfunction, our study found higher age to be one predictor for erectile disorder and female sexual interest/arousal disorder. Declination of erectile function and female sexual desire due to ageing was also shown in other studies,[35 36] and clinicians were recommended to screen for these two specific sexual dysfunctions in older patients. Also, patients with erectile disorder seemed to report lower quality of life, which was consistent with several previous studies.[37–39] We believe self-esteem played a major role in linking poorer quality of life with sexual dissatisfaction or erectile dysfunction, especially if combined with psychogenic aetiologies,[40] and explained the similar finding among patients with male hypoactive sexual desire disorder. The association between psychotropic medication use and some specific sexual dysfunctions was also noted. Our study confirmed the relationship between antidepressant dosage and delayed ejaculation.[41] Apart from this well-known linkage, we emphasised that higher dosages of benzodiazepines are associated with female orgasmic disorder and sexual desire disorder in both male and female patients. Commonly prescribed in the psychiatric unit, the dosage of benzodiazepines should be optimised for minimal side effects and maximum benefit. An investigation focusing on this category of medications would be beneficial.

Our study is the first to report the prevalence of sexual dysfunction among Thai patients with mental disorders. Our results highlight the obscured magnitude of sexual dysfunction that may exist among those with psychiatric disorders, though generally, it may go undetected because it is under-reported by patients and under-evaluated by clinicians. We used the clinical interview for DSM-5, the gold standard for diagnosing sexual dysfunction, as assessed by a sole psychiatrist to ensure the accuracy of sexual dysfunction diagnosis and limit inter-rater bias. Multidimensional factors were recorded and analysed.

Limitations

Some limitations should be mentioned. The DSM-5 diagnosis of sexual dysfunction includes impairment in function or significant distress to the individual, so those

with sexual dysfunction symptoms were not classified as having sexual dysfunction in our study unless these criteria were fulfilled. Our sample size was rather small, and we conducted this study in the outpatient psychiatric department of one university hospital in the metropolitan region of Bangkok. Thus, the generalisability of our results might be limited to patients with less severe symptoms or those living in urban areas. In addition, our study was a cross-sectional design and could not explain causal relationships between sexual dysfunction and associated variables. There was no control group taken from the general population. Future studies should have a greater sample size and be conducted using a prospective cohort. Studies using standardised sexual dysfunction self-rated screening tools should evaluate them for their psychometric properties and their feasibility for implementation in clinical settings, especially in countries where sexual issues are taboo for discussion and psychiatrists are lacking.

Implications

Sexual dysfunction among this population of Thai patients with psychiatric disorders was relatively high and could likely be even higher given that many patients did not meet the criteria for a formal diagnosis. Further studies should investigate how to improve patients' quality of life and optimise prescription dosaging.

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