

1 **Sexual Dysfunction in adult patient with Anxiety Disorder & their quality of life in a
2 tertiary care Hospital of Tripura: A Cross-Sectional Study**

3 **Abstract**

4 **Background:** Sexual dysfunction (SD) is a significant yet under-recognized co-morbidity
5 in patients with anxiety disorders, with substantial evidence of association and considerable
6 impact on quality of life. The prevalence and impact remain underexplored, particularly in
7 Eastern India.

8 **Objective:** To estimate the prevalence of sexual dysfunction in adults with anxiety
9 disorders and assesses the impact on quality of life using standardized assessment tools.

10 **Methods:** A descriptive cross-sectional study was conducted at Department of Psychiatry,
11 Agartala Government Medical College and GB Pant Hospital over 18 months. A total of
12 120 consecutive patients aged 18—60 years with ICD-10 confirmed anxiety disorders were
13 assessed after fulfilling inclusion & exclusion criteria. Arizona Sexual Experience (ASEX)
14 scale and the World Health Organization Quality of Life-Brief (WHOQOL-BREF)
15 questionnaire tools were applied.

16 **Results:** The overall prevalence of sexual dysfunction among anxiety disorder patients was
17 65.8% (n=79). Generalized Anxiety Disorder (GAD) was the most common diagnosis
18 (63.3%), followed by agoraphobia (15.8%). Panic Disorder exhibited the highest sexual
19 dysfunction prevalence (73.3%). Sexual drive dysfunction was the most frequently affected
20 domain (26.7%). Patients with sexual dysfunction demonstrated significantly lower quality
21 of life scores across all domains, particularly in the physical domain (39.93 ± 12.14 vs.
22 69.64 ± 16.67 ; $p < 0.001$). Strong negative correlations were observed between ASEX total
23 scores and physical domain WHOQOL-BREF scores in both GAD ($r = -0.914$, $p < 0.001$)
24 and agoraphobia ($r = -0.732$, $p < 0.001$) subgroups.

25 **Conclusion:** Sexual dysfunction is highly prevalent in anxiety disorder patients and
26 significantly impairs quality of life across all domains. Comprehensive screening and
27 integrated treatment addressing both psychological and sexual health are essential for
28 improving patient outcomes. Clinicians must prioritize assessment of sexual dysfunction as
29 part of holistic anxiety management.

30 **Keywords:** Anxiety Disorders, Sexual Dysfunction, Quality of Life, ASEX Scale, WHOQOL-BREF

31

32 **Introduction**

33 Anxiety represents an emotion characterized by feelings of tension, apprehension, and
34 autonomic hyperactivity [1]. It manifests across multiple anxiety disorder subtypes,
35 including Generalized Anxiety Disorder (GAD), Panic Disorder, Agoraphobia, Social
36 Phobia, and Specific Phobia [1, 2]. The World Health Organization estimates that anxiety
37 disorders affect approximately 449 million people globally, representing a significant
38 public health burden with substantial economic and social costs [3]. In India, the National
39 Mental Health Survey 2016 documented the considerable prevalence of mental morbidity,
40 yet anxiety disorders remain inadequately recognized in primary care settings [4].

41 Sexual dysfunction (SD) in anxiety patients represents a significant yet neglected clinical
42 complication. Despite chronic nature and high prevalence of anxiety disorders, a critical
43 gap exists in clinical recognition and management of associated sexual dysfunction [5]. The
44 relationship between anxiety and sexual functioning has been documented extensively, yet
45 sexual dysfunction remains poorly recognized and underreported by both patients and
46 healthcare providers [6]. This communication barrier stems from cultural taboos,
47 insufficient provider training, and patient embarrassment in discussing sexual concerns.

48 The physiological mechanisms underlying the anxiety-sexual dysfunction association
49 include dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis, sympathetic
50 nervous system hyperactivity, and cognitive disturbances during sexual activity [7, 8]. Men
51 with anxiety disorders commonly experience premature ejaculation and erectile
52 dysfunction, while women report reduced sexual desire, arousal difficulties, and
53 anorgasmia [9]. The impact of sexual dysfunction extends beyond sexual health,
54 significantly affecting overall quality of life, intimate relationships, psychological well-
55 being, and long-term treatment outcomes [10, 11]. However, comprehensive studies
56 examining the association between anxiety-specific subtypes and sexual dysfunction,
57 particularly in Eastern India, remain scarce and represent an evidence gap. This Study is
58 therefore an attempt to estimate the magnitude of sexual dysfunction in anxiety disorder
59 patient and assess their quality of life.

60

61 **Materials and methods**

62 **Study Design and Setting**

63 A descriptive cross-sectional study was conducted at the Department of Psychiatry,
64 Agartala Government Medical College and GB Pant Hospital, Agartala, Tripura, India. The
65 hospital serves as a tertiary care facility providing comprehensive psychiatric and general
66 medical services to a catchment population of approximately 2 million. The study duration
67 spanned 24 months (18 months for data collection, 6 months for analysis), conducted from
68 May 2019 to May 2021. Aim of the study was the occurrence of sexual dysfunction in
69 adults' patient with anxiety disorders and their quality of life attending the OPD and IPD of
70 Department of psychiatry of AGMC and GB PANT hospital Agartala, Tripura.

71

72 **Study Population and Sampling**

73 **Inclusion criteria:**

74

75 Patients aged 18 to 60 years with an ICD-10-confirmed diagnosis of anxiety disorder,
76 established by a psychiatrist through a clinical interview, who are willing to provide written
77 informed consent, were included. Individuals of all genders were eligible.

78 **Exclusion criteria:**

79

80 Patients who were unwilling to participate, had a history of substance use disorder, or had
81 co-morbid psychiatric illnesses such as depression or psychosis were excluded. Individuals
82 with concurrent systemic illnesses including endocrine, cardiovascular, or neurological
83 disorders were also excluded. Patients with a history of any psychiatric disorder preceding
84 the onset of anxiety disorder, as well as those with previous use of antidepressants or other

85 psychotropic medications (to eliminate medication-related sexual dysfunction), were not
86 included.

87 **Sample Size and Sampling Method:** 120 patients were recruited over 18 months using
88 consecutive sampling methodology. All patients attending the OPD/IPD of Department of
89 Psychiatry fulfilling inclusion & exclusion criteria were invited to participate sequentially
90 until the target sample size was achieved.

91
92 **Assessment and measurement tools:** Sexual dysfunction was assessed using the Arizona
93 Sexual Experience (ASEX) Scale, a validated five-item instrument that evaluates multiple
94 domains of sexual functioning, with each item scored on a 1 to 6 Likert scale, yielding a
95 total score range of 5 to 30. Quality of life was measured using the WHO Quality of Life–
96 Brief (WHOQOL-BREF), a 26-item questionnaire that assesses quality of life across four
97 domains, with each item rated on a 1 to 5 scale.

98 **Data Collection Procedure**

99 Eligible patients were approached in the psychiatry outpatient department following clinical
100 assessment. After obtaining informed written consent, participants completed the
101 sociodemographic proforma, ICD 10 diagnostic criteria, ASEX scale, and WHOQOL-
102 BREF questionnaire in a private, confidential setting. Average completion time was 30–45
103 minutes. Data analysis was performed using SPSS version 20.0

104 **Results:-**

105 **Sociodemographic Characteristics**

106 A total of 120 patients with ICD-10 confirmed anxiety disorders were enrolled in the study.
107 The mean age of participants was 38.0 ± 12.4 years (range: 18–60 years). The sample was
108 predominantly male (60.8%, n=73), married (55.8%, n=67), from rural backgrounds
109 (68.3%, n=82), belonging to lower socioeconomic strata (Class IV: 45%, n=54), and with
110 secondary to higher secondary education (71.7%, n=86). Marital status distribution revealed
111 that 29.2% (n=35) were unmarried, 9.2% (n=11) were widowed, and 5.8% (n=7) were
112 divorced. Educational attainment showed 5.0% (n=6) with primary education or below,
113 16.6% (n=20) with middle school completion, 39.2% (n=47) with secondary completion,
114 32.5% (n=39) with higher secondary, and 6.7% (n=8) with graduate or higher education.

115
116 **Table 1: Distribution of study participants according to ICD based classification**
117 **(n=120)**

118 Diagnosis based on ICD 10	119 Frequency	120 Percent
40.0 (Agoraphobia)	19	15.8
40.1 (Social phobias)	6	5.0
41.0 (Panic disorder)	15	12.5
41.1 (Generalised Anxiety Disorder)	76	63.3
41.3 (Other Mixed Anxiety Disorder)	4	3.3

Total	120	100.0
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118 Generalized Anxiety Disorder (F41.1) was the most prevalent diagnosis, affecting 63.3%
 119 (n=76) of the sample. This was followed by Agoraphobia (F40.0) at 15.8% (n=19), Panic
 120 Disorder (F41.0) at 12.5% (n=15), Social Phobia (F40.1) at 5.0% (n=6), and Mixed Anxiety
 121 Disorder (F41.3) at 3.3% (n=4). The predominance of GAD reflects current
 122 epidemiological patterns in anxiety disorder prevalence in clinical settings, where GAD
 123 represents a significant proportion of anxiety presentations [29].

124 **Overall prevalence of sexual dysfunction:**

125
 126 Sexual dysfunction was observed in 65.8% of patients with anxiety disorders. The highest
 127 prevalence was seen in panic disorder (73.3%), followed by agoraphobia (68.4%), social
 128 phobia (66.7%), and generalized anxiety disorder (64.1%), while mixed anxiety disorders
 129 showed the lowest prevalence (50%). The particularly high rate in panic disorder likely
 130 reflects pronounced autonomic hyper arousal that interferes with normal sexual response,
 131 whereas the lower prevalence in mixed anxiety disorders may be related to comparatively
 132 less severe or fluctuating anxiety symptoms.

133

134 **Table: 2 Distribution of study participants with sexual dysfunction based on ASEX**
 135 **domain dysfunction (n=79)**

Sex	Total (n=120)	Female (n=47)	Male (n=73)	Chi square	p value
Sexual Drive	32 (26.7%)	12 (25.5%)	20 (27.4%)	0.05	0.82
Arousal	22 (18.3%)	9 (19.1%)	13 (17.8%)	0.034	0.853
E/L	11 (9.2%)	3 (6.4%)	8 (11.0%)	0.72	0.39
Orgasm	13 (10.8%)	5 (10.6%)	8 (11.0%)	0	0.956
Satisfaction	16 (13.3%)	3 (6.4%)	13 (17.8%)	3.23	0.072
Overall	79 (65.8%)	34 (72.3%)	45 (61.6%)	3.75	0.052

136

137 Sexual drive dysfunction was the most frequently affected domain overall, present in 26.7%
 138 (n=32) of the total sample. This was followed by satisfaction dysfunction (13.3%, n=16),
 139 arousal dysfunction (18.3%, n=22), orgasm dysfunction (10.8%, n=13), and
 140 erection/lubrication dysfunction (9.2%, n=11). Gender-specific analysis revealed interesting
 141 patterns. Males demonstrated higher dysfunction in sexual drive (27.4% vs. 25.5%),
 142 erection/lubrication (11.0% vs. 6.4%), orgasm (11.0% vs. 10.6%), and satisfaction (17.8%

143 vs. 6.4%) domains. Females showed higher arousal dysfunction (19.1% vs. 17.8%),
 144 although most differences were not statistically significant. The satisfaction dysfunction
 145 difference approached statistical significance ($p=0.072$), with males reporting greater
 146 dissatisfaction with sexual experiences.

147 **Table:3 Gender-Specific ASEX Score Comparisons:**

ASEX Domain	Females (n=47)	Males (n=73)	Total	p-value (t-test)
	Mean±SD	Mean±SD	Mean±SD	
Sexual Drive	3.38±1.66	3.48±1.48	3.44±1.55	0.776
Arousal	3.29±1.48	3.02±1.62	3.12±1.57	0.360
Erection/Lubrication	2.55±1.36	2.82±1.34	2.72±1.35	0.291
Orgasm	2.93±1.29	2.90±1.41	2.91±1.36	0.887
Satisfaction	2.42±1.37	3.09±1.59	2.84±1.52	0.019{*}
Overall ASEX	14.59±3.14	15.38±3.97	15.08±3.62	0.254

148 *The satisfaction domain showed statistically significant higher dysfunction in males
 149 (3.09±1.59) compared to females (2.42±1.37; $p=0.019$). This finding challenges the
 150 prevailing assumption that women experience greater sexual satisfaction impairment in
 151 anxiety disorders and highlights the need for gender-sensitive clinical approaches in male
 152 anxiety patients.

153 **Table: 4 Correlation of ASEX domains with QoL Domains**

154 Patients with sexual dysfunction demonstrated significantly lower quality of life across all
 155 WHOQOL-BREF domains compared to those without sexual dysfunction:

WHOQOL-BREF Domain	No SD (n=41)	With SD (n=79)	p-value (t-test)
	Mean±SD	Mean±SD	
Physical Domain	69.64±16.67	39.93±12.14	<0.001*
Psychological Domain	63.25±14.83	42.55±13.47	<0.001*
Social Domain	58.17±15.42	46.82±14.38	<0.001*
Environmental Domain	55.31±16.08	48.76±15.64	0.047*
Total QoL Score	59.88±11.22	42.69±10.54	<0.001*

156
 157 The physical domain showed the most substantial difference (69.64±16.67 vs. 39.93±12.14;
 158 difference of 29.71 points; $p<0.001$), indicating that sexual dysfunction is associated with
 159 significantly reduced perception of physical well-being, energy, and capacity for activities.
 160 The psychological domain also showed marked impairment (63.25±14.83 vs. 42.55±13.47;
 161 difference of 20.70 points; $p<0.001$), reflecting negative psychological consequences of
 162 sexual dysfunction including reduced self-esteem, concentration difficulties, and dysphonic
 163 mood. Total QoL scores were markedly lower in the sexual dysfunction group

164 (42.69±10.54 vs. 59.88±11.22; $p<0.001$), representing a clinically meaningful difference of
165 17.19 points on the WHOQOL-BREF scale.

166 **Table: 5 Correlation Analysis: ASEX and WHOQOL-BREF in GAD Subgroup**

167 In the GAD subgroup (n=76), strong negative correlations were observed between ASEX
168 scores and quality of life domains:

ASEX Domain	Physical R(p value)		Psychological R(p value)		Social R(p value)		Environmental R(p value)	
Sexual Drive	- 0.811	0.00 0*	0.183	0.514	0.140	0.618	- 0.553	0.032*
Arousal	- 0.531	0.04 2*	0.367	0.179	0.122	0.665	- 0.441	0.100
Erection/Lubrication	- 0.074	0.79 4	-0.268	0.334	- 0.200	0.474	0.222	0.426
Orgasm	- 0.263	0.34 4	0.126	0.655	0.185	0.508	- 0.048	0.864
Satisfaction	- 0.201	0.47 3	0.002	0.993	- 0.352	0.198	- 0.089	0.752
ASEX Total	- 0.914	0.00 0*	0.226	0.418	- 0.033	0.906	- 0.463	0.082

169

170 ASEX total scores showed strong negative correlation with the physical domain ($r=-0.914$,
171 $p<0.001$), indicating that greater sexual dysfunction severity is associated with substantially
172 lower physical quality of life. Sexual drive dysfunction demonstrated strong negative
173 correlation with both physical domain ($r=-0.811$, $p<0.001$) and environmental domain
174 ($r=-0.553$, $p=0.032$), suggesting that reduced sexual desire is linked to decreased
175 perception of physical capacity and environmental control. Notably, minimal correlation
176 was observed between ASEX and social domain quality of life ($r=-0.033$, $p=0.906$), a
177 finding requiring further investigation regarding the complex relationship between sexual
178 dysfunction and social functioning in anxiety.

179 **Table 6: Correlation Analysis: ASEX and WHOQOL-BREF in Agoraphobia
180 Subgroup**

181 In agoraphobia patients (n=19), similar correlation patterns emerged:

ASEX Domain	Physical R(p value)		Psychological R(p value)		Social R(p value)		Environmental R(p value)	
Sexual Drive	-0.722	0.000*	-0.319	0.183	-0.208	0.392	-0.149	0.543
Arousal	-0.419	0.074	-0.112	0.647	0.131	0.593	0.038	0.879
Erection/Lubrication	-0.226	0.353	-0.368	0.121	-0.122	0.617	-0.484	0.036*

Orgasm	-0.152	0.534	0.081	0.742	-0.156	0.524	-0.120	0.624
Satisfaction	-0.514	0.025*	-0.138	0.574	-0.291	0.227	-0.108	0.661
ASEX Total	-0.732	0.000*	-0.294	0.222	-0.237	0.329	-0.261	0.280

182

183 ASEX total scores showed strong negative correlation with the physical domain ($r=-0.732$,
 184 $p<0.001$). Sexual drive dysfunction correlated strongly with physical domain impairment
 185 ($r=-0.722$, $p<0.001$). Erection/lubrication dysfunction correlated with environmental
 186 domain ($r=-0.484$, $p=0.036$), suggesting that physiological sexual dysfunction in
 187 agoraphobia patients is associated with diminished perception of environmental control and
 188 autonomy.

189

190 Discussion

191

192 This study is the first from Eastern India to comprehensively examine sexual dysfunction and
 193 quality of life in patients with anxiety disorders. The overall prevalence of sexual dysfunction
 194 was 65.8%, comparable to international reports ranging from 50% to 73%.^[23] Findings were
 195 consistent with earlier Indian data, including Kendurkar et al., who reported 64% prevalence in
 196 generalized anxiety disorder, closely matching the 64.1% observed in the present GAD sample.
 197 Panic disorder showed the highest prevalence (73.3%), likely related to autonomic
 198 hyperarousal, anticipatory anxiety, and avoidance of sexual activity associated with fear of
 199 panic attacks.^[24-26]

200

201 Males demonstrated significantly higher sexual satisfaction dysfunction than females,
 202 highlighting the need for focused assessment of sexual satisfaction in male anxiety patients.
 203 Female participants showed a slightly higher prevalence of arousal dysfunction, consistent
 204 with models suggesting greater cognitive and emotional modulation of female sexual
 205 response in anxiety disorders. The male predominance in the sample may reflect gender
 206 differences in healthcare-seeking behavior or cultural barriers limiting female reporting of
 207 sexual concerns.

208

209 Patients with sexual dysfunction experienced a marked reduction in quality of life,
 210 particularly in the physical domain, with over a 40% decrease in WHOQOL-BREF scores.
 211 A strong negative correlation between ASEX scores and physical quality of life in GAD
 212 patients indicates a close link between sexual dysfunction severity and perceived physical
 213 well-being. In contrast, minimal association with the social domain suggests that sexual
 214 dysfunction may affect intimate aspects of life without substantially disrupting broader
 215 social relationships.^[26-28]

216 Limitations:

217 The primary limitation of this study is the relatively small sample size of 120 patients,
 218 which may limit statistical power and reduce the generalizability of the findings.
 219 The findings highlight the need for routine screening of sexual dysfunction in patients with
 220 anxiety disorders, with particular attention to gender-specific patterns of dysfunction. An

221 integrated treatment approach addressing both anxiety symptoms and sexual health is
222 essential, along with regular assessment of quality of life outcomes.

223 **Conclusions:**

224 Sexual dysfunction is highly prevalent among patients with anxiety disorders and is associated
225 with a marked reduction in quality of life. Panic disorder shows the greatest vulnerability, with
226 sexual desire being the most commonly affected domain. Clear gender differences were
227 observed, particularly higher satisfaction dysfunction among males. The strong negative
228 association between sexual dysfunction severity and physical quality of life underscores the
229 need for routine screening and integrated, gender-sensitive management. Addressing sexual
230 health alongside anxiety symptoms is essential for improving overall well-being and clinical
231 outcomes in this population.

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235 **Conflict of Interest: Nil**

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