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RESEARCH ARTICLE

SEXUAL DYSFUNCTION IN ADULT PATIENT WITH ANXIETY DISORDER AND THEIR QUALITY OF LIFE IN A TERTIARY CARE HOSPITAL OF TRIPURA: A CROSS-SECTIONAL STUDY

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Abstract

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

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

Methods:A descriptive cross-sectional study was conducted at Department of Psychiatry, Agartala Government Medical College and GB Pant Hospital over a 24 Months. A total of 120 consecutive patients aged 18—60 years with ICD-10 confirmed anxiety disorders were assessed after fulfilling inclusion andexclusion criteria. Arizona Sexual Experience (ASEX) scale and the World Health Organization Quality of Life-Brief (WHOQOL-BREF) questionnaire tools were applied.

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

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

Introduction:-

Anxiety represents an emotion characterized by feelings of tension, apprehension, and autonomic hyperactivity [1]. It manifests across multiple anxiety disorder subtypes, including Generalized Anxiety Disorder (GAD), Panic Disorder, Agoraphobia, Social Phobia, and Specific Phobia [1, 2]. The World Health Organization estimates that anxiety disorders affect approximately 449 million people globally, representing a significant public health burden with substantial economic and social costs [3]. In India, the National Mental Health Survey 2016 documented the considerable prevalence of mental morbidity, yet anxiety disorders remain inadequately recognized in primary care settings [4].Sexual dysfunction (SD) in anxiety patients represents a significant yet neglected clinical complication. Despite chronic nature and high prevalence of anxiety disorders, a critical gap exists in clinical recognition and management of associated sexual dysfunction [5]. The relationship between anxiety and sexual functioning has been documented extensively, yet sexual dysfunction remains poorly recognized and underreported by both patients and healthcare providers [6]. This communication barrier stems from cultural taboos, insufficient provider training, and patient embarrassment in discussing sexual concerns.

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

Materials and Methods:-

Study Design and Setting:-

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

Study Population and Sampling:-

Inclusion criteria:

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

Exclusion criteria:

Patients who were unwilling to participate, had a history of substance use disorder, or had co-morbid psychiatric illnesses such as depression or psychosis were excluded. Individuals with concurrent systemic illnesses including endocrine, cardiovascular, or neurological disorders were also excluded. Patients with a history of any psychiatric disorder preceding the onset of anxiety disorder, as well as those with previous use of antidepressants or other psychotropic medications (to eliminate medication-related sexual dysfunction), were not included.

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

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

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

Results:-

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

Table 1: Distribution of study participants according to ICD based classification (number =120)

Diagnosis based on ICD 10	Frequency	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

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

Overall prevalence of sexual dysfunction:
Sexual dysfunction was observed in 65.8% of patients with anxiety disorders. The highest prevalence was seen in panic disorder (73.3%), followed by agoraphobia (68.4%), social phobia (66.7%), and generalized anxiety disorder (64.1%), while mixed anxiety disorders showed the lowest prevalence (50%). The particularly high rate in panic disorder likely reflects pronounced autonomic hyper arousal that interferes with normal sexual response, whereas the

lower prevalence in mixed anxiety disorders may be related to comparatively less severe or fluctuating anxiety symptoms.

Table: 2 Distribution of study participants with sexual dysfunction based on ASEX domain dysfunction (number =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

Sexual drive dysfunction was the most frequently affected domain overall, present in 26.7% (n=32) of the total sample. This was followed by satisfaction dysfunction (13.3%, n=16), arousal dysfunction (18.3%, n=22), orgasm dysfunction (10.8%, n=13), and erection/lubrication dysfunction (9.2%, n=11). Gender-specific analysis revealed interesting patterns. Males demonstrated higher dysfunction in sexual drive (27.4% vs. 25.5%), erection/lubrication (11.0% vs. 6.4%), orgasm (11.0% vs. 10.6%), and satisfaction (17.8% vs. 6.4%) domains. Females showed higher arousal dysfunction (19.1% vs. 17.8%), although most differences were not statistically significant. The satisfaction dysfunction difference approached statistical significance (p=0.072), with males reporting greater dissatisfaction with sexual experiences.

Table:3 Gender-Specific ASEX Score Comparisons:

ASEX Domain	Females (n=47) Mean±SD	Males (n=73) Mean±SD	Total Mean±SD	p-value (t-test)
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

*The satisfaction domain showed statistically significant higher dysfunction in males (3.09±1.59) compared to females (2.42±1.37; p=0.019). This finding challenges the prevailing assumption that women experience greater

sexual satisfaction impairment in anxiety disorders and highlights the need for gender-sensitive clinical approaches in male anxiety patients.

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

Table: 4 Correlation of ASEX domains with QoL Domains

WHOQOL-BREF Domain	No SD (n=41) Mean±SD	With SD (n=79) Mean±SD	p-value (t-test)
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*

The physical domain showed the most substantial difference (69.64±16.67 vs. 39.93±12.14; difference of 29.71 points; $p<0.001$), indicating that sexual dysfunction is associated with significantly reduced perception of physical well-being, energy, and capacity for activities. The psychological domain also showed marked impairment (63.25±14.83 vs. 42.55±13.47; difference of 20.70 points; $p<0.001$), reflecting negative psychological consequences of sexual dysfunction including reduced self-esteem, concentration difficulties, and dysphonic mood. Total QoL scores were markedly lower in the sexual dysfunction group (42.69±10.54 vs. 59.88±11.22; $p<0.001$), representing a clinically meaningful difference of 17.19 points on the WHOQOL-BREF scale.

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

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

ASEX Domain	Physical R(p value)		Psychological R(p value)		Social R(p value)		Environmental R(p value)	
Sexual Drive	-0.811	0.000*	0.183	0.514	0.140	0.618	-0.553	0.032*
Arousal	-0.531	0.042*	0.367	0.179	0.122	0.665	-0.441	0.100
Erection/Lubrication	-0.074	0.794	-0.268	0.334	-0.200	0.474	0.222	0.426
Orgasm	-0.263	0.344	0.126	0.655	0.185	0.508	-0.048	0.864
Satisfaction	-0.201	0.473	0.002	0.993	-0.352	0.198	-0.089	0.752
ASEX Total	-0.914	0.000*	0.226	0.418	-0.033	0.906	-0.463	0.082

ASEX total scores showed strong negative correlation with the physical domain ($r=-0.914$, $p<0.001$), indicating that greater sexual dysfunction severity is associated with substantially lower physical quality of life. Sexual drive dysfunction demonstrated strong negative correlation with both physical domain ($r=-0.811$, $p<0.001$) and

environmental domain (r=−0.553, p=0.032), suggesting that reduced sexual desire is linked to decreased perception of physical capacity and environmental control. Notably, minimal correlation was observed between ASEX and social domain quality of life (r=−0.033, p=0.906), a finding requiring further investigation regarding the complex relationship between sexual dysfunction and social functioning in anxiety.

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

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

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

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

Discussion:-

This study is the first from Eastern India to comprehensively examine sexual dysfunction and quality of life in patients with anxiety disorders. The overall prevalence of sexual dysfunction was 65.8%, comparable to international reports ranging from 50% to 73%.[23] Findings were consistent with earlier Indian data, including Kendurkar et al., who reported 64% prevalence in generalized anxiety disorder, closely matching the 64.1% observed in the present GAD sample. Panic disorder showed the highest prevalence (73.3%), likely related to autonomic hyperarousal, anticipatory anxiety, and avoidance of sexual activity associated with fear of panic attacks.[24-26]Males demonstrated significantly higher sexual satisfaction dysfunction than females, highlighting the need for focused assessment of sexual satisfaction in male anxiety patients. Female participants showed a slightly higher prevalence of arousal dysfunction, consistent with models suggesting greater cognitive and emotional modulation of female sexual response in anxiety disorders. The male predominance in the sample may reflect gender differences in healthcare-seeking behavior or cultural barriers limiting female reporting of sexual concerns.Patients with sexual dysfunction experienced a marked reduction in quality of life, particularly in the physical domain, with over a 40% decrease in WHOQOL-BREF scores. A strong negative correlation between ASEX scores and physical quality of life in GAD patients indicates a close link between sexual dysfunction severity and perceived physical well-being. In contrast, minimal association with the social domain suggests that sexual dysfunction may affect intimate aspects of life without substantially disrupting broader social relationships.[26-28]

Limitations:-

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

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

Conclusions:-

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

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Nil

Consents:

Ethical approval was taken from institutional ethical committee. Written informed consent was obtained from all of the patients.

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Nil

Conflict of Interest:-

Nil

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