



## A STUDY TO ASSESS DEPRESSION, ANXIETY AND ALCOHOL USE AMONG MEN WITH ERECTILE DYSFUNCTION AND PREMATURE EJACULATION

### Psychiatry

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### ABSTRACT

**Objectives-** To assess prevalence of and compare sociodemographic and clinical variables of depression, anxiety and alcohol use amongst men with (ED) Erectile dysfunction, (PME) Premature ejaculation and both. **Methods-** This cross-sectional study was conducted at B.J Medical college and civil hospital, Ahmedabad. Sample of 100 males having either ED or PME or both, were taken from the Government civil hospital, Ahmedabad. Patient Health Questionnaire-9 (PHQ-9), Generalized Anxiety Disorder Scale-7 (GAD-7), and Alcohol Use Disorders Identification Test (AUDIT) were primary screening tools and Diagnostic and Statistical Manual-5(DSM-5) was primary diagnostic tool. SPSS Statistics, version 20 was used. Chi-square test and Fisher's exact test were used to find significant statistical differences. **Results-** Most men among all three groups of disorders were > 30 years, married, uneducated, worked in jobs that were below the clerical level and with monthly income <19,758/-. Overall, depression was found in 37 out of 100(37%), anxiety in 20 out of 100(20%) and alcohol use in 13 out of 100(13%) men. Anxiety was more prevalent (statistically significant) in married males in PME and Mixed groups, and in men working above clerical work in ED and PME groups. **Conclusion-** Most men with ED, PME or both were >30 years old, married, uneducated, worked in jobs that were below clerical level and with monthly income <19,758/-. Both depression and anxiety were more prevalent in men with psychosexual disorders, which was higher than national prevalence, while alcohol use was found to be less than national prevalence.

### KEYWORDS

Depression, Anxiety, Alcohol Use, Erectile Dysfunction, Premature ejaculation

### INTRODUCTION:

The two most common kinds of sexual dysfunction in males are premature ejaculation (PME) and erectile dysfunction (ED).<sup>[1]</sup> Premature ejaculation, in general, refers to chronic or repeated ejaculation that occurs before, during, or immediately after penetration and causes discomfort to the patient and his partner. Premature ejaculation can have a medical reason, although the majority of instances appear to be caused by unknown physiological or psychological variables. Premature ejaculation is not diagnosed just by occasional quick ejaculations, especially during first sexual experiences.<sup>[2]</sup>

The inability to acquire and sustain an erection adequate for satisfactory sexual performance is called ED. It is believed that up to 52% of men worldwide are affected, with 5–20% experiencing moderate to severe ED symptoms. PME is characterised by ejaculation with limited sexual excitement before or shortly after penetration and minimal voluntary control over. It is a very prevalent illness, with incidence rates as high as 30% reported in epidemiological studies. Both diseases may be extremely burdensome, resulting in long-term negative impacts on self-esteem as well as significant interpersonal and intimacy issues.<sup>[3]</sup> As the severity of the ED increased, so did the prevalence and severity of anxiety and depression.<sup>[4]</sup> The normal physiological systems involved in penile erection might be disrupted for a number of reasons. In this context, the genesis of the ED has been linked to psychological, hormonal, neurogenic, and vascular

pathologies; medicines; iatrogenic causes; as well as systemic and chronic disorders. Diabetes, chronic renal failure, chronic obstructive pulmonary disease, arthrosis, connective tissue disorders, chronic hepatitis and other chronic infections, hypertension, multiple sclerosis, and Behçet's illness are all examples of chronic diseases.<sup>[5]</sup> A significant relationship has been found between self-assessed PME, and Depression.<sup>[6]</sup> Anxiety, sadness, lack of sexual confidence, poor self-esteem, diminished quality of life, sexual dissatisfaction, and interpersonal issues are common among men with PME and ED. Most men, however, do not seek treatment for it for a variety of reasons. Many doctors are ignorant of the distressing nature of it and may be hesitant to inquire about a patient's sexual function.<sup>[7]</sup>

With this background, our study was conducted with the aim of assessing the prevalence of and comparing sociodemographic and clinical variables of depression, anxiety, and alcohol use amongst men with PME and ED.

### MATERIALS AND METHODS-

#### Ethical approval and Informed Consent -

The study was approved by The institutional Ethics Committee. The participants were assured about the confidentiality of the data and that the information collected would be used strictly for research purposes only. Participants were included in the study after obtaining written informed consent.

**Study Design And Settings-**

This cross-sectional study was conducted in a psychosexual disorders clinic in the Psychiatry department of a government civil hospital in Ahmedabad from January,2022 to June,2022.

**Sample Selection-**

The sample size of the study was 100 male patients in psychosexual disorders clinic in the psychiatry department of government civil hospital, ahmedabad diagnosed with erectile dysfunction and/or premature ejaculation as per DSM-V.

**Inclusion Criteria:**

Consenting male patients, diagnosed with erectile dysfunction and/or premature ejaculation as per DSM-V those who were willing to participate in the study.

**Exclusion Criteria:**

Participants unwilling to participate in study and those with comorbidities which can cause erectile dysfunction and premature ejaculation, e.g., diabetes, hypertension were excluded.

**Instruments-**

After obtaining sociodemographic and clinical details, all the patients were assessed using:-

1. Patient Health Questionnaire 9 (PHQ-9)
2. Generalised Anxiety Disorder Assessment (GAD-7)
3. The Alcohol Use Disorder Identification Test (AUDIT)

And later diagnosed by Diagnostic and Statistical Manual-5(DSM-5).

1. Patient Health Questionnaire 9 (PHQ-9):

The PHQ-9 is a 9-item self-reported questionnaire used in clinical practice for screening, diagnosing, monitoring, and measuring the severity of depression. Based on DSM-IV criteria as "0" (not at all) to "3" (nearly every day). The sensitivity is 88% and the specificity is 88% for major depression. Cut-off scores for mild depression range from 5 to 9, moderate depression ranges from 10 to 14, moderately

severe depression ranges from 15 to 19, and severe depression ranges from 20 to 27<sup>[12]</sup>.

2. Generalised Anxiety Disorder Assessment (GAD-7):

The GAD-7 originates from Spitzer RL, Kroenke K, Williams JB, et al; A brief measure for assessing generalized anxiety disorder: the GAD-7. The GAD-7 score is calculated by assigning scores of 0, 1, 2, and 3, to the response categories of "not at all", "several days", "more than half the days", and "nearly every day", respectively, and adding together the scores for the seven questions.<sup>[14]</sup>

3. The Alcohol Use Disorder Identification Test (AUDIT):

The Interview Version is a ten-item self-reported questionnaire approved by the World Health Organisation to screen patients for hazardous (risky) and harmful alcohol consumption.<sup>[16]</sup> It was developed from a WHO multi-country collaborative study. Using different cut-off points, it can also screen for alcohol use disorder (DSM-5) and alcohol dependence. It has become a widely used instrument and has been translated into approximately fifty languages. Using Cronbach's alpha, the internal reliability of the AUDIT was estimated to be 0.77. The internal consistency coefficient of the AUDIT was calculated to be 0.78 by the split-half method.<sup>[16]</sup> Specificity is 89% and sensitivity is 99%.

DSM-5 : The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), is the 2013 update to the Diagnostic and Statistical Manual of Mental Disorders, the taxonomic and diagnostic tool published by the American Psychiatric Association (APA).

**Statistical Analysis-**

Statistical analysis was performed using IBM SPSS Statistics for Windows, version 20; Armonk, NY, USA.<sup>[17]</sup> The chi-square test and Fisher's exact test were used for finding significant statistical differences.

**RESULTS:-**

**Table-1 Socio-demographic And Clinical Parameters Of Men With ED, PME & Mixed type.**

Sociodemographic parameters		Group A- Erectile dysfunction (n=48)	Group B- Premature Ejaculation (n =24)	Group C- Mixed(Erectile dysfunction + Premature ejaculation) (n=28).	Total (n=100)	Chi- square	P- value
Age	< 30 years	17 (35.42%)	9 (37.5%)	6 (21.43%)	32 (32%)	2.029	0.362
	> 30 years	31 (64.58%)	15 (62.5%)	22 (78.57%)	68 (68%)		
Gender	Male	48 (100%)	24 (100%)	28 (100%)	100 (100%)	0	1
	Female	0 (0%)	0 (0%)	0 (0%)	0 (0%)		
Marital status	Married	29 (60.41%)	15 (62.5%)	27 (96.42%)	71 (71%)	12.246	0.002*
	Unmarried	19 (39.58%)	9 (37.5%)	1 (3.57%)	29 (29%)		
Education	High school and above	9 (18.75%)	9 (37.5%)	8 (28.57%)	26 (26%)	3.057	0.216
	Below high school	39 (81.25%)	15 (62.5%)	20 (71.42%)	74 (74%)		
Occupation	Clerical work and above	6 (12.5%)	7 (29.16%)	4 (14.28%)	17 (17%)	3.353	0.187
	Below clerical work	42 (87.5%)	17 (70.83%)	24 (85.71%)	83 (83%)		
Monthly Income	>19,758	12 (25%)	9 (37.5%)	7 (25%)	28 (28%)	1.414	0.493
	<19,758	36 (75%)	15 (62.5%)	21 (75%)	72 (72%)		
current substance use other than alcohol.	present	24 (50%)	13 (54.16%)	19 (67.85%)	56 (56%)	2.332	0.311
	Absent	24 (50%)	11 (45.83%)	9 (32.14%)	44 (44%)		
Personal life stressor	present	14 (29.16%)	1 (4.16%)	7 (25%)	22 (22%)	6.031	0.055
	Absent	34 (70.83%)	23 (95.83%)	21 (75%)	78 (78%)		

(\*p-value<0.05 is statistically significant)

**Table-2 Depression, Anxiety, And Alcohol Use Among Men With ED, PME, And Mixed Type.**

Depression, anxiety, and alcohol use among men with ED, PME, or both.		Group A- Erectile dysfunction (n=48).	Group B- Premature Ejaculation (n =24)	Group C- ED & PME- Mixed (n=28)	Total (n=100)	Chi square	P- Value
Depression (PHQ-9 scale)	Present	19 (39.58%)	9 (37.5%)	9(32.14%)	37 (37%)	0.124	0.939
	Absent	29 (60.42%)	15 (62.5%)	19 (67.86%)	63 (63%)		
Anxiety (GAD-7 scale)	Present	10 (20.83%)	4 (16.67%)	6 (21.42%)	20 (20%)	0.871	0.646
	Absent	38 (79.17%)	20 (83.33%)	22 (78.58%)	80 (80%)		
Alcoholism (AUDIT scale)	Present	8 (16.67%)	0 (0%)	5 (17.86%)	13 (13%)	4.741	0.093
	Absent	40 (83.33%)	24 (100%)	23(82.14%)	87 (87%)		

(\*p-value<0.05 is statistically significant) ED-Erectile Dysfunction, PME-Premature Ejaculation

**Table-3 Comparison Of Sociodemographic And Clinical Variables With Depression Amongst Men With ED, PME & Mixed Type.**

Sociodemographic and clinical parameters, cut off score <4 for Patient health questionnaire (PHQ-9) scale.		Group A- Erectile dysfunction (n=48)		Group B- Premature ejaculation (n=24)		Group C- Mixed(ED and PME) (n=28)		Total (n=100)	Chi-square	P- Value
		Depression present (n=19)	Depression absent (n=29)	Depression present (n=9)	Depression absent (n=15)	Depression Present (n=9)	Depression absent (n=19)			
Age	<30	5 (26.31%)	11(37.93%)	4 (44.45%)	6 (40%)	2 (22.22%)	4 (21.05%)	32 (32%)	3.274	0.6578
	>30	14(73.69%)	18(62.06%)	5 (55.55%)	9 (60%)	7 (77.78%)	15(78.95%)	68 (68%)		
Marital status	Married	10(52.63%)	16(55.17%)	5 (55.55%)	10(66.66%)	8 (88.88%)	17(89.47%)	66 (66%)	10.235	0.068
	Unmarried	9 (47.36%)	13(44.82%)	4 (44.44%)	5 (33.33%)	2 (11.11%)	4 (21.52%)	34 (34%)		
Education	High school and above	2 (10.52%)	7 (24.13%)	3 (33.33%)	6 (40%)	1 (11.11%)	6 (31.57%)	25 (25%)	5.632	0.343
	High school and below	17(89.48%)	22(75.86%)	6 (66.66%)	9 (60%)	8 (88.88%)	13(68.42%)	75 (75%)		
Occupation	clerical work and above	2 (10.52%)	4 (13.79%)	2 (22.22%)	5 (33.33%)	1 (11.11%)	4 (21.05%)	18 (18%)	3.974	0.553
	Below clerical work	17(89.48%)	25(86.20%)	7 (77.77%)	10(66.66%)	8 (88.88%)	15(78.94%)	82 (82%)		
Monthly income	>19758	4 (21.05%)	8 (27.58%)	4 (44.44%)	5 (33.33%)	2 (22.22%)	6 (31.57%)	30 (30%)	3.499	0.623
	<19758	15(78.94%)	21(72.41%)	5 (55.56%)	10(66.66%)	7 (77.77%)	12(68.42%)	70 (70%)		
Current substance use other than alcohol	Present	11(57.89%)	14(48.27%)	6 (66.66%)	7 (46.66%)	8 (88.88%)	10(52.63%)	56 (56%)	6.236	0.283
	Absent	8(42.11%)	16(51.72%)	3 (33.34%)	8 (53.33%)	1 (11.11%)	9 (47.36%)	44 (44%)		
Personal life stressor	Present	10(52.64%)	6 (20.68%)	1 (11.11%)	1 (6.66%)	1 (11.11%)	6 (31.57%)	24 (24%)	11.643	0.053
	Absent	9 (47.36%)	24(79.31%)	8 (88.89%)	14(93.33%)	8 (88.89%)	13(68.42%)	76 (76%)		
Medical comorbidity	Present	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0	1
	Absent	19 (100%)	29 (100%)	9 (100%)	15 (100%)	9 (100%)	19 (100%)	100 (100%)		
Psychiatric comorbidity	Present	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (5.26%)	1 (1%)	4.306	0.506
	Absent	19 (100%)	29 (100%)	9 (100%)	15 (100%)	9 (100%)	18(94.73%)	99 (99%)		

(\*p-value<0.05 is statistically significant)ED-Erectile Dysfunction, PME-Premature Ejaculation

**Table-4 Comparison Of Sociodemographic And Clinical Variables With Anxiety Amongst Men With ED, PME And Mixed Type.**

Sociodemographic and clinical parameters, cut off score <5 for Generalized Anxiety Disorder Assessment (GAD-7) scale.		Group A- Erectile dysfunction (n=48)		Group B- Premature ejaculation (n=24)		Group C- Mixed (ED and PME) (n=28)		Total (n=100)	Chi square	P- Value
		Anxiety Present (n=10)	Anxiety Absent (n=38)	Anxiety present (n=4)	Anxiety Absent (n=20)	Anxiety Present (n=6)	Anxiety Absent (n=22)			
Age	<30	5 (50%)	11 (28.94%)	1 (25%)	8 (40%)	1 (16.66%)	6 (27.27%)	32 (32%)	3.204	0.668
	>30	5 (50%)	27 (71.05%)	3 (75%)	12 (60%)	5 (83.33%)	16 (72.72%)	68 (68%)		
Marital status	Married	3 (30%)	19 (50%)	3 (75%)	12 (60%)	5 (83.33%)	21 (95.45%)	63 (63%)	19.756	0.002*
	Unmarried	7 (70%)	19 (50%)	1 (25%)	8 (40%)	1 (16.66%)	1 (4.54%)	37 (37%)		
Education	High school and above	1 (10%)	9 (23.68%)	3 (75%)	7 (35%)	2 (33.33%)	6 (27.27%)	28 (28%)	6.918	0.226
	High school and below	9 (90%)	29 (76.31%)	1 (25%)	13 (65%)	4 (66.66%)	16 (72.72%)	72 (72%)		
Occupation	clerical work and above	9 (90%)	6 (15.78%)	3 (75%)	5 (25%)	2 (33.33%)	2 (9.09%)	27 (27%)	30.978	0.000*
	Below clerical work	1 (10%)	32 (84.21%)	1 (25%)	15 (75%)	4 (66.66%)	20 (90.90%)	73 (73%)		
Monthly income	>19,758	3 (30%)	8 (21.05%)	1 (25%)	9 (45%)	2 (33.33%)	8 (36.36%)	30 (30%)	3.606	0.607
	<19758	7 (70%)	30 (78.94%)	3 (75%)	11 (55%)	4 (66.66%)	15 (63.64%)	70 (70%)		
Current substance use other than alcohol	Present	4 (40%)	20 (52.63%)	1 (25%)	11 (55%)	3 (50%)	7 (31.81%)	46 (46%)	4	0.549
	Absent	6 (60%)	18 (47.37%)	3 (75%)	9 (45%)	3 (50%)	15 (68.18%)	54 (54%)		
Personal life stressor	Present	3 (30%)	13 (34.21%)	1 (25%)	1 (5%)	2 (33.34%)	5 (22.72%)	25 (25%)	6.402	0.269
	Absent	7 (70%)	25 (65.78%)	3 (75%)	19 (95%)	4 (66.66%)	17 (77.27%)	75 (75%)		
Medical comorbidity	Present	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0	1
	Absent	10 (100%)	36 (100%)	4 (100%)	20 (100%)	6 (100%)	24 (100%)	100 (100%)		

Psychiatric comorbidity	Present	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (4.76%)	1 (1%)	3.282	0.656
	Absent	10 (100%)	38 (100%)	4 (100%)	20 (100%)	6 (100%)	21 (95.23%)	99 (99%)		

(\*p-value<0.05 is statistically significant)ED-Erectile Dysfunction, PME-Premature Ejaculation

**Table-5 Comparison Of Sociodemographic And Clinical Variables With Alcohol Use Amongst Men With ED, PME And Mixed Type.**

Sociodemographic and clinical parameters, cut off score <8 for Alcohol Use Disorders Identification Test (AUDIT) scale.		Group A- Erectile dysfunction (n=48)		Group B- Premature ejaculation (n=24)		Group C- Mixed(ED and PME) (n=28)		Total (n=100)	Chi-square	P-Value
		Alcohol Present (n=8)	Alcohol absent (n=40)	Alcohol present (n=0)	Alcohol absent (n=24)	Alcohol Present (n=5)	Alcohol absent (n=23)			
Age	<30	2 (25%)	15 (37.5%)	0 (0%)	11 (45.83%)	1 (20%)	5 (21.73%)	34 (34%)	3.982	0.552
	>30	6 (75%)	25 (62.5%)	0 (0%)	13 (54.16%)	4 (80%)	18 (78.26%)	66 (66%)		
Marital status	Married	6 (75%)	21 (52.5%)	0 (0%)	15 (62.5%)	4 (80%)	22 (95.65%)	68 (68%)	13.343	0.062
	Unmarried	2 (25%)	19 (47.5%)	0 (0%)	9 (37.5%)	1 (20%)	1 (4.34%)	32 (32%)		
Education	High school and above	2 (25%)	7 (17.5%)	0 (0%)	9 (37.5%)	1 (20%)	8 (34.78%)	27 (27%)	4.021	0.546
	High school and below	6 (75%)	33 (82.5%)	0 (0%)	15 (62.5%)	4 (80%)	15 (65.21%)	73 (73%)		
Occupation	Clerical work and above	2 (25%)	4 (10%)	0 (0%)	7 (29.16%)	1 (20%)	4 (17.39%)	18 (18%)	4.047	0.542
	Below, clerical work	6 (75%)	36 (90%)	0 (0%)	17 (70.83%)	4 (80%)	19 (82.60%)	82 (82%)		
Monthly income	>19,758	1 (12.5%)	11 (27.5%)	0 (0%)	10 (41.66%)	1 (20%)	7 (30.43%)	30 (30%)	3.081	0.687
	<19,758	7 (87.5%)	29 (72.5%)	0 (0%)	14 (58.33%)	4 (80%)	16 (69.56%)	70 (70%)		
Current substance use other than alcohol	present	5 (62.5%)	20 (50%)	0 (0%)	12 (50%)	4 (80%)	14 (60.86%)	55 (55%)	2.411	0.789
	Absent	3 (37.5%)	20 (50%)	0 (0%)	12 (50%)	1 (20%)	9 (39.13%)	45 (45%)		
Personal life stressor	present	3 (37.5%)	12 (30%)	0 (0%)	1 (4.16%)	2 (40%)	5 (21.73%)	23 (23%)	7.7	0.173
	Absent	5 (62.5%)	28 (70%)	0 (0%)	23 (95.83%)	3 (60%)	18 (78.26%)	77 (77%)		
Medical comorbidity	present	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0	1
	Absent	8 (100%)	40 (100%)	0 (0%)	24 (100%)	5 (100%)	23 (100%)	100 (100%)		
Psychiatric comorbidity	present	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)	1(4.34%)	1 (1%)	2.99	0.701
	Absent	8 (100%)	37 (100%)	0 (0%)	24 (100%)	5 (100%)	22 (95.65 %)	99 (99%)		

The study population was divided into 3 main groups. Group-A was an ED group. Group-B was the PME group, and Group-C was the mixed type (ED and PME both) group. We excluded people with medical comorbidities like hypertension , diabetes as they can lead to sexual dysfunction.<sup>[20]</sup>

In sociodemographic and clinical variables, according to **Table-I**, in our study we selected all males. According to the DSM-V<sup>[18]</sup>, there are various kinds of sexual dysfunction. But we took a sample population of ED and PME, which are disorders exclusively seen in the male population.

As per the table, 68 out of 100 males(68%) were aged above 30 years, compared to 32 out of 100 males(32%) ,71 out of 100 males(71%) were married, compared to 29 out of 100 males(29%) who were unmarried males. There were 74 out of 100 males (74%) with below high school level education compared to 26 out of 100 males(26%) above high school level.

Only 17 out of 100 males(17%) were doing clerical work or above. There were 56 out of 100 males(56%), who had current substance use other than alcohol. 22 out of 100 males(22%) of people reported of a personal life stressor, while 78 out of 100 males(78%) denied for the same. There was no statistically significant difference in terms of age, education, occupation, and monthly income in all groups, currently using substance other than alcohol and personal life stressor, but in terms of marital status, a statistically significant

difference was found with chi square value of 12.246 and p value of 0.002. Only 1 out of 100 males (1%) had previous psychiatric comorbidity and was on medication for bipolar disorder, which was currently under remission.

**As per Table-2**

Overall out of 100 males, depression was found in 37% of men (screened using PHQ-9 scale and diagnosed as “major depressive disorder” as per DSM-5 criteria), Anxiety was found in 20% of people (screened using GAD-7 scale and diagnosed as “generalized anxiety disorder” as per DSM-5 criteria), and alcohol use was found in 13% of people (screened using the AUDIT scale and diagnosed as “alcohol use disorder” as per DSM-5 criteria).

Depression was found in 19 out of 48 males(39.58%) with exclusive ED, 9 out of 24 males(37.5%) with exclusive PME and 9 out of 28 males(32.14%) with Mixed(ED+PME) Anxiety was found in 10 out of 48 males(20.83%) with exclusive ED, 4 out of 24 males(16.67%) with exclusive PME and 6 out of 28 males(21.42%) with Mixed(ED+PME) Alcoholism was found in 8 out of 48 males(16.66%) with exclusive ED, none of the males with exclusive PME and 5 out of 28 males(17.85%) with Mixed(ED+PME)

While comparing sociodemographic and clinical variables with

depression, according to **Table-3**,

In Group-A, 14 out of 19 males with exclusive ED along with depression (73.68%) vs  
 In Group-B, 5 out of 9 males with exclusive PME along with depression (55.55%) vs  
 In Group-C, 7 out of 9 males with Mixed(ED+PME) along with depression (77.78%) were >30 years old.  
 In Group A, 10 out of 19 males with exclusive ED along with Depression(52.63%)vs  
 In Group B, 5 out of 9 males with exclusive PME along with Depression(55.55%)vs  
 In Group C 8 out of 9 males with Mixed(ED+PME) along with Depression(88.88%) were married.  
 In Group A, 17 out of 19 males with exclusive ED along with Depression(89.48%)vs  
 In Group-B, 6 out of 9 males with exclusive PME along with Depression(66.66%)vs  
 In Group-C, 8 out of 9 males with Mixed(ED+PME) along with Depression(88.88%) had education below high school.  
 In Group A, 17 out of 19 males with exclusive ED along with Depression(89.48%)vs  
 In Group B, 7 out of 9 males with exclusive PME along with Depression(77.77%) vs  
 In Group C, 8 out of 9 males with Mixed(ED+PME) along with Depression(88.88%) worked below clerical level.  
 In Group A, 15 out of 19 males with exclusive ED along with Depression(78.94%)vs  
 In Group B, 5 out of 9 males with exclusive PME along with Depression(55.56%)vs  
 In Group C, 7 out of 9 males with Mixed(ED+PME) along with Depression(77.77%) earned <19758/-.  
 In Group A, 11 out of 19 males with exclusive ED along with Depression(57.89%)vs  
 In Group B, 6 out of 9 males with exclusive PME along with Depression(66.66%)vs  
 In Group C, 8 out of 9 males with Mixed(ED+PME) along with Depression(88.88%) abused substance other than alcohol.  
 In Group A, 10 out of 19 males with exclusive ED along with Depression(52.64%) reported a personal life stressor, vs  
 In Group B, 8 out of 9 males with exclusive PME along with Depression(88.89%) denied for any personal life stressor, vs  
 In Group C, 8 out of 9 males with Mixed(ED+PME) along with Depression(88.89%) denied any personal life stressor.

According to **Table-4**, which compares sociodemographic and clinical variables with anxiety,

In Group A, 5 out of 10 males with exclusive ED along with Anxiety(50%)vs  
 In Group B, 3 out of 4 males with exclusive PME along with Anxiety(75%)vs  
 In Group C, 5 out of 6 males with Mixed (ED+PME) along with Anxiety(83.33%) were > 30 years old.  
 In Group A, 7 out of 10 males with exclusive ED along with Anxiety(70%) were unmarried, vs  
 In Group B, 3 out of 4 males with exclusive PME along with Anxiety(75%)vs  
 In Group C, 5 out of 6 males with Mixed (ED+PME) along with Anxiety(83.33%) were married. A statistically significant difference was found with a chi square value of 19.756 and a p value of 0.002.  
 In Group A, 9 out of 10 males with exclusive ED along with Anxiety(90%) had educational level below high school, vs  
 In Group B, 3 out of 4 males with exclusive PME along with Anxiety(75%) had educational level above high school, vs  
 In Group C, 4 out of 6 males with Mixed (ED+PME) along with Anxiety(83.33%) had educational level below high school.  
 In Group A, 9 out of 10 males with exclusive ED along with anxiety(90%) worked above clerical level, vs  
 In Group B, 3 out of 4 males with exclusive PME along with anxiety(75%) worked above clerical level, vs  
 In Group C, 4 out of 6 males with Mixed (ED+PME) along with Anxiety(66.66%) worked below clerical level. A statistically significant difference was found with a Chi-Square value of 30.978 and a P-Value of 0.000.  
 In Group A, 7 out of 10 males with exclusive ED along with anxiety(70%)vs  
 In Group B, 3 out of 4 males with exclusive PME along with anxiety(75%)vs

In Group C, 4 out of 6 males with Mixed (ED+PME) along with Anxiety(66.66%), earned <19758/-.

In Group A, 6 out of 10 males with exclusive ED along with anxiety(60%)vs  
 In Group B, 3 out of 4 males with exclusive PME along with anxiety(75%) vs  
 In Group C, 3 out of 6 males with Mixed (ED+PME) along with Anxiety(50%) denied abusing any substance apart from alcohol.  
 In Group A, 7 out of 10 males with ED along with anxiety(70%)vs  
 In Group B, 3 out of 4 males with PME along with anxiety(75%) vs  
 In Group C, 4 out of 6 males with Mixed (ED+PME) along with Anxiety(66.66%) denied any personal life stressor.

According to **Table-5**, no participants in Group-B(Exclusive PME) were found to be abusing alcohol.

In Group A, 6 out of 8 males with exclusive ED along with alcohol abuse(75%) vs  
 In Group C, 4 out of 5 males with Mixed(ED+PME) along with alcohol abuse(80%) were >30 years old.  
 In Group A, 6 out of 8 males with exclusive ED along with alcohol abuse(75%) vs  
 In Group C, 4 out of 5 males with Mixed(ED+PME) along with alcohol abuse(80%) were married.  
 In Group A, 6 out of 8 males with exclusive ED along with alcohol abuse(75%) vs  
 In Group C, 4 out of 5 males with Mixed(ED+PME) along with alcohol abuse(80%) had educational level below high school.  
 In Group A, 6 out of 8 males with exclusive ED along with alcohol abuse(75%) vs  
 In Group C, 4 out of 5 males with Mixed(ED+PME) along with alcohol abuse(80%) worked below clerical level.  
 In Group A, 7 out of 8 males with exclusive ED along with alcohol abuse(75%) vs  
 In Group C, 4 out of 5 males with Mixed(ED+PME) along with alcohol abuse(87.5%) earned <19,758/-  
 In Group A, 5 out of 8 males with ED along with alcohol abuse(62.5%) vs  
 In Group C, 4 out of 5 males with Mixed(ED+PME) along with alcohol abuse(80%) abused substances other than alcohol.  
 In Group A, 5 out of 8 males with exclusive ED along with alcohol abuse(62.5%) vs  
 In Group C, 3 out of 2 males with Mixed(ED+PME) along with alcohol abuse(60%) denied any personal life stressors.

## DISCUSSION:

As per **Table 1**, out of total participants with ED, PME and mixed type of disorders majority were found to be in older age groups, also according to Yongjiao et al., 41% of ED patients were identified as Chinese men older than 40 years.<sup>[4]</sup> In his study on Japanese subjects, Sugimori et al. found a mean age of 51.9 +/-6 years.<sup>[5]</sup> Majority of them were married. As per David L. Rowland et al., complaints by women with sexual problems suggest the need to inquire about sexual relationships to uncover undiagnosed PME.<sup>[7]</sup> Because the study was conducted in a government hospital in Ahmedabad that offers free treatment, the majority of the men were uneducated, worked in jobs that were below the clerical level and with monthly income below 19,758/-. Out of 56 out of 100 males(56%) of people using substance other than alcohol, 54 out of them showed tobacco use disorder in the form of chewing or smoking tobacco and 2 of men showed opioid use disorder. In India, tobacco use is highly prevalent and more socially acceptable<sup>[19]</sup>. Majority of the males with sexual disorders denied for any personal life stressor but out of those who reported the same, the most common stressors were financial crises and the loss of a job, followed by the death of a parent or child.

As per **Table 2**, Overall, Depression was found in 37 out of 100 males(37%) which was higher than the double of India's prevalence of depression.<sup>[21]</sup> Anxiety was found in 20 out of 100 males(20%), which was higher than the national prevalence of anxiety.<sup>[21]</sup>, while alcohol use was found in 13 out of 100 males(13%) which was lower than the national prevalence of alcohol use because of the alcohol ban in Gujarat state.<sup>[22]</sup>

As per **Table 3**, Amongst all 3 groups of psychosexual disorders along with depression majority were >30 years old, married, had education level below high school, worked below clerical level, earned <19758/-, abused substance other than alcohol and denied for any personal life

stressor. According to Iraklis Mourikis et al., comorbid depressive symptoms hinder sexual arousal and impair erectile function or vice versa.<sup>[3]</sup>

As per **Table 4**, Amongst all 3 groups of psychosexual disorders along with anxiety, majority were >30 years old, married (statistically significant difference was found with a chi square value of 19.756 and a p value of 0.002) (According to Ravi Philip rajkumar et al. marital discord was common among married men with PME).<sup>[2]</sup>, had education level below high school, worked above clerical level (statistically significant difference was found with a chi-Square value of 30.978 and a P-Value of 0.000), earned <19758/-, denied abusing any substance other than alcohol and denied for any personal life stressor. Men with pre-existing anxiety were more likely to experience performance anxiety and have PE without comorbid ED.<sup>[1]</sup>

As per **Table 5**, Amongst Group-A (Exclusive ED) and Group-C (Mixed ED+PME) along with alcohol abuse, majority were >30 years old, married, had education level below high school, worked below clerical level, earned <19758/-, abused substance other than alcohol and denied for any personal life stressor. According to Hiroki Sugimori et al. study on Japanese of the subjects, 49.3% of men with ED consumed alcohol >5 times a week. which was higher than in our study, because of demographic population differences and government policies on alcohol consumption.<sup>[5]</sup>

**Limitations of study:-** Because the study was conducted in a government hospital in Ahmedabad that offers free treatment, the majority of the men were uneducated, worked in jobs that were below the clerical level and with monthly income below 19,758/-, hence the results cannot be generalized.

**Implications of study:-** The prevalence of depression and anxiety being higher in patients with psychosexual disorders as compared to general population, proves the importance of emphasizing detailed psychosexual history evaluation, especially among men, which is often missed or not given enough importance.

## CONCLUSION-

Most men with ED, PME or both were >30 years old, married, uneducated, worked in jobs that were below clerical level and with monthly income <19,758/-. Both depression and anxiety were more prevalent in men with psychosexual disorders, which was higher than national prevalence, while alcohol use was found to be less than national prevalence. The study concludes the importance of taking detailed psychosexual history, while evaluating a patient with psychiatric disorders.

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## Conflicts Of Interest

There are no conflicts of interest.

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