COMPARISON OF DEPRESSION, ANXIETY, SELF-ESTEEM AND SEXUAL QUALITY OF LIFE IN MEN WITH ERECTILE DYSFUNCTION AND PREMATURE EJACULATION

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ABSTRACT

BACKGROUND

In men, sexual dysfunction can affect both physically and psychologically. Male erectile dysfunction (ED) and premature ejaculation (PME) are the two commonest sexual disorders in men. In Indian context, people often do not feel free to talk about their sexual problems and there is dearth of research.

Aims and objectives- To study and compare depression, anxiety, self-esteem, sexual quality of life in men with ED and PME.

MATERIALS AND METHODS

Single interview cross-sectional study done on 50 men with ED and 50 men with PME in the Psychiatric OPD of Municipal General Hospital. Demographic data collected using semi-structured proforma. Scales used were International Index for Sexual Dysfunction (IEED), Chinese Index of Sexual Function for Premature Ejaculation (CIPE), Hamilton Depression Rating Scale (HDRS), Hamilton Anxiety Rating Scale (HARS), Rosenberg Self-esteem Scale (SES) and Sexual Quality of Life- Men questionnaire (SQOL-M).

RESULT

Both ED and PME affect all the parameters like depression, anxiety, self-esteem and sexual quality of life and the difference was not statistically significant. The severity of ED and PME was not significantly correlated with depression, anxiety, self-esteem and sexual quality of life scores.

CONCLUSION

Though the erectile dysfunction and premature ejaculation are essentially two different disorders but the psychological impact of both are comparable and independent of severity of sexual dysfunction.

KEYWORDS

Sexual Dysfunction, Sexual Quality of Life, Depression, Anxiety.

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BACKGROUND

Sexuality is an important part of every human being's personality. For men, the sexual intercourse not only serves the purpose of procreation but sexual intimacy remains an important way of expressing love to one's partner. Like many other body functions, when sexual function goes along smoothly, it is taken for granted and given little thought. However, any problem in sexual function can have obvious and devastating psychological impact on men. In most societies, normal sexual function is considered a yardstick for measuring personal adequacy of Men. The man who does have sexual dysfunction is often embarrassed, confused or depressed, which he reflects poorly on his manhood.[1]

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Erectile disorder (ED) and premature ejaculation (PME) are the two commonest sexual dysfunctions in men. Out of which, PME is the most common and ED is the second one.[2] Generally, men hide their feelings and don't express much especially when it comes to their emotional or sexual problems. Hence, in men sexual dysfunction can affect them physically and emotionally as well. Men with ED can have anxiety, depression, low self-esteem, and decrease in quality of life.[3,4] So, men with ED tend to remain physically and emotionally withdrawn from their partners. Similarly, men having PME may suffer from anxiety, depression, low self-esteem, decreased quality of life.[5]

The studies till date focused on the assessment of depression, anxiety, self-esteem, quality of life in erectile disorder and premature ejaculation separately. In the Indian context, people do not feel free to talk about their sexual problems or express their perceived sexual inadequacies. Further, there is a dearth of research in this topic in Indian patients though culture bound sexual disorder like Dhat syndrome have been extensively researched. Through the current study, we intended to study and compare erectile dysfunction and premature ejaculation for depression, anxiety, self-esteem, sexual quality of life.

MATERIALS AND METHODS

It was a single interview cross-sectional study carried out in Department of Psychiatry of Municipal run tertiary care teaching hospital in suburban Mumbai between June 2014 and December 2014. Before commencing the study, institutional ethics committee approval was obtained. Samples were collected from Psychiatry Outpatient Department of the hospital; 50 patients each of male erectile disorder (ICD-10: F52.2) and premature ejaculation (ICD-10: F52.4) and sample selection was purposive. The patients diagnosed with either male erectile disorder (ICD-10: F52.2) or premature ejaculation (ICD-10: F52.4) between 18 to 60 years of age were included in study. The patients with both diagnoses (PME and ED) were not included and the two groups i.e. ED and PME were mutually exclusive. The patients suffering from any diagnosed psychiatric illness, serious medical or neurological disorder were excluded from the study. Patients with any substance use disorder or those taking any medicines which may affect sexual functioning were also excluded from the study. Written informed consent was obtained from each participant after they were provided information about the study and assured confidentiality. After taking the consent, participants were given an appointment for the interview as per their convenience. A specially designed case record was used to note the sociodemographic variables and responses of the patients.

Following Scales were used for the Study-

1. International index for erectile function (IIEF): It is a 15-item questionnaire. It addresses the relevant domains of male sexual function (that is, erectile function, orgasmic function, sexual desire, intercourse satisfaction, and overall satisfaction). A high degree of internal consistency (Cronbach's alpha range= 0.73 – 0.99) and test-retest reliability (r, range=0.64 – 0.84) across domains was demonstrated.[6]
2. Chinese Index of Sexual Function for Premature Ejaculation (CIPE): It consists of 10 questions which include sexual libido (Q1), frequencies of erection hard enough for sexual intercourse (Q2), frequencies of maintaining erection to complete sexual intercourse (Q3), IELT (Q4), difficulty in prolonging sexual intercourse (Q5), sexual satisfaction (Q6), partner's sexual satisfaction (Q7), frequency of partner reaching orgasm in sexual intercourse (Q8), confidence in completing sexual activity (Q9), frequency of feeling anxious, depressed or stressed in your sexual activity (Q10). Each questionnaire was responded to on a 5-point Likert-type scale. The overall Cronbach's alpha for the 9 items was 0.86. Test-retest reliability was good (0.82).[7]
3. Hamilton Depression Rating Scale (HDRS) is a multiple-choice questionnaire that clinicians may use to rate the severity of a patient's depression. The questionnaire rates the severity of symptoms observed in depression such as low mood, insomnia, agitation, anxiety and weight loss. The scale contains 17 variables and score is calculated by adding the score on each variable. Score less than 8 is normal, 8-13 is suggestive of mild depression, 14-18 of moderate depression, 19-22 of severe depression and more than 22 of very severe depression Internal consistency of HDRS is reported 0.83[8] and validity ranges from 0.65 to 0.90.[9]
4. Hamilton Rating Scale for Anxiety (HARS): It contains 14 symptom-oriented questions. Each of these symptoms is given a severity rating, from not present (Scored as 0) to very severe (scored as 4). Each question is scored 0-4. It has a very good internal consistency with Cronbach's alpha of 0.79-0.86. One week test-retest reliability value of 0.64 has been demonstrated.[10]
5. Rosenberg Self-Esteem Scale (RSES): While designed as a Guttman scale, the SES is now commonly scored as a Likert scale. The 10 items are answered on a four-point scale ranging from strongly agree to strongly disagree. The scale ranges from 0-30, with 30 indicating the highest score possible. Scores between 15 and 25 are within normal range; scores below 15 suggest low self-esteem. Internal consistency for the RSES range from 0.77 to 0.88 and criterion validity is 0.55.[11]
6. Sexual Quality of Life- Men (SQOL-M): An 11-item version of the SQOL-M was produced following factor analyses on men with either PME or ED. Excellent internal consistency was demonstrated, with a Cronbach's alpha of > or = 0.82 in all groups. The intraclass correlation coefficient was 0.77 for men with PE, and 0.79 for men with ED. Convergent validity was also good. To date, the instrument has been validated for use in men with ED and PE. Each item is rated on a 6-point Likert scale.[12]

Statistical Analysis

Data thus collected through case record form was entered in the spreadsheet in Microsoft Excel. Statistical Package for Social Sciences (SPSS, Inc., Chicago, Illinois) version 20.0 was used to do the statistical analysis of the available data. Descriptive statistics were used to describe the sample in terms of sociodemographic and clinical characteristics. Pearson chi-square test was used to compare qualitative variables and unpaired T test was used to compare quantitative variables between groups. The correlation of variables was done using Pearson correlation coefficient (Pearson's r). In this study, a level of significance (α) of < 0.05 (2-tailed) was taken to consider a result (group difference) statistically significant.

RESULTS

The mean age of subjects with ED and PE was 27.5 (± 3.26) and 29.02 (± 5.32) years respectively (p>0.05). Lower level of education was significantly (P=0.049*) associated with Premature ejaculation and semiskilled worker and married participants were more in number in both groups. (Table 1).

Parameters		Groups		df	P value
		PME (n-50)	ED (n-50)		
Education	Primary or less	12 (24%)	21 (42%)	2	0.049*
	Secondary	25 (50%)	39 (78%)		
	Graduate or more	03 (06%)	00 (00%)		
Occupation	Unskilled	03 (06%)	11 (22%)	2	0.055
	Semiskilled	37 (74%)	33 (66%)		
	Skilled	10 (20%)	06 (12%)		
Marital status	Single	11 (22%)	10 (20%)	1	0.500
	Married	39 (78%)	40 (80%)		

Table 1. Sociodemographic Profile of the Participants.

*P<0.05

The means of all parameters suggested that there was mild depression, anxiety, reduced self-esteem and impairment in quality of life, which was seen in both ED and PE. No significant difference was observed between patients of erectile disorder and premature ejaculation with respect to depression, self-esteem and sexual quality of life (Table 2).

Variable	Group	Mean	Std. Deviation	Df	P value
Age	PME	29.02	5.32	98	0.088
	ED	27.50	3.26		
HDRS score	PME	7.8	5.70		0.969
	ED	7.8	4.33		
HARS score	PME	7.7	2.91		0.757
	ED	7.5	4.08		
Self-esteem score	PME	15.8	2.92		0.911
	ED	15.9	2.40		
SQOL score	PME	20.1	4.2		0.381
	ED	21.0	6.45		

Table 2. Comparison of Various Mean Score between PME and ED

*P<0.05

The severity of the ED and PME was measured using International Index for Erectile Dysfunction (IEED) scores and Chinese Index of Sexual Function for Premature Ejaculation (CIPE) scores respectively. Mean erectile dysfunction index score for participants of ED was 12.62 (± 1.98) and mean premature erection index score for participants of PME was 14.18 (± 1.70). However, the correlation of the severity indexes (IEED & CIPE) didn't correlate with the scores of depression, anxiety, self-esteem and sexual quality of life in participants with ED and PME. (Table 3).

		HDRS	HARS	Self-Esteem	SQOL
IEED (ED)	Pearson's r	-0.097	-0.129	0.160	0.216
	Sig, (2-tailed)	0.502	0.372	0.268	0.131
CIPE (PME)	Pearson's r	0.107	-0.022	-0.080	-0.121
	Sig, (2-tailed)	0.461	0.880	0.579	0.401

Table 3. Correlation of Severity Index with other Variables in ED and PME

DISCUSSION

Sexual functioning is important to men as it is not only a tool for procreation but also a way of recreation to many sexually active men. In the popular as well as traditional belief, it is the sexual functioning of a man which is perceived by self as a manifestation of masculinity. And therefore, the turbulence or disturbance in the sexual functioning becomes a paramount reason of stress for most men suffering from the two commonest sexual functioning disorders, erectile dysfunction and premature ejaculation. The stress of inability to perform sexually can be devastating to men and can manifest as low self-esteem as well as affecting the quality of life adversely. It can also foster clinically significant anxiety and depressive features in these patients.

In men, epidemiologic studies have confirmed a strong correlation between sexual dysfunction and symptoms of depression.[13] Similarly, the depression in patients of premature ejaculation is also well documented.[14] Although few epidemiological studies on PME and ED have been conducted in India, the correlation with depression has not been thoroughly investigated. A number of studies have reported an association between PME and psychological or mental distress in the Asian population. Men with ED had high levels of depressive, somatic, and anxious symptoms and scored very high on measures of overall psychological distress.[15,16] PME is negatively associated with mental health and vitality among younger married men.[17] However, the correlation between PME and depression was unclear. In a study undertaken to determine the prevalence of PME and ED and to investigate associated characteristics on the Malaysian population, the authors found psychological distress, such as anxiety and depression, determined using the Hospital Anxiety and Depression Scale, contributed to PME.[18] In a study by Son et al, a significant relationship between self-assessed PME and depression was noted.[19]

Negative emotions, including anxiety or fear of failing to meet a partner's expectations, represent one of the most common causes of PME.[20-24] This has been explained by investigators as being caused by a sympathetic hyperactivity that reduces ejaculation control.[24-26] Others have pointed to the role of attention, suggesting that men who are anxious during sexual intercourse are worried about sexual performance or sexual adequacy, and that these thoughts may distract attention from the sexual sensations that precede orgasm and ejaculation.[22,25,27] Other investigators propose a significant role of free-floating anxiety in PME.[28]

Though the erectile dysfunction and premature ejaculation are two independent sexual disorders essentially but our study did not find any significant difference in anxiety and depression levels of these two disorders and the score on HDRS and HARS between erectile dysfunction and premature ejaculation was very much comparable. A meta-analysis was conducted by Burki et al[29] to explain the relationship between premature ejaculation and erectile dysfunction in terms of psychiatric illness; mediated by the functional imbalance of different neurotransmitters. It concluded that premature ejaculation causes erectile dysfunction in the same way as anxiety leads to depression and neurochemical changes in both the phenomenon are similar.[29] Anxiety is suggested to represent the final common pathway by which social, psychological, biological, and moral factors converge to impair sexual response. The neurobiological expression of anxiety is complex and it mainly involves a release of epinephrine and nor-epinephrine. Sympathetic dominance is also negatively involved in the arousal and orgasm phases and may interfere with sexual desire.[1, 2] One study found that the presence of anxiety symptoms in patients with arousal disorders was associated with poor treatment outcomes.[30]

In sociology and psychology, self-esteem reflects a person's overall subjective emotional evaluation of his or her own worth. It is a judgment of oneself as well as an attitude toward the self. Self-esteem encompasses beliefs and emotions such as triumph, despair, pride and shame.[31] Whereas sexual quality of life is defined as ''the individual's subjective evaluation of the positive and negative aspects of one's sexual relationship, and his/her subsequent affective response to this evaluation''.[32]

Men who experience ED can suffer the effects of low self-esteem and decrease in quality of life.[33] There are many studies showing ED has an effect on quality of life in men. Studies have shown that quality of life parameters, especially social relationship and psychological well-being are affected by ED.[34,35] Men with ED suffer deterioration in emotional well-being as noted in some studies.[36,37] Research of health related quality of life showed that ED is associated with physical function apart from emotional function, this study also found that emotional domains are more affected than physical domains in patients with ED.[37] The majority of studies showed that men who suffer ED will have poor quality of life especially in physical, mental and social domains.[38]

PME also has a marked effect on the quality of life in men.[23,35,39] Rowland et al showed that men with PME had significantly lower confidence and self-esteem compared with non-PME groups and men with PME rated their overall health related quality of life lower than men without PME.[40]

The current study did not find any difference in the self-esteem and sexual quality of life in patients of erectile dysfunction and premature ejaculation and the score was very much comparable.

Despite enough evidence suggesting the link between sexual dysfunction and psychopathology there is no correlation of severity of depression or anxiety to severity of sexual dysfunction as measured by IEED and CIPE in case of erectile dysfunction and premature ejaculation respectively. It is rather inferred at current study that the distress of sexual dysfunction is independent of the severity of the disorder but related to the presence of disturbance in sexual functioning only. Another evidence to support this hypothesis is that the self-esteem and the sexual quality of life is also independent of severity of sexual dysfunction measured by IEED for erectile dysfunction and CIPE for premature ejaculation.

CONCLUSION

Depression and anxiety is present in patients of erectile dysfunction and premature ejaculation at comparable levels. The sexual quality of life and self-esteem is affected at par in both the disorders. Though the sexual dysfunction is distressing and affecting sexual quality of life adversely, the impact of it is independent of the severity of dysfunction and rather determined by presence or absence of erectile dysfunction or premature ejaculation probably.

Limitations

1. The study had limitations such as a small sample size.
2. Also, all the study population came exclusively from urban or suburban regions.
3. However, it is a preliminary study and further studies exploring PE and ED in a larger clinical sample as well as within the general Indian population are warranted.

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