Research Article

Exploring psychosocial issues in patients of erectile dysfunction: A study in tertiary care setting

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ABSTRACT

Background: Interplay of factors - such as social, emotional and psychological - are required for a perfect positive health. The dimension of sexual health with a focus on erectile dysfunction (ED) is no exception to this. **Objectives:** To explore the various psychosocial issues in patients of ED and to find the correlation of psychological variables with different domains of ED. **Materials and Methods:** A cross-sectional study was undertaken among diagnosed male patients of ED in OPD settings. The data on sociodemographic information, psychological variables (using erectile performance anxiety scale, perceived stress scale and Rosenberg self-esteem scale), assessment of ED (using international index of erectile function [IIEF] scale), and psychosocial issues of the patients were directly obtained by focused interview with the patients. Data were analyzed using computer software SPSS (version 20.0). Pearson's Chi-square and Pearson's correlation tests were applied. **Results:** The study was conducted on 155 patients of ED, with the age range of 25-48 years, of these 105 (67.74%) were in the age group of 30-40 years. Variables such as type of employment, preoccupation in job, relationship issues with partners, and low self-esteem showed a significant association with different levels of erectile performance anxiety (P = 0.006, 0.002, 0.01, and 0.009, respectively). There was a statistically significant negative correlation between scores of various psychological variables and most of the domains of IIEF. **Conclusion:** There was a significant correlation between ED and psychological well-being of patients.

KEY WORDS: Erectile Dysfunction; Psychosocial Issues; Erectile Performance Anxiety; International Index of Erectile Function

INTRODUCTION

To achieve erections, reflexogenic and psychogenic phenomenon are necessary, and if any of these is deficit, it can cause impotence.[1] The sexual responses are both inhibited and excited by mind and body creating a unique and dynamic balance called the sexual tipping point.[2,3] Psychological impotence although widely prevalent, yet it is mostly misinterpreted as physical impotence primarily because skills of caretakers to elucidate such history are lacking. Physical factors coupled with social and emotional issues significantly influence psychological impotence and most of the times; it is curable.[4] Men with erectile dysfunction (ED) are at higher risk of experiencing significant physical and emotional dissatisfaction and a decrease in overall quality of life compared to healthy men.[5,6] As the person ages, loss in sexual arousability may also result from age-related neurochemical changes in the brain but is wrongly labeled as "psychogenic" ED, and the similar problem in young men is often labeled as organic.[7]

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In the current world, scenario of life complexities, ranging from career stress, relationship/financial issues, etc., coupled with waning social relations and alienation due to computerization, psychosocial morbidities have emerged as a major public health problem. These can nevertheless be a determinant of the health status of the individual, necessitating further research. Hence, this study was undertaken, to explore the various psychosocial issues in patients of ED and to study the correlation between various psychological variables and different domains of ED.

MATERIALS AND METHODS

The study population included the diagnosed cases of ED. The patients who approached the urology department of a super specialty hospital for consultation in the outpatient department in a 3-month period (October-December 2016) were chosen using consecutive sampling method. All the patients were managed as per standardized treatment protocol. The study was carried out after obtaining approval from the Institutional Ethical Committee. A written consent was obtained from the patient to signify their agreement. The medical officer initially administered the standardized research instruments followed by a focused interview to explore the experiences and emotional responses of the study subjects.

A collection of data: A pretested, semi-structured questionnaire divided into 3 parts was used. The questions pertaining to the scales used were translated in the local language, and the final version of the instrument was the result of all the iterations.[8]

Part A: Sociodemographic information, Part B: Scales to elicit ED and other psychological variables. Part C: To enlist the information on psychosocial issues of the patients obtained during focused interview.

The international index of erectile function (IIEF) was used to assess ED: The scale consists of 15-item questionnaire which addresses dysfunction in five domains, i.e., erectile function (EFT), orgasmic function (OTO), sexual desire, intercourse satisfaction, and overall satisfaction. For each domain, scores are interpreted as severe dysfunction (SD), moderate dysfunction (MOD), mild to moderate dysfunction (MMD), mild dysfunction (MD), and no dysfunction.[9] Erectile performance anxiety was assessed using a 10 - item self-report scale that has statements pertaining to person's anxiety about being able to achieve or maintain an erection during the last week, or his imagination of how he would have reacted.[10]

Elucidation of Psychological Variables

Perceived stress scale was used for assessing perceived stress. The questions in this 4 item scale ask about feelings and thoughts during the last 1 month.[11] For self-esteem, Rosenberg self-esteem scale was used. It is a 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self. All items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree.[12]

Lower the scores of IIEF more is the severity of ED, while the severity of ED is more when the scores of perceived stress and erectile performance anxiety are higher. In case of Rosenberg self-esteem scale as the score increase, lower is the self-esteem. For the purpose of analysis, mean score of all these variables were calculated and they were further categorized as 1 (below the mean) and 2 (equal to and above the mean).

Technique of Focused Interview

The interview was conducted in a separate room. After securing a rapport, interviewee was allowed to tell his story in his own way, and an attempt was made to find out various psychological issues which might have contributed to the problem. At the end of the narration, the report was compiled immediately.[13]

Exclusion Criteria

Patients unwilling to participate in the survey, patients with a history of neuropsychiatric disorders, neurovascular disorders, and patients planned for ED surgery.

Statistical Analysis

Analysis was performed using computer software SPSS (version 20.0). Descriptive statistics were used for the demographic and outcome data and summarized as mean ± standard deviation. Pearson's Chi-square test was performed to find the association between various variables and erectile performance anxiety. The correlation between various psychological variables and ED was assessed using the Pearson correlation test. A $P < 0.05$ was considered statistically significant.

RESULTS

A total of 155 patients of ED who fulfilled the exclusion criteria were included in the study. The mean age was 33.93 ± 5.05 years (range 25-48). 60 (38.70%) cases were in the age group of 30-35 years followed by 45 (29.03%) in the age group of 35-39 years. When literacy levels were analyzed, the results revealed that 22.6% of the respondents had completed graduation. The mean family income was 5.08 ± 2.04 lacs/annum. None of the patients was suffering from diabetes, hypertension, and cardiovascular diseases or gave a history of being a long distant bicycle rider. Table 1 depicts that there was a statistically significant association

between employment status and type of employment with different levels of erectile performance anxiety (P = 0.009 and 0.006 respectively). Table 2 shows that 36.77% subjects reported that preoccupation in job was affecting their family life, 43.87% admitted having some relationship issues with partners, and 51.61% had low self-esteem and these three variables showed a statistically significant association with different levels of erectile performance anxiety (P = 0.002, 0.01, and 0.009, respectively).

Around 20 (12.9%) patients gave a history of past sexual trauma. Regarding the treatment seeking behavior 23 (14.88%) patients felt that due to their busy lifestyle and job responsibilities, they were stressed and had planned to seek medical consultation. 3 (1.93%) patients had sought consultation once and only one patient had sought consultation more than once. Table 3 gives the mean scores of various psychological variables and domains of IIEF.

There was a negative correlation between scores of various psychological variables and domains of IIEF, and it was statistically significant, however, the correlation between perceived stress score and erectile performance anxiety with score of overall satisfaction (P = 0.51 and 0.09, respectively) and erectile performance anxiety with OTO (P = 0.10) was not statistically significant (Table 4). Table 5 depicts the correlation between various psychological variables and erectile performance anxiety. The correlation was significant at 0.01 levels. There was a significant positive correlation between perceived stress score and self-esteem score with erectile performance anxiety score. As the scores of psychological variables increase, erectile performance anxiety also increased.

Table 1: Association of demographic variables with different levels of erectile performance anxiety

Demographic characters	Total	Erectile performance anxiety		χ^2	*P*
		< mean score *n*=65	≥ mean score *n*=90		
Age					
<35	95	42	53	0.52	0.47
≥35	60	23	37		
Marital status					
Married	135	55	80	0.61	0.43
Single/divorced/widower	20	10	10		
Education					
Graduation and below	55	32	23	0.09	0.18
Postgraduation	100	33	67		
Employment status					
Employed	140	54	86	6.72	0.009*
Unemployed	15	11	4		
Type of employment					
Business	61	29	26		
Labor	48	12	36	12.14	0.006*
Service	27	7	20		
Others	4	6	4		
Annual income					
<5.08 lac	52	19	33	0.93	0.33
≥5.08 lac	103	46	57		

*P≤0.05-significant

Table 2: Psychological issues and their association with different levels of erectile performance anxiety

Psychological issues	Total *n*=155	Erectile performance anxiety		χ^2	*P*
		< mean score *n*=65	≥ mean score *n*=90		
Dissatisfaction with economic status of the family	27	9	18	0.99	0.31
Too much preoccupied in job	57	15	42	9.03	0.002*
Long travel time related to occupation	11	5	6	0.03	0.99
Relationship issues with partner	68	21	47	6.07	0.01*
Low self-esteem	80	15	65	7.30	0.009*
High perceived stress	80	20	60	3.89	0.053

*P≤0.05-significant

DISCUSSION

The mean age of patients in this study was 33.93 ± 5.05 years and 61.66% of those with age ≥35 years had high mean score of erectile performance anxiety. Type of employment was found to be significantly associated with ED. Previous researches have described that ED is a major health issue among young men.[14,15] Halliwell and Gutteridge have explained that in most of the young and middle-aged men, ED is due to psychological factors.[16] The various reasons cited in the literature for ED in this age group include personal and professional stress, unfaithful partner, unhappy married life, etc. Even in this study, psychological variables were significantly associated with different domains of ED.

Details of related events regarding any personal losses, sexual traumas, difficult relations with the partners help to provide a deeper insight into the patient's problems.[17] To explore the extent of the problem, it is desirable to seek a good rapport with the respondents.[18] In the current study, due care was taken to explore the psychosocial issues of the patients. Difficult and estranged relationships are usually the manifestations of daily frustrations, and in the current study too, most of the patients were employed and exposed to these issues such as prolonged working hours and frequent job transfers. Stress of complex modern lifestyle acts as an impetus in disease causation.[19] This study shows a significant correlation between perceived stress, low self-esteem and erectile performance anxiety. DiMeo have explained that stress associated with anxiety leads to vasoconstriction and that has a negative impact on man's erectile ability.[20] The present study findings suggest that ED was correlated with significant erectile performance anxiety; Mourikis et al. have also shown significant association of anxiety with ED.[21] Earlier studies have also concluded that fear of being negatively evaluated by others, weak self-esteem, anxious personality, etc., are more common in those men who have sexual concerns.[22,23] Those suffering from ED, report psychological effects such as feeling of guilt, depression, anger, lowering of self-confidence, and self-esteem.[24,25] It is important to consider whether ED resulted due to low self-esteem/anxious/stress full personality or ED contributed to the development of these personality traits. Mostly these are interrelated with each enhancing the effect of other. In any situation, even if the psychological variables have caused or occurred due to dysfunction, they need to be managed simultaneously.

Young patients with sexual complaints must be evaluated for various psychological issues by incorporating standardized psychological questionnaires, and those with severe emotional conflicts need to be referred along with their partners to a mental health practitioner to improve patient management and the outcome.[26-28] Modifying immediate psychological factors may result in less medication need in these cases. A combination therapy involving counseling session integrated with routine interventions can ensure patient satisfaction and improve treatment outcome.[29] A continuing dialogue with the patient by regular follow up will evoke compliance to therapy; confirm patient cooperation and ultimately successful resolution of ED. This study has demonstrated the importance of evaluating the psychosocial factors associated with ED. The current study being a

Table 3: Mean scores of various psychological variables and domains of the IIEF

Psychological variables and domains IIE	Mean score±SD	Range
Perceived stress	8.38±3.37	3-15
Self-esteem	25.22±4.23	14-36
Erectile performance anxiety	40.22±3.88	33-46
Erectile function	12.22±3.35	6-21
Orgasmic function	2.51±1.06	1-5
Sexual desire	5.0±1.73	2-8
Intercourse satisfaction	5.54±1.98	3-9
Overall satisfaction	3.96±1.19	2-6

SD: Standard deviation, IIEF: International index of erectile function

Table 4: Correlation between scores of various psychological variables and five domains of IIEF

Psychological variables	Domains of IIEF				
	Erectile function	Orgasmic function	Sexual desire	Intercourse satisfaction	Overall satisfaction
Perceived stress					
Pearson correlation	−0.485	−0.464	−0.428	−0.612	−0.121
Significant (two-tailed)	0.006**	0.008**	0.016*	0.000**	0.518
Self-esteem					
Pearson correlation	−0.523	−0.572	−0.491	−0.564	−0.459
Significant (two-tailed)	0.003**	0.001**	0.005**	0.001**	0.009**
Erectile performance anxiety					
Pearson correlation	−0.395	−0.295	−0.421	−0.540	−0.306
Significant (two-tailed)	0.028*	0.107	0.018*	0.002**	0.094

*Correlation is significant at the 0.05 level (two-tailed), **Correlation is significant at the 0.01 level (two-tailed)

Table 5: Correlation between different psychological variables and erectile performance anxiety

Psychological variables	Erectile performance anxiety score
Perceived stress	
Pearson correlation	0.702
Significant (two-tailed)	0.000**
Self-esteem	
Pearson correlation	0.564
Significant (two-tailed)	0.001**

**Correlation is significant at the 0.01 level (two-tailed)

cross-sectional design with a small sample size may lack extrapolation of the results to a wider population. Further, hospital-based settings could have caused inherent bias in sample selection.

CONCLUSION

ED and the treatment of ED are associated with substantially broader aspects of a man's life. There is a need to introduce counseling for psychosocial issues in patient management protocol. A multidisciplinary team consisting of medical practitioners (urologist, trained nurses, care coordinators, psychologists, and counselors all stationed in house) should be available in those centers where patients of ED are managed. A study on impact of addressal of these psychosocial factors on treatment outcome needs to be undertaken subsequently.

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