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STUDY OF FACTORS AFFECTING ANXIETY AND DEPRESSION AMONG PERSISTENT SOMATOFORM PAIN DISORDERS PATIENTS AT TERTIARY CARE HOSPITAL IN MEERUT.

Medical Science

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ABSTRACT

Background: Somatoform disorders are broad group of illness that have bodily signs and symptoms including pain which cannot be adequately explained by organic findings. It appears to be a heterogeneous group of conditions, they often-exist with depression and anxiety and other somatoform disorders.

Aim: To study sociodemographic profile, stressful life event score and their effect on anxiety and depression among somatoform pain disorders cases.

Material and Methods: Hospital based descriptive cross sectional study was conducted in psychiatry (OPD) on 40 patients with somatoform disorder.

Result: Male to female to ratio was 1: 2.01. Nearly half of the patients were farmers (45%). Almost 12.5% had severe stress (>748), 7.5% had moderate stress (604 to 748) and 2.5% had mild stress (459 to 603) while 78% of total cases had no stress with presumptive stress score less than 459. Twenty six percent of female and 38% males had anxiety and depression.

Conclusion: Except history of stressful life event none other factor showed statistical significant association with occurrence of anxiety and depression. A detailed understanding of the patient's characteristics, socio-demographic and economic status and personality factors is a prerequisite for managing such patients.

KEYWORDS

DSM IV, Fibromyalgia, Hysteria, Mental disorder.

INTRODUCTION:

Somatoform disorders are broad group of illness that have bodily signs and symptoms including pain which cannot be adequately explained by organic findings.[1] Often these physical symptoms remain medically unexplained and are associated with increased medical visits, unnecessary medical tests, and the performing of procedures that may result in iatrogenic complications.[2]

Although Somatoform disorders (SD) appears to be a heterogeneous group of conditions, they often-exist with depression and anxiety and other somatoform disorders.[3,4] The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) and the tenth edition of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) have classified depression, anxiety and SD in three different major diagnostic categories. Somatic complaints are the hallmark presentations of depression and anxiety in routine care, in particular in low and middle income countries (LMIC).[5]

After reviewing the literature on the association of Somatoform disorders (a category which included medically unexplained somatic symptoms) with depression and anxiety, we got very scant data in Indian context. So, this work was planned to study sociodemographic profile, stressful life event score and their effect on anxiety and depression among somatoform pain disorders cases in tertiary care hospital.

MATERIAL AND METHODS:

A hospital based descriptive cross sectional study was conducted in psychiatry out patients department (OPD) of Chhatrapati Shivaji Subharti Hospital, Meerut attached to medical college between January 2011 and December 2011. Coverage area of the hospital has rural background. All patients of between the age group of 10 years to 60 years, both gender, who were diagnosed as persistent somatoform pain disorder according to International classification of diseases (ICD) 10 attending Psychiatric OPD for first time were enrolled. Patients with organic disease, psychotic disorder, hearing impairments, mental retardation and not willing to give consent were excluded. Institutional Ethical Committee (IEC) permission was sought before commencement of data collection. Out of 3635 new patients examined in the psychiatry OPD from January to December 2011, forty eight patients were diagnosed as persistent somatoform pain disorder by two senior Psychiatrists. Out of that, 40 patients were taken for the present study, diagnosed as Persistent Somatoform Pain Disorder according to ICD-10. Two patients had organic illnesses. Six patients did not turn up for detailed assessment of the study.

Valid informed consent and assent was taken before the data was collected. Data about sociodemographic conditions, past history, family history and personal history was collected. Thorough general, physical and systemic examination was also performed. Organic illnesses were ruled out by doing all the routine and specific investigation. After ruling out any organic cause of the illness, a detailed past and present psychiatric history was taken and in depth psychiatric examination was done by two senior Psychiatrists independently to diagnose cases of persistent somatoform pain disorder in accordance with ICD-10 to avoid interpersonal bias.

Presumptive stressful life events scale prepared by Singh et al[6] was used to assess the effect of stressful life events in the onset of persistent somatoform pain disorder. Past stressful events, if any, were recorded in past one year of the onset of illness. All of the patients were also assessed for presence of anxiety and depression, by subjecting them to the Hamilton Depression Rating Scale and Hamilton Anxiety Rating Scale.[7,8]

Data was collected and maintained in Microsoft Excel 2007 and processed with the help of SPSS v.16. Descriptive statistics like frequency, proportion, mean and standard deviation were used. Figures and tables were used at appropriate places. Chi-square test was applied to check statistical association.

RESULTS:

The study conducted at psychiatry department of tertiary care hospital attached to medical college enrolled forty patients of Persistent Somatoform Pain Disorder as per the criteria of ICD l0. The study was conducted between January and December 2011. Characteristics of study participants are shown in table no. 1. It was observed that maximum no of patients (40%) belongs to age group 51 to 60 year followed by 41 to 51 years (30%). Age group of 10 to 20 year had only 2.5% patients. Most of the patients were educated up to secondary level (30%) and belongs to lower middle class (75%). Female (67.5%) were more than male (32.5%). Male to female to ratio was 1: 2.01. Nearly half of the patients were farmers (45%). Rest were semi-professionals, skilled and unemployed. Study subjects belonging to nuclear family were higher than that of joint family. Majority of the patients came from rural background 77.5% and rest of patients belongs to an urban areas. About 88% of total participants belonged to upper lower and lower middle Socio-economic class. Most of

participants were married (60%) followed by unmarried (25%), widowed and divorced.

Figure no.1 & table no. 2 shows history of stressful life event and presumptive score. Twenty three percent patients had history of stressful life events before the onset of illness. Presumptive life event scale was used to calculate score which helped to classify patients on the basis of level of stress. Almost 12.5% had severe stress (>748), 7.5% had moderate stress (604 to 748) and 2.5% had mild stress (459 to 603) while 78% of total cases had no stress with presumptive stress score less than 459. About one third had positive family history. Majority of patients (67.5%) had negative family history.

Association between various characteristics of study participants and anxio-depressive feature is shown in table no. 3. Chi square test was applied to find out statistical significance of association. Association of five factors like gender, residence, family type, religion and history of stressful life event with presence of anxiety and depression was checked. Out of 40 patients with somatoform pain disorder, 12 (30%) had anxio-depressive features. Twenty six percent of female and 38% males had anxiety and depression. Out of 31 patients residing in rural area, 10 (32.25%) had anxiety and depression. Nine out of 22 (40.9%) having nuclear family had anxiety. Association between gender, residence, type of family, religion and presence of anxiety and depression was not statistically significant. Out of 9 patients having history of stressful life event 8 (88.88%) had anxio-depressive feature. Statistical significant association found between history of stressful life event and presence of anxiety and depression.

DISCUSSION:

This study was conducted on Persistent Somatoform Pain Disorder cases to study associated socio demographic variables and effect of stressful life event on its onset and also an association with occurrence of anxiety and depression. Headache, abdominal pain, chest pain and neck pain were common symptoms. Grabe HJ et al[9] and De Waal et al[10] in their studies reported 0.6% and 1.6% prevalence, respectively. A prevalence of 1.1% of Persistent Somatoform Pain Disorders among the new patients attending the psychiatry OPD in present study. The slight variation in finding can be easily attributed to the fact that patient sample size was predominantly rural and it was a hospital based study.

This study noted as the age increased, prevalence of somatoform pain disorder was also increased. Wahl AK et al[11] found maximum percentage of patients with pain disorders to be in the older age group (31%) which is in sync with the findings in our study. Study done by Aikehessel et al[12] reported similar trend with 19.2% of the younger age group, 27.5% of the middle-aged group, and 31.2% of the older group reported chronic pain (i.e.>3 months duration). Steven et al[13] in a retrospective study, found that the maximum number of patients presenting with neurotic complaints were females. Escobar JI et al[14] in a study found that of the 56% of the patients with somatic complaints were women. Araya et al[15] found that somatoform disorders were more frequent in females. Male to female to ratio was 1: 2.01 in present study.

Mathur et al[16] & Subramaniam et al[17] reported 16% and 12% illiterate and 38% and 48% with education up to secondary level respectively. These findings are similar to our findings. This may be due to rural background of patients. In present study, 45% of cases were illiterate. In present study, most of the patients were farmers as many patients were from rural background. Araya[15] reported that incidences of mental disorders was more in patients with unskilled skill set and low income. Ponnudorai et al[18] reported 39% females from joint families and 61% nuclear families while present study reported 45% and 55% respectively. The difference in these findings is attributable to differences in cultural and social factors and customs of Rajasthan and Uttar Pradesh.

It was found in present study, according to socioeconomic classification for socio economic status that 75% were from lower middle class. Choudhary et al[19] reported hysterical neurosis were more common in low socio income group. Study shows majority of patients were married i.e. 60%.There are some studies shows similar result. Hafeiz[20] reported 72% unmarried and 28% married patients. The difference in our finding can be attributed to the fact that he studied only young population between 10 to 25 years and his study was conducted in Sudan, where it is possible that most of the people are getting married quite late.

Study done by Araya et al[15] noted that more number of patients who were diagnosed as somatoform disorder had positive history of somatic complaints in their families. Present study reported 32.5% of the patients had a positive family history towards mental illness. Sumathipala et al[21] observed that mean number of stressful life events experienced by neurotics over a period of one year was quite close to our finding (4.8). Shidhaye et al[22] in their study of adolescents with somatic complaints found exit events significantly associated with the present illness.

Present study noted that 30 percent of Persistent Somatoform Pain Disorder patients had depression and anxiety. Statistical significant association found between stressful life event and anxio-depressive feature. Massieh et al[23] reported in his study that almost similar proportion of patients of somatoform pain disorder had anxiety and depression. It was a population-based studies have found that the co-occurrence of some types of somatoform disorders and anxiety and depressive disorders were common. Poole H et al[24] and Fishbam et al[25] found that depression was more common among patients with chronic pain than in healthy controls.

CONCLUSION:

Except history of stressful life event none other factor showed statistical significant association with occurrence of anxiety and depression. Persistent somatoform pain disorders cases were common in females, higher age groups, married, residing in rural area and lower socio-economic strata. Present study conducted in hospital on smaller sample size so result cannot be generalized on larger community. Future community based studies with larger sample size will be required for generalization of findings. A detailed understanding of the patient's characteristics, socio-demographic and economic status and personality factors is a prerequisite for managing such patients.

Tables and figure:

Table no. 1: Sociodemographic profile of somatoform pain disorder patients (n=40).

		Frequency	%
Age groups (years)	10 to 20	1	2.5
	21 to 40	11	27.5
	41 to 50	12	30
	51 to 60	16	40
Education	Illiterate	18	45
	Primary	1	2.5
	Secondary	12	30
	Higher secondary	5	12.5
	Graduate	4	10
Gender	Female	27	67.5
	Male	13	32.5
Occupation	Semi professional	4	10
	Farmer	18	45
	Skilled worker	9	22.5
	Unemployed	9	22.5
Family type	Nuclear	22	55
	Joint family	18	45
Residence	Rural	31	77.5
	Urban	9	22.5
Kuppuswamy Socioeconomic classification	Upper	0	0
	Upper middle	2	5
	Lower middle	30	75
	Upper lower	5	12.5
	Lower	3	7.5
Marital status	Married	24	60
	Unmarried	10	25
	Divorced	2	5
	Widowed	4	10
	Separated	0	0

Figure no. 1: Distribution of study participants according family history and presence of stressful life event.

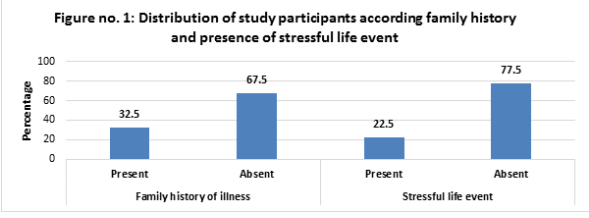

Table no. 2: Distribution of somatoform disorders patients according to presumptive stressful life event score.

Stress category	Stress score	Frequency	%
No stress	<459	31	77.5
Mild	459 - 603	1	2.5
Moderate	604 -748	3	7.5
Severe	>748	5	12.5

Table no. 3: Association of various characteristics of study subjects with anxio-depressive features.

Characteristics		Anxio-Depressive features		P' value	Statistical significance
		Present	Absent		
Gender	Female (n=27)	7 (17.5%)	20(50%)	0.42	Not significant
	Male (n=13)	5(12.5%)	8(20%)		
Residence	Rural (n=31)	10(25%)	21(52.5%)	0.69	Not significant
	Urban (n=9)	2(5%)	7(17.5%)		
Family type	Nuclear (n=22)	9(22.5%)	13(57.5%)	0.67	Not significant
	Joint (n=18)	3(7.5%)	5(12.5%)		
Religion	Hindu (n=31)	9(22.5%)	22(55%)	0.81	Not significant
	Muslin (n=9)	3(7.5%)	6(15%)		
Stressful life event	Present (n=9)	8(20.5%)	1(2.5%)	0.001	Significant
	Absent (n=31)	4(10%)	27(67.5%)		

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