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Research Article

**PERVASIVENESS OF STRESS, ANXIETY AND DEPRESSION  
IN PATIENTS OF DYSPEPSIA HOSPITALIZED FOR  
ENDOSCOPY**

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**Abstract:**

**Objective:** The aim of this analysis was to evaluate the frequency of depression, stress and anxiety in dyspeptic symptoms patients admitted for endoscopy.

**Study design:** A cross-sectional study.

**Place and Duration:** In the Medicine department of Ganga Ram Hospital, Lahore in collaboration with Psychiatry department for one-year duration from November 2017 to October 2018.

**Methods:** Patients who were referred by the medical department with the symptoms of dyspepsia were evaluated in the psychiatry department before endoscopy. 40 total patients who met the criteria were included and their demographic variables were obtained using a performance designed Performa their demographic variables were recorded specifically for this aim. The Depression Anxiety Stress Scale Urdu version was applied to the selectees to determine the three emotional states selected: depression, stress and anxiety. DASS is a 42-item self-report tool made to evaluate 3 associated negative emotional anxiety, tension / stress and depression conditions. The results are indicated in the results.

**Results:** A total of 40 patients (29 women, 11 men) aged between 15-70 years were included in the study. Of the 40 patients studied, anxiety in 82.5%, depression in 60% and stress in 67.5%. In addition, 80% of the sample in the sample underwent inflammatory changes in endoscopy and the most prominent emotional state in this group was anxiety. Depression, anxiety and stress were seen equally in 20% of the patients without inflammatory findings in endoscopy.

**Conclusion:** Anxiety, depression and emotional stress disorders were frequently observed in dyspepsia patients and this was the most common anxiety among these three negative emotional states. An evaluation of anxiety in the treatment of dyspepsia is recommended.

**Key words:** Anxiety, Dyspepsia, Stress, Depression.

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**INTRODUCTION:**

Dyspepsia is a common symptom in medical practice and is defined by recurrent, chronic pain or discomfort in the upper abdomen and fullness, and fullness feeling earlier than expected when eating<sup>1-2</sup>. No organic lesion was found in many patients with dyspepsia. Patients with non-organic dyspepsia are collectively referred to as "functional dyspepsia" or "non-ulcer dyspepsia" and are suggested to influence general population about 15%<sup>3</sup>. Before declaring functional dyspepsia, examination on endoscopy often shows dyspeptic properties in most of these patients<sup>4</sup>. Despite depression, stress and anxiety are usual in the literature<sup>5</sup>.

Patients with anxiety and depression disorders and a strong correlation with dyspepsia and non-organic gastrointestinal symptoms have been reported<sup>6</sup>. A literature review also have strong relation between psychiatric disorders and upper GIT inflammatory changes<sup>7</sup>. Local studies also reveal the relationship between dyspeptic symptoms and psychological disorders. Therefore, it is beneficial to examine various sides of the association between psychiatric morbidity and dyspepsia<sup>8</sup>. This feature is also more appropriate when it is examined in the local population<sup>9</sup>. Considering these precursors, this study was conducted in order to know the frequency of depression, stress and anxiety in patients with dyspepsia<sup>10</sup>.

**MATERIALS AND METHODS:**

This cross-sectional study was held in the Medicine department of Ganga Ram Hospital, Lahore in collaboration with Psychiatry department for one year duration from November 2017 to October 2018. All dyspeptic patients participating in a medical OPD

for endoscopy were selected for the analysis. All sample included both sexes and all ages subjects regardless of their educational and marital status. Patients with medical and psychiatric disorders were discarded from the analysis. The research protocol of the analysis was approved and presented by the Ethics Committee. From all these patients, Written informed consent was taken. The Urdu version of DASS is a 42-item questionnaire made to determine 3 negative emotional states intensity: anxiety, stress and depression. Many analysis are done and noted positive psychometric properties of DASS in adults with mood disorders or anxiety. All analysis showed DASS scales and its internal excellent consistency. The cut-off value of the DASS score is 9 for depression, 7 for anxiety and 14 for stress. In various studies, DASS is important and is considered a very beneficial method. The sample population done with endoscopy and the results were recorded according to the presence or absence of any organic pathology. In both groups, depression, anxiety, and frequency of stress, that is, without evidence of endoscopy, evidence or without inflammation evidence.

**RESULTS:**

40 total cases who met the criteria of inclusion were selected. The females were 29 and males were 11, and the sample group minimum age was 15 years, the 70 years was the maximum age and the mean age was 32.8 years. After the determination of psychiatric morbidity, using the DASS in Urdu version, anxiety was the most common cause of morbidity, after that depression and stress. Of the 40 patients, 33 (82.5%) had anxiety, 40 (27.5%) had stress and 24 (60%) had depression. The details of the severity of the three emotional states are given in Table I.

**TABLE I: FREQUENCY OF DEPRESSION, ANXIETY AND STRESS (DASS SUB SCALES SCORES) (n=40)**

Severity*	Depression		Anxiety		Stress	
	Frequency	%	Frequency	%	Frequency	%
0	16	40	7	17.5	13	32.5.9
1	4	10	8	20	5	12.5.7
2	12	30	7	17.5	12	30.0
3	5	12.5	9	22.5	6	15.0
4	3	7.5	9	22.5	4	10.0
<b>Total</b>	<b>40</b>	<b>100</b>	<b>40</b>	<b>100</b>	<b>40</b>	<b>100</b>

\*0=normal, 1=mild, 2=moderate, 3=severe, 4=very severe

The majority of the patients (37 in 40) suffered from comorbid disease (these three diseases had more than one disease), and there was no psychiatric morbidity in 03 patients. Inflammatory changes were observed in 32 patients (80%) in endoscopic examination; The analysis of DASS scores in these two groups showed that anxiety was the dominant morbidity, 27 (84%) cases were present, 21 (65.6%) had stress and 13 had depression.

**TABLE II: DETAILED ANALYSIS OF THE DASS SCORES (n = 40)**

No of Patients	Depression	Anxiety	Stress	Percentage
03	Not present	Not present	Not present	7.5 %
00	Present	Not present	Not present	0 %
06	Not present	Present	Not present	15 %
03	Not present	Not present	Present	7.5 %
04	Present	Present	Not present	10 %
04	Not present	Present	Present	10 %
01	Present	Not present	Present	2.5 %
19	Present	Present	Present	47.5 %
40	24 (60%)	33 (82.5%)	27 (67.5%)	100 %

In the endoscopy, 40.6% of the patients in the inflammatory group, 06 (75%) patients in the other group, 06 (75%) patients in the stress and 06 (75%) in the cases of depression were detected. The statistical analysis of these two groups did not differ significantly (Table III).

**TABLE III:  
ENDOSCOPIC FINDINGS AND DEPRESSION,  
ANXIETY AND STRESS (n = 40)**

Morbidity	Patients with inflammation on endoscopy (32Patients) (80%)	Patients without inflammation on endoscopy (08Patients) (20%)	P-value
Depression	19(59.4%)	05(62.5%)	0.872
Anxiety	27(84.4%)	06(75.0%)	0.533
Stress	21(65.6%)	06(75.0%)	0.613

## DISCUSSION

Our sample group demographic pattern of included most of the dyspeptic patients. Bennet et al. Women seem more sensitive to developing anxiety; however, our sample was small and could not be interpreted unless large sample studies were performed<sup>11</sup>.

In our analysis, the sample half population had 3 psychiatric disorders, indicating that dyspepsia patients tend to develop multiple psychiatric problems and that psychiatric morbidity is strongly associated with dyspepsia<sup>12</sup>. Our study shows that anxiety is predominantly present in cases of dyspepsia. This finding was reported by Pertti Aro et al And T Tangen Haug, reported significant morbidity in depression sample groups<sup>13</sup>. It is widely accepted that patients with functional dyspepsia (without inflammatory findings in endoscopy) have a strong relationship with stressors and psychiatric morbidity is frequently observed in these patients<sup>14</sup>. On the other hand, many studies have reported that psychiatric disorders are

frequently observed in patients with peptic ulcer / duodenal ulcers showing inflammatory changes in the upper GIT<sup>15</sup>. However, the results of our study showed that depression, anxiety and stress were almost equal in patients with organic dyspepsia (inflammation of the mucosa) and functional dyspepsia. Consider the psychological assessment (and subsequent treatments) of all patients with dyspepsia, whether organic or functional.

## CONCLUSION

Emotional disorders are common in patients with dyspepsia. Among the three negative emotional states measured in this study, the most common anxiety was stress and depression. Anxiety assessment in patients with dyspepsia will be useful in the treatment of these cases.

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