



ORIGINAL RESEARCH PAPER

Psychiatry

ANXIETY IN CO MORBID MEDICAL CONDITION

KEY WORDS: anxiety; medical condition, co morbidity

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ABSTRACT	Sims and Objective —The current study assessed associations between severity of anxiety and depression and presence of medical conditions in adults diagnosed with anxiety disorders.
	Method —One-hundred twenty four patients diagnosed with any anxiety disorders, grouped on the basis of presence or absence of any medical co morbidity, were rated for the severity of anxiety and depressive symptoms and on HADS and compared for their mean scoring.
	Results — Out of 124 total sample, 58 patients were found with comorbid anxiety disorder and medical illness and 66 patients with anxiety disorders alone. The mean HADS Anxiety score for without co morbidity was 10.78 ± 2.69 and for the group of co morbidity it was 12.84 ± 3.17 (t value = 3.902, df= 122 and p value=.000). Where as the mean HADS Depression score for without co morbidity was 9.96 ± 2.40 and for the group of co morbidity it was 10.55 ± 1.85 (t value = 1.493, df= 122 and p value=.138).
	Conclusions — Severity of anxiety symptoms was strongly associated with having medical co morbid conditions.

Introduction

The association between anxiety disorders and medical disease is understudied compared to that of depression and disease (1). Individuals with high anxiety are more likely than those without anxiety to have a wide array of medical conditions, including cardiovascular, autoimmune, and neurodegenerative diseases, and are at greater risk for early mortality (2–5).

Anxiety and depressive disorders are highly comorbid and their symptoms overlap (6). Therefore, it is important to assess whether links between anxiety and medical conditions are explained by overlap between anxiety and depression or whether anxiety contributes uniquely to medical comorbidity. Previous cross-sectional studies finds associations between anxiety and depressive symptom severity and medical illness depends on the severity factor, and most of the studies examined only one medical condition at a time (7-9). This approach limits understanding of how anxiety relates to multiple medical conditions within the same sample. Thus, knowledge of disorder-level anxiety and depression comorbidity and its relation to medical conditions is limited. The goal of the current study is to assess the association between anxiety and depressive symptom severity and medical comorbidity in a sample of patients diagnosed with anxiety disorders.

Method

Participants

Participants were 124 patients of either gender between the ages of 18 and 60 years attending Psychiatry OPD either directly or as a referred from other departments (see Table 1 for demographics). Between January 2013 and December 2013, a total of 124 patients consented to participate in this study. All patients attended psychiatry OPD who were diagnosed with panic disorder, generalized anxiety disorder or specific anxiety disorder. The total sample was subdivided into two groups, first group was with any comorbid chronic medical conditions (Diabetes or Hypertension) and the another group was without any comorbid medical conditions. The exclusion criteria included patients with unstable or life-threatening medical conditions, psychosis, substance use

disorders, or bipolar disorders.

Procedure and Design

The current study was cross-sectional in design and did not include data collected at follow-up time points.

Tools

Socio-demographic Data Sheet: The socio demographic data sheet included age, gender, religion, Years of education and socio economic class of the patients. It also recorded medical diagnosis and psychiatric diagnosis.

Hospital Anxiety and Depression Scale (HADS) [10]: this is very well validated scale to assess anxiety and depression among hospitalized patients. It consists of 14 questions, 7 scoring anxiety and 7 scoring depression. We omitted those questions relating to depression. Patients were asked to read each question and place a tick against the reply that came closest to how they had been feeling that day. Each answer was scored 0, 1, 2 or 3. The possible range of scores was therefore 0 to 21, with higher scores indicating greater levels of anxiety. Score of 0-7 is considered normal, scores of 8-10 is borderline abnormal and scores of 11-21 is abnormal case.

Statistical Analyses

The collected data of all patients was statistically analyzed, using Statistical Package for Social Sciences (SPSS, Inc., Chicago, Illinois) version 10.0.

Data analysis included means and standard deviations for each group, and clinical subgroup of the sample. The parametric t-test was used for continuous variable and chi square test for categorical variables to determine if differences existed between the groups. Statistically significant levels are reported for p values less than or equal to 0.05. Highly significant levels are p values less than .001.

Results:

A total of 124 patients (54 male and 70 female) were included for

the study. The group of patients with anxiety but without any medical illness consisted of 66 patients (with mean age of 44.86 ± 9.77 years) another group with comorbid anxiety disorder and medical illness consisted of 58 patients with mean age of 46.71 ± 9.11 years). The mean years of education in these two groups was 10.25 ± 1.79 and 10.10 ± 2.44 years respectively. (Table -1)

The main result was the mean Anxiety scores of HADS of these two groups, the mean HADS Anxiety score for without co morbidity was 10.78 ± 2.69 and for the group of co morbidity it was 12.84 ± 3.17 (t value = 3.902, df= 122 and p value=.000). Where as the mean HADS Depression score for without co morbidity was 9.96 ± 2.40 and for the group of co morbidity it was 10.55 ± 1.85 (t value = 1.493, df= 122 and p value=.138).

Discussion

Etiopatho genesis of anxiety is considered as multi factorial and presence any physical illness is more anxiogenic to normal person or exacerbating severity of anxiety among persons suffering from any anxiety disorders. This finding is consistent with previous research showing that patients with anxiety and depression have poorer physical health than patients diagnosed with either anxiety or depression alone (11). Patients reporting more severe symptoms of anxiety had medical co morbid conditions. There are links between anxiety and diseases of aging such as cardiovascular, autoimmune, and neurodegenerative diseases (12). There are evidence that anxiety and early life stress increases inflammation through changes in the brain (4,13), changes in hypothalamic-pituitary-adrenal and autonomic nervous system activity (14), and accelerated cellular aging (15). The current study provides further evidence for a link between anxiety and medical comorbidity of diabetes and hypertension.

Previous studies also have established a unique relation between migraine headaches and anxiety (16, 17) as well as coronary heart disease events and anxiety (18). Future research could examine an interaction effect of anxiety severity and diagnostic status on presence of these medical conditions.

The current study has a number of limitations. All medical conditions were established via patient report of diagnoses and future studies should replicate these findings with more objective measures, such as medical records. Second, these findings were not prospective, and thus directionality cannot be determined. However, links between psychological and physical illness are likely bidirectional, and research examining directionality and mechanisms could elucidate treatment and prevention implications.

In conclusion, this study reveals that medical co morbidity is associated with significantly higher anxiety in patients with anxiety disorders.

Table : 1

		No Co morbidity (n=66)	Medical Co morbidity (n=58)	chi square	df	Sig. (2-tailed)
Gender	Male	35	19	5.16	1	.023
	Female	31	39			
Religion	Hindu	37	42	3.571	1	.059
	Others	29	16			
Socio economic status	lower middle	40	42	1.922	1	.166
	Middle upper	26	16			
		No Co morbidity (n=66)	Medical Co morbidity (n=58)			
Age		44.86 ± 9.77	46.71 ± 9.11	-1.993	122	.148
Years of education		10.25 ± 1.79	10.10 ± 2.44	-.404	122	.687

Total HADS Anxiety Score	10.78 ± 2.69	12.84 ± 3.17	3.902	122	.000
Total HADS Depression Score	9.96 ± 2.40	10.55 ± 1.85	1.493	122	.138

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