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The Relationship between Anxiety and Depression in Neurotic Patients

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Abstract
Objective: The relationship between neurosis and symptoms of anxiety and depression is very complex. Although a variety of self-report measures are beginning to be utilized to assess anxiety and depression in neurotic adults. So the purpose of the study was to better understand the phenomenology of neurotic symptoms depression and anxiety in an adult clinic sample.**Method:** The present study was conducted on 100 participants who have been divided in two groups. First group includes 60 patients (17 males and 43 females) with an average age 44,2 years, treated at the Department of Psychiatry of Clinical Hospital in Tetovo, with a clinical diagnosis of neurosis. The diagnosis of neurosis is set against the classification DSM-IV (Diagnostic and Statistical Manuel of Mental Disorder). They also had anxiety and depression in their clinic picture. All subjects were under pharmacological treatment with adequate psychopharmacological treatment. The second group includes 40 non anxious and non depressed control participants. The Beck depression Inventory (BDI) and Beck Anxiety Inventory (BAI) were applied to the entire study populations. **Results:** The results of the research showed that participants obtained more extreme scored on he BDI and BAI then did control subjects. Pearson correlation between two groups was positively significant at the level of 0.01. Also the depression and anxiety levels were higher in females with neurotic disorders.**Conclusion:** Neuroticism is strongly associated with depressive and anxiety symptoms in the patients with neuroses. Also the results suggest that two tests tap an emotionality factor of stability-instability.
Keywords: neurosis, depression, anxiety, correlation.

Introduction

Neurosis is one of the most prevalent medical disorders and has been recognized as a distinct pathological entity from early Egyptian and Greco-Roman period. Common usage of the word "neurosis" stems principally from the attempts of the 20-th century psychiatrist S. Freud to introduce a term that would have greater diagnostic specificity than "nerve disorder". According, the nerve disorder denotes neurotic disorder with changes in endogenous or vegetative function e.g. disturbances of sleep, appetite and libido. Also Freud was the first who proposed that the accumulation of tension due to frustrated sexual discharging was the cause of anxiety. He drew a distinction between realistic anxiety (in the face of actual danger) and neurotic anxiety (in the face of subjective perception of danger). At the same time he regarded depression as an integral part of neurosis.

The central feature of neurosis is chronic worry about a number of life matters that is judged to e excessive and uncontrollable. Also the worry is accompanied with several associated symptoms like as: restlessness, irritability, sleep disturbance, sadness, concentration difficulties, fatigability (Campbell and Brown, 2002). Generally, neurosis means poor ability to adapt to ones environment, an inability to change one's life patterns or the inability to develop a richer, more complex, more satisfying personality. Disorders that are considered a neurosis or neurotic disorder include post-traumatic stress disorder, somatoform disorder, anxiety disorder, panic disorder, phobias, dissociation disorder, obsessive compulsive disorder and adjustment disorder.

In recent years, a large number of studies report that the relationship between neurosis, anxiety and depression is very complex (Brisker, 2008). Depression was found, in up to 40% of neurotic patients/ Anxiety was also frequently reported in neurosis (Barrett et al., 1998; Fawcett, 1993). It was shown that the presence of such psychiatric co morbidities has a great impact in general health status and quality of life of neurotic patients. However little is known about these psychiatric co morbidities in patients with some form of neurosis. It has been recognized that anxiety is a central clinical features of neurosis. Anxiety is a prevalent symptom in neurosis. The psychiatrists found that the neurotic patients were anxiety sensitivity. For them anxiety sensitivity is defined as the fear of anxiety – related internal sensations based on the belief that these sensations have harmful physical, cognitive and social consequences. Anxiety sensitivity is believed to represent a psychological vulnerability factor that is particularly important in neurotic disorder (Taylor, Koch and McNally, 2002).

On the other hand depression is one of the most prevalent medical disorders. At least many of patients with primary depression complain of feeling anxiety, worried or fearful. Depression is a complex disease process that can be understood as a spectrum of mood disorders from mild isolated symptoms without disability through to bipolar disorders. Major depression defined by the Diagnosis and Statistical Manual for Mental Disorders (APA, 2004) is a clinical syndrome lasting at least two weeks and which represents a change from previous functioning during which the patient experiences at least five of the following symptoms: depressed mood, markedly diminished interest or pleasure, significant weight loss or gain or appetite disturbance; insomnia; psychomotor agitation or retardation; inappropriate guilt; diminished ability to think or concentrate or indecisiveness, or recurring thoughts of death including suicidal ideation. In people with neurotic diseases, depression is associated with a poor quality of life as well as lower survival. Some patients have both primary anxiety and primary depressive disorders, exactly patients with neurotic disorder.

Depression and anxiety are two of the prominent emotional states seen clinically and studied by researchers. They are manifested variety of symptoms among individuals and have been increasing effort by objectively their evaluations with the use of such instruments as the Beck Depression Inventory (BDI), Hamilton Rating Scale (HAMD) and Sung

Self Rating Scale (SDS) and the other scales to quantify the degree of symptom manifestation (Seitz, 1980).

Conditional studies of the interrelationships of depression, anxiety and neuroses also have been conducted. Beck et al. (1984) reported research that showed the BDI to relate to diagnosis depression, but not anxiety and that also showed the BDI to be more specific that other instruments, such as the HAMD. Davies, Burrows and Payton (2005), who used neurotic patients, noted positive correlations between the depression scale and symptoms of neuroses. In general, these studies argue against the contention that measures of depression, anxiety and neuroses are dependent (Snatch and Taylor, 1985; Kazvin, 2005).

Our objective in this study was to investigate the relationships between the symptoms of depressive and anxiety and the neurosis in a clinical general population. We hypothesized that neurosis would correlate positively with depression and anxiety.

Materials and methods

Subjects

The study included 60 patients (17 males and 43 females) with a mean age of 44,2 years with a clinical diagnosis of neurosis (phobia = 9, anxiety disorder = 11, somatoform disorder = 26, panic disorder = 7, stress disorder = 4, obsessive compulsive disorder = 3). The diagnosis of some form of neurotic disorder is set against the classification DSM-IV (Diagnosis and Statistical Manual for Mental Disorders) published by the American Psychiatric Association (APA, 2004). All the patients were treated at the Department of Psychiatry of Clinical Hospital in Tetovo. All patients were treated by psychiatrist with adequate psychopharmacological treatment. The control group consisted of 40 healthy subjects with mean age of 40,2 years. The patient and control samples did not differ significantly with respect to age or gender.

60 consecutive patients were asked to participate in the study at the outpatient department. At the same time 40 inpatients agreed to participate in the research. All subjects received verbal and written information from the investigators about the purpose and design of the study.

Instruments

Anxiety was evaluated with Beck Anxiety Inventory (BAI).BAI contains 21 items related with anxiety symptoms. The respondent is asked to rate how much he or she has been bothered by each symptom over the past week on a 4-point scale ranging from 0 to 3. The items are summed to obtain a total score that can range from 0 to 63. If the score is to nine points there are no indications of anxiety. Mild anxiety is suggested if the score is between 10 to 16 points. BAI suggests moderate anxiety symptoms if the score is between 17 and 19 and severe anxiety symptoms if the score is between 30 and 63. BAI has been found to have adequate internal consistency (Cronbach s alpha=0.786).

The beck Depression Inventory (BDI) is a 21-question, multiple choice and self-report inventory for depression symptoms. It consists of 21 questions about how the subject has been feeling in the last week. Each question has a set of at least four possible answer choices, ranging in intensity. When the test is scored a value of 0 to 3 is assigned for each answer and then the total score is compared to a key to determine the severity of depression symptoms. The standardcut-offs are: 0-9 indicates no depression symptoms; 10-18 indicates mild depression; 19-29 indicates moderate depression and 30-63 indicates severe depression (Steer et al., 1999). Cronbach's reliability for BDI was 0.765.

For statistical analyses we used SPSS software, version 17.

Results

Most of the neurotic patients had middle and high level depression. BDI scores ranged from 0 to 63. After scores of the entire samples were subdivide into five categories: 1.7% of patients were not depressed (score 0 – 9), 21.7% had mild depressive symptoms (score 10 – 18), 58.6% had moderate depressive symptoms (score 20 – 29) and 18.0% had severe depressive symptoms (score 30 – 63). The station in the control group is not like this. There 42.5% of the subject had no depressive symptoms, while 45% had mild depressed, 5% had moderate and 7.5% had severe .depressive

As shown in table 1 the mean BDI scores in patients with neurotic symptoms was 25.5 points, with values ranging between 0 and 63 points. The mean average of BDI among control subject was 10.5 points.

Table1. Depression scores as measured with BDI, respectively, for psychiatric patients with neurosis and control subjects

Depression	Control subjects	Subjects with neuroses
N	40	60
Mean	10,5	25,5
Standard Deviation	4,56	8,47
Minimum	4	8
Maximum	21	47
Pearson Correlation	1	0.944**

**Correlation is significant at the 0.01 level

From the figure 1 it is clear that patients with some form of neurotic disorder had higher BDI scores than control subjects.

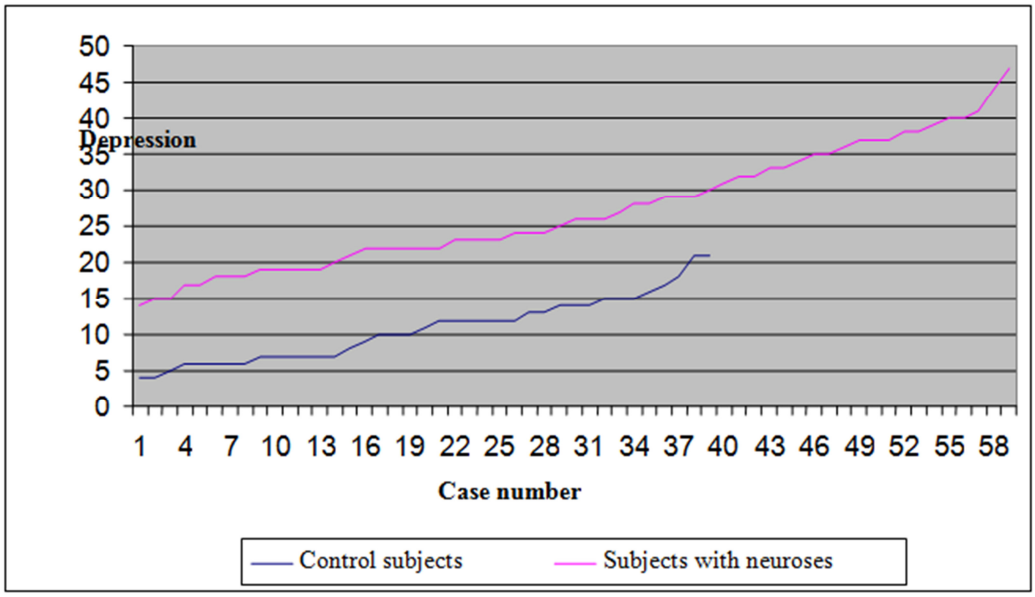


Figure1. Correlation between depression score, neurotic patients and control subjects

The level of anxiety was also high among participants. BAI scores ranged from 0 to 63. Upon subdividing the scores into three categories: 8.4% of patient had mild anxiety (score 10 – 16), 43.3 had moderate anxiety (score 17 – 29) and 47.3 had severe anxiety symptoms (score 30 – 63). The mean score and statistical deviations between two groups of subjects are shown in table 2.

Table2. Anxiety scores as measured with BAI, respectively, for psychiatric patients with neurosis

Anxiety	Control subjects	Subjects with neuroses
N	40	60
Mean	17.5	35
Standard Deviation	6.86	8.03
Minimum	4	17
Maximum	31	52
Pearson Correlation	1	0.974**

**Correlation is significant at the 0.01 level

Obtained results confirm that anxiety is present at the different levels in all patients. The incidence of anxiety in general population in Republic Macedonia is supposed to be 5.2%. It is very clear that neurotic patients manifested a much higher incidence of anxiety than the general population, which is statistically significant at the level of 0.01 (Figure 2).

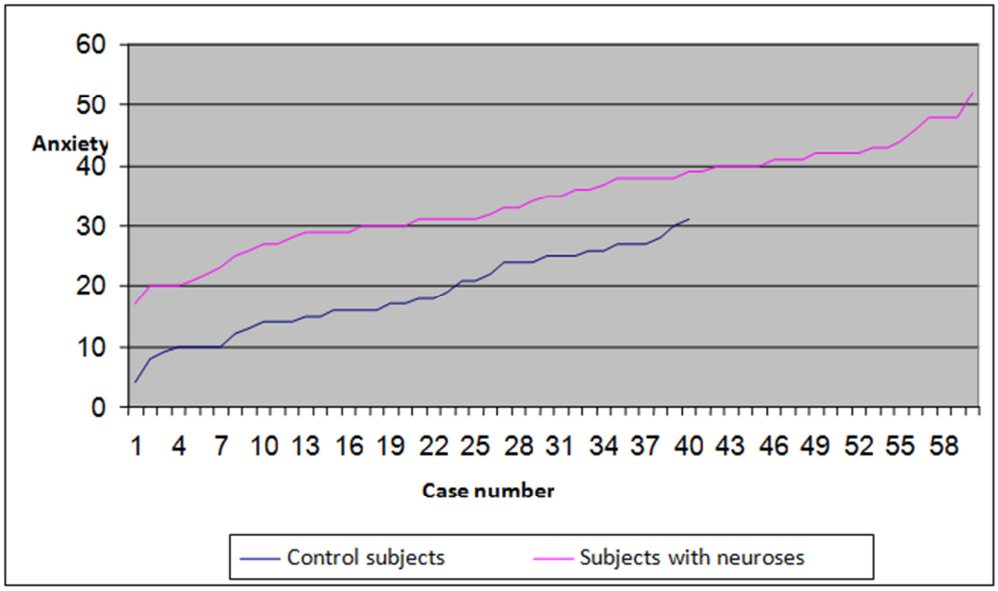


Figure2. Correlation between anxiety score, neurotic patients and control subjects

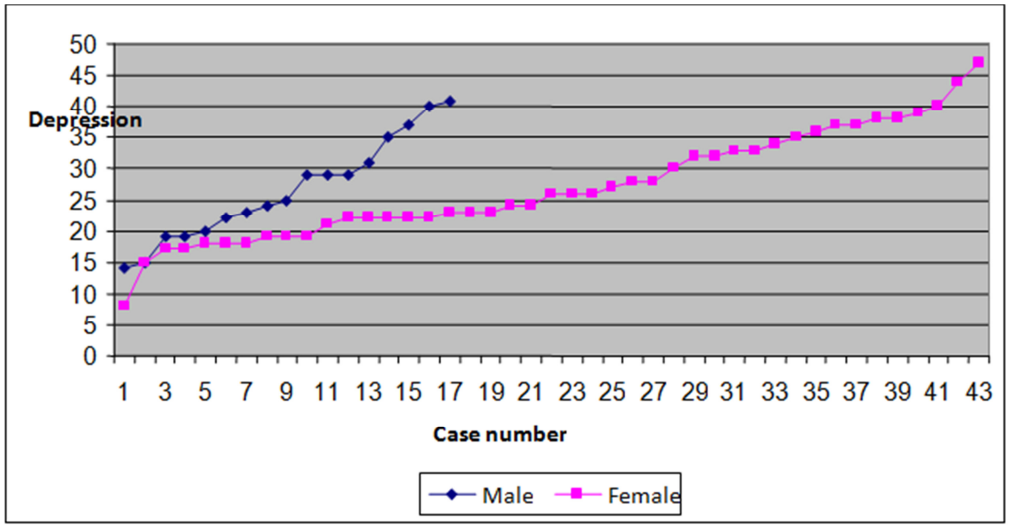
It is very interesting that the level of anxiety and depression in patients with neurosis depends of the gender. As shown in table 3 the mean BDI scores or female was 31 points while for male was 25 points. This finding is consistent with a study published in 2005 year by J.B. Williams who found that neurotic women in 37 different towns in United Kingdom scored consistently higher on measurements of depression than men. The fact that such high scores were found across a variety of socioeconomic classes and cultures, but specific to one gender seems to support a genetic basis for the disorder. Is possible that genetic factors predispose an individual to depression and neurosis, and outside factors such as socioeconomic status trigger the symptoms.

Table3.The scores of BDI in neurotic female and male patients

Depression	**Male**	**Female**
N	17	43
Mean	25	31
Standard Deviation	8.24	8.64
Minimum	14	8
Maximum	41	47
Pearson Correlation	1	0.847**

**Correlation is significant at the 0.01 level

From Figure 3 we can see that the correlation of statistical significance by Pearson between BDI and gender is at the level of 0.01.



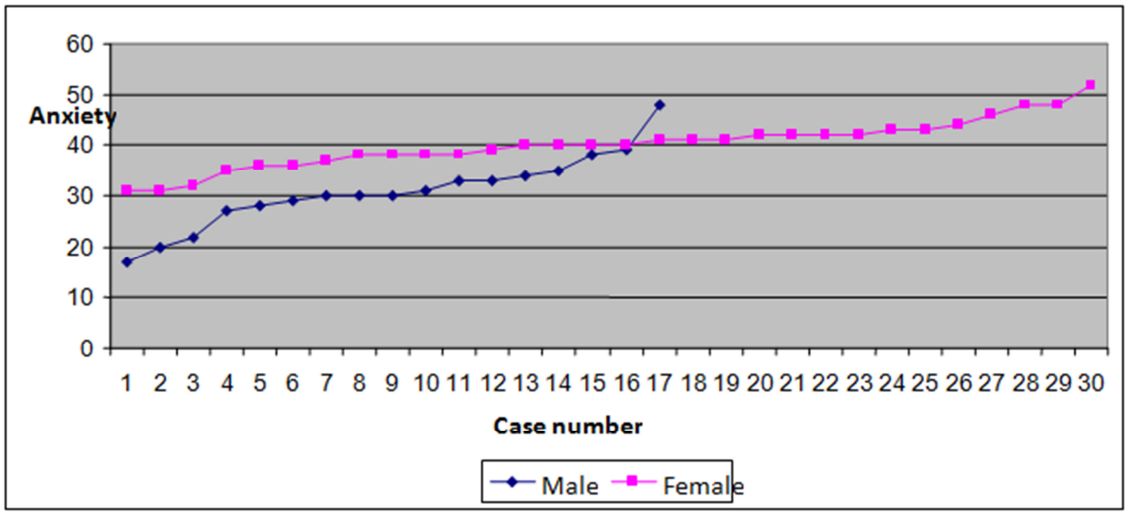
Figurec3. Correlation between BDI in neurotic female and male patients

At the same time anxiety as a psychological state is more specific for women (Table 4)

Table4. The scores of BAI in neurotic female and male patients

Anxiety	Male	Female
N	17	43
Mean	30	38
Standard Deviation	7.35	7.92
Minimum	17	20
Maximum	48	52
Pearson Correlation	1	0.942**

**Correlation is significant at the 0.01 level



Figurec4. Correlation between BAI in neurotic female and male patients

From the Figure 4 is clear that female patients had problems with anxiety symptoms during the neurotic disease. Other comparisons, including a break down by age, place of leaving, education and marital status were not significant.

Discussion

We deal with the world by using our previously acquired knowledge of the world, in coordination with our inherited capacities, to solve the problem presented to us as efficiently as possible. When we are up to the task, our emotional responses are kept to within tolerance limits. When we are not to the task, we experience anxiety. This anxiety may develop into other emotional responses as well, depending on the details of the problem, our inherited traits and our learned patterns of response to problematic situations.

When we experience repeated occasions of stress and anxiety, we begin to develop patterns of behavior and cognition designed to avoid or otherwise mitigate the problem, such as vigilance, escape behaviors and defensive thinking (Marcs, 2006). These may develop into an array of attitudes which themselves produce anxiety, anger, sadness…

So disorders that are considered a neurosis or neurotic disorder include a side variety of emotional and physical symptoms or manifestations. Anxiety and fear are common symptoms to many disorders that are considered a neurosis or neurotic disorder. This kind of disorder can negatively affect a person's ability to function effectively in activities of daily living, such as going to work and school, caring for family and thinking care of basic needs. At the same time it has been recognized that anxiety and depression area central clinical feature of neurotic disorder They are prevalent symptoms in neurosis and patients have greater morbidity, as assessed by a number of indices, including symptom severity, the chronic phase of illness, functional impairment and suicide risk (Oberg and Mares, 1980).

Our data in line with previous report showing higher prevalence of anxiety and depressive symptoms in neurotic patients to comparison with controls (Taylor, Koch and McNally, 2002). The precise explanation of these symptoms in neurotic patients has not been fully established, but some studies have suggested that depression severity is related with the progression of the disease, while other studies have described depression since the early stages of the neurotic disease (Allen, 2003). In our study the BDI scores was related with the progression of neurotic disorder. The Beck depression scale performed in order to determine the severity o the depressive symptoms at the patients was significantly higher compared to the healthy subjects.

Also we found significant difference in BAI scores between neurotic patients and control subjects. The mean BAI score was 35 and most of patients had moderate anxiety BAI scores. In fact anxiety has been frequently found in patients with neurosis with a prevalence ranging from 14% to 35%. Now is clear that the explanation of anxiety and depression in neurosis has relied on psychological aspects (Allen, 2003). It is possible that the increased depressive and anxiety level in neurosis is related with the psychological consequences resulting from progressive psychological deficits and hence, limitations imposed by some neurotic disease.

The depression and anxiety levels in female patient relatives were higher than in those of male patients. It is known, in the general society, depression and anxiety are more frequent in women. It is also reported that depression and anxiety are frequent in women with some form of neurotic disorder (Pillar and Sergeant, 1999). In our study, relatives of female patients had high levels of depression and anxiety scores, a result that is in concordance with the literature.

It seems clear that patients with neurosis who have depressive and anxiety symptoms deserve early and robust intervention. This is very important, because as depression and anxiety may negatively impact quality of life of the neurotic person, the recognition and treatment of these psychological syndromes are of paramount importance for a better neurotic outcome and an improved quality of life.

Conclusions

To our knowledge, this is one of the first studies in which the relationships between the neuroses and the symptoms of depression and anxiety have been investigated in our population. In this study we found that neurotic symptoms are strongly associated with anxiety and depression. These findings are accord with previous studies in clinical and non – clinical settings (Cox @ Kong, 2002).

In the study significant correlation were noted between: (1) the BDI and neurosis; (2) the BAI and neurosis. So these results indicate that the BDI and BAI include symptoms of general emotionality. Upon closer examinations of the types of questions in the two questionnaires studied here, it is also noted that BDI and BAI include questions that relate to somatic complaints and the general symptoms associated with overt emotionality.

In conclusion, the mental state neurosis is strongly associated with depressive and anxiety symptoms among participants in this clinical population. The clinical validity of these findings is strength by the relationships of these symptoms to self – reported lifetime mental disorders and use at the health services for psychiatric reasons. As depression and anxiety may negatively impact quality of life and reduce the compliance of the patients to the treatment, the recognition and treatment of these psychiatric disorders are of paramount importance for a better neurotic outcome and an improved quality of life. We propose some non-pharmacological treatment such as psychological support, relaxation training, music therapy, light therapy and some biofeedback modalities in order to reduce the level of stress. These kinds of treatments help to elevate the patient's sense of purpose, reduce anxiety and depression, facilitate a positive association with the hospital experience, connect patients with one another and build a sense of community within the hospital.

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