The Correlation between Depression, Anxiety and Treatment Motivation in Patients with Affective Disorder

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Abstract

Background: The relationship between affective disorder and symptoms of anxiety and depression is very complex. Although a variety of self-report measures are beginning to be utilized to access anxiety and depression in patients with affective disorder. Also evidence shows that individuals with affective disorder experience better functioning and reduced symptom if they follow recommended psychiatric treatment. Learning to live with a continuous, episodic illness is a huge challenge for people with bipolar disorder and their family.

Objective: The relationship between affective disorder and symptoms of anxiety and depression is very complex. Although a variety of self-report measures are beginning to be utilized to access anxiety and depression in patients with affective disorder. Also evidence shows that individuals with affective disorder experience better functioning and reduced symptom if they follow recommended psychiatric treatment

Methods: The study involved 80 patients (32 males, 48 females) with an average age 44,5 years, hospitalized in the Psychiatric Hospital in Skopje and the Department of Psychiatry of Clinical Hospital in Tetovo, with a clinical diagnosis of affective disorder. The diagnosis of affective disorder is set against the classification DSM – V (Diagnostic and Statistical Manual of Mental Disorder). All subjects were under adequate psychopharmacological treatment. The Hamilton Anxiety Rating Scale (HAM-A), Hamilton Depression Rating Scale (HAM-D) and Treatment Motivation Questionnaire (TMQ) were applied to the entire population.

Results: From the results it is evidenced that the patients with affective disorder have higher scores on the HAM-A and HAM-D. The correlation was positively significant at the level of 0.01. Also there was significant relationship between treatment motivation and the type of disorder ($F_{2, 77} = 11.902$; $p<0.00$).

Conclusions: Depression and anxiety are common in patients with affective disorder and can interfere with their response to treatment.

Key words: Affective Disorder, Depression, Anxiety, Treatment Motivation, Quality of Life

Introduction

Bipolar disorder, also know as manic-depressive illness, is a brain disorder that causes unusual shift in a person's mood, energy and ability to function(Birchwood, 2000). The mood episodes associated with the disorder persist from days to weeks or longer and can be dramatic witjh period of being overly high and irritable to periods of persestent sadness and hopelessness.

Sever changes in behavior go along with mood changes. These periods of hoghs and lows, called episodes often recurring over time or they may occur together in a so-called mixed state. Often people with bipolar disorder experience periods of normal mood in between mood episodes (Verdoux and Bourgeois, 1993)..

This kind of disorder is characterized by alternating manic episodes in which the individual feels abnormally euphric, optimistic,full with emergy, sometimes irritable, engages in multiple activities, may develop thinking that is out of step with reality and depressive periods in which the individual feels sad, hopeless, guilty and sometimes suicidal. In fact, there is some evidence that depression phase is much more commom than periods of mania in this illness. Bipolar depression can be much more bistressing than mania and because of the risk of suicide, is potentially more dangerous. Mixed status, where both manic or hypomanic symptoms and depressive symptoms occur at the same time are ofen presented at the patients.

It is known that changes are a normal part of life. However, with bipolar disorders, the awings are more extreme. They become so intense, that the person does not realize that he/she is not behavings normally or the person suffers as much from depression that he/she is paralyzed and overwhelmed by suicidal thoughts. Also a large number of studies report that individuals who have experienced affective disorder often feel depressive and anxiety. These disturbances can be seen before to the development of psychosis (Neale et al., 2005) and also appear to be implicated in relapse. Depression was found, in up to 50-60% of patients with affective disorder (Johnson, 2008).

The symptoms of depression in affective disorder vary slightly from typical profile of primary depression. The patient shows 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 affective disorder, depression is associated with a poor quality of life as well as lower survival.

Anxiety was also frequently reported in patients with affective disorder (Cosoff and Smith, 1980). The presence of panic attacks, significant anxiety, nervousness, worry or fearful avoidance of activities in addition to periods of depression and mania or both together. Bipolar disorder and anxiety has been associated with decreased functioning and quality of life.

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 increased effort by objectively their evaluations with use of such instruments as the Beck Depression Inventory (BDI), Hamilton Rating Scale (HAMD or HAMA) and Sung. In general, these studies argue against the contention that measures of depression, anxiety and affective disorder are dependent.

On the other hand, empirical evidence shows that individuals with affective disorder have better functioning and reduced symptoms if they follow recommended psychiatric treatment (Perkins, 1999; Kampman and Lehtinen, 1999). Understanding and measuring the components of treatment motivation in people with affective disorder are complicated by the features of their psychopathology, as well as the kinds of interventions they tend to receive. In patients with major mood disorder, depressive symptoms can interfere with internal motivation. Patients with manic symptoms interfere with external treatment motivation. Treatment motivation has been predictive of adherence to medications (Frank and Goering, 1994; Compton and Nemeroff, 2000).

Treatment of bipolar disorder depends upon the specific forms of behavioral disorder. Medication is the most effective treatment in affective disorder. A combination of mood stabilizing agents with anxiety medications and antidepressants may be used to regulate manic or depressive episodes.
Against this backdrop, three objectives are raised for this study:
1. To determine the relationship between anxiety and affective disorder among the clinical subjects;
2. To investigate the relationship between depression and affective disorder among the clinical subjects;
3. To establish the treatment motivation in patients with affective disorder.

Methods
The cross-sectional study included 80 (32 males and 48 females) consecutive patients with affective disorder. The mean age of patients was 44.5 years. These patients are regularly attended at the Psychiatric Hospital in Skopje and the Department of Psychiatry of Clinical Hospital in Tetovo which are part of the public National Health Service system. After their appointment with their psychiatrists, patients were invited to participate in this study. Also these subjects are not asking part in any clinical trial. No patients refused to participate. Affective disorder was diagnosed according to DSM-V diagnostic criteria (APA, 2013). Demographic and clinical data obtained. The patients have been treated with lithium carbonate, antipsychotics, antidepressants and anxiety medications. The patients were assessed to participate with the scales after start of treatment. All subjects received verbal and written information from the investigators about the purpose and design of the study.

Ethical Permission Guiding for Study
Ethical approval was obtained and informed consent obtained from all the participants prior to the study.

Instruments
The instruments were used to collect data for the study. All the instruments do have high validity which makes them relevant and useful for the study.

Anxiety
Anxiety was evaluated with Hamilton Rating Scale (HAMA). This is a 14-item, clinician rated scale that includes both psychological and somatic symptoms of anxiety and can been completed in 10-20 minutes (Hamilton, 1995). The respondent is asked to rate how much he or she has been bothered by each symptoms over the past week on a 5-point scale ranging from 0 to 4. The items are summed to obtain a total score that can range from 0 to 56. If the score is to eight points there are no indications of anxiety. Mild anxiety is suggested if the score is between 9 to 16 points. HAMA suggests moderate anxiety symptoms of the score is between 17 and 24 and severe anxiety symptoms

if the score is between 25 and 56. The scale has been found to be valid and reliable, with Cronbach's alpha of 0.753.

Depression

Hamilton Rating Scale for Depression (HAMD) is regarded as the "gold standard" for assessing severity of depressive symptoms in patients with mood disorders (Hamilton, 1995). The 17-item version was employed in the present study. In this version eight items are scored on a 5-point scale, ranging from 0 to 4; total scores range from 0 to 50. The standard cutoffs are: 0-8 indicates no depression symptoms; 9-16 indicates mild depression; 17-24 indicates moderate depression and 20-50 indicates severe depression. The validity of the scale was Cronbach's alpha was 0.834.

Treatment Motivation

Treatment Motivation was measured using the Treatment Motivation Questionnaire (TMQ). The Treatment Motivation Questionnaire (TMQ) is a 26-item scale that was originally designed to measure dimensions of the person's motivation for treatment. TMQ response categories comprise a seven-point Linker scale, ranging from 1(not at all true) to 7(very true). Cronbach's reliability for TMQ was 0.742.

Procedure and Data Analysis

All the participants completed the three questionnaires HAMA, HAMD, TMQ and demographic variables (age, gender). The statistical analyses were conducted using Statistical Package for the Social Sciences (SPSS) version 17. Correlation analysis (one-way ANOVA) was employed to understand the relationships between anxiety, depression and motivation for treatment in patients with affective disorder.

Results

80 clinical subjects were selected for the study, 40% (n=32) of the patients were males while 60% (n=48) were females. Most of the patients with affective disorder had middle and high level depression. HAMD scores ranged from 0 to 50. After scores of the entire samples were subdivide into three categories: 20% of patients had mild depressive symptoms (score 9-16), 51% had moderate depressive symptoms (score 17-24) and 29% had severe symptoms (score 25-50). The level of anxiety was also high among participants. HAMA scores ranged from 0 to 56. Upon subdividing the scores into three categories: 18% of patients had mild anxiety (score 9-16), 51% had moderate anxiety (scores 17-24) and 31% had severe anxiety symptoms (score 25-56).

As shown in table 1 subject with history of affective disorder scored higher both in HAMA and HAMD. The mean HAMD score in patients was 23.00 points, while the mean HAMA score was 20.00. Also our patient group had high motivation for treatment. The mean TMQ score was 114.00 points.

Table1. **Mean (standard deviation) HAMD, HAMA and TQM scores for patients with affective disorder**

Measure	HAMD	HAMA	TQM
Mean	23.00	20.00	114.00
Standard Deviation	5.154	7.25	16.59
Mode	27.00	20.00	96.42
Variance	26.67	52.69	275.46
Minimum	13.00	6.00	73.00
Maximum	44.00	32.00	154.00
N	80	80	80

Obtained results confirm that depression and anxiety are present in all patients with affective disorder. A one-way ANOVA revealed a significant main effect of group on the depression scale ($F_{2, 77} = 17.904$, p=0.000). Also from table 2 we can see that with one-way ANOVA revealed a significant effect of group on the anxiety scale ($F_{2, 77} = 22.403$, p=0.000). With the same statistical method we observed that patients with affective disorder had been motivated to attend and adhere to treatment ($F_{2, 77} = 11.902$, p=0.000).

Table2. Summary of One way ANOVA between depression, anxiety and motivation for treatment

<table>
<tr><td colspan="7" align="center">ANOVA</td></tr>
<tr><td></td><td>Source of Variation</td><td>Sum of Squares</td><td>df</td><td>Mean Square</td><td>F</td><td>Sig.</td></tr>
<tr><td>Depression</td><td>Between Groups</td><td>668.889</td><td>2</td><td>334.445</td><td>17.904</td><td>.000</td></tr>
<tr><td></td><td>Within Groups</td><td>1438.311</td><td>77</td><td>18.679</td><td></td><td></td></tr>
<tr><td></td><td>Total</td><td>2107.200</td><td>79</td><td></td><td></td><td></td></tr>
<tr><td>Anxiety</td><td>Between Groups</td><td>1531.256</td><td>2</td><td>765.628</td><td>22.403</td><td>.000</td></tr>
<tr><td></td><td>Within Groups</td><td>2631.494</td><td>77</td><td>34.175</td><td></td><td></td></tr>
<tr><td></td><td>Total</td><td>4162.750</td><td>79</td><td></td><td></td><td></td></tr>
<tr><td>Motivation</td><td>Between Groups</td><td>5138.642</td><td>2</td><td>2569.321</td><td>11.902</td><td>.000</td></tr>
<tr><td></td><td>Within Groups</td><td>16622.908</td><td>77</td><td>215.882</td><td></td><td></td></tr>
<tr><td></td><td>Total</td><td>21761.550</td><td>79</td><td></td><td></td><td></td></tr>
</table>

From the Figure 1 is clear that patients with affective disorder manifested symptoms of anxiety and depression during the illness. Treatment depends upon correctly identifying the source of anxiety and depression, so at the same time all participants had increasing motivation to take medication.
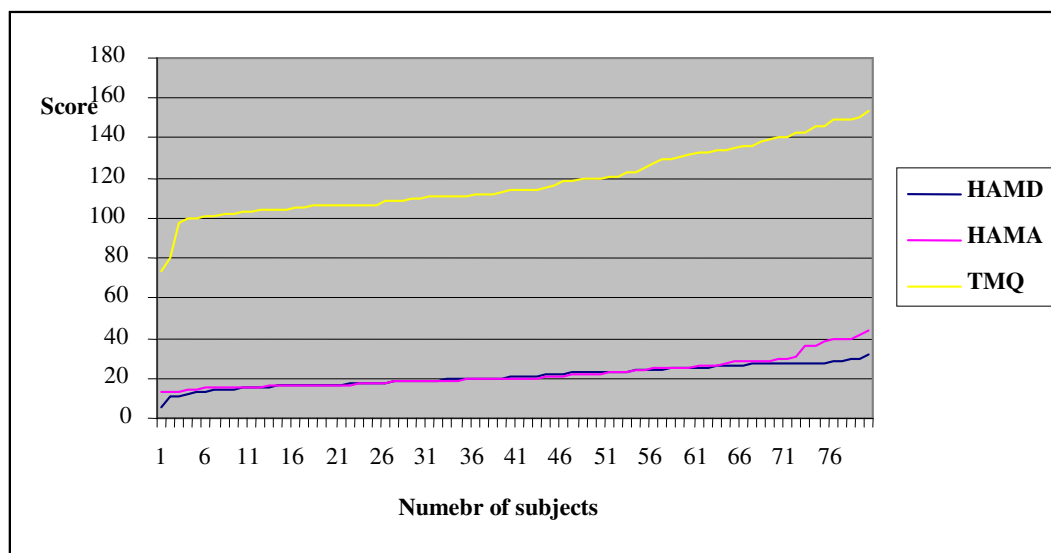
Figure1. The correlation between HAMD, HAMA and TMQ

Discussion

Most people feel anxious at times and have their ups and downs. It is natural for a mood to change anxiety level to be higher when a stressful or difficult event occurs.

But some people experience feelings of anxiety or depression or suffer mood swings hat are so severe and overwhelming that there interfere with personal relationships, job responsibilities and daily functioning. These people may be suffering from an anxiety disorder, depressive disorder or both (Fenton. and McGlashan, 2004; Swanson et al., 2006).

It is uncommon for someone with anxiety disorder, to also suffer from bipolar disorder. Many people with affective disorder suffer front at least one anxiety episodes at some point in their lives (Gross, 1999).

In relation to the period prior to acute psychosis, there is a consensus that majority of individuals experience symptoms of anxiety, depression and irritability up to 4 weeks prior to the appearance of positive psychotic symptoms (Suslow et al., 2003). These findings of emotional disturbance prior to positive psychotic symptoms suggest that there is an interaction between emotion dysfunction and psychotic symptoms.

Our data in line with previous report showing higher prevalence of anxiety and depressive symptoms in patients with affective disorder to comparisons with controls (Gross, 1998). The precise explanation at these symptoms in patients with affective disorder 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 state of the depressive disorder (Lenroot, Bustillo, Lauriello.and Keith, 2003). More than half of these patients had depressive symptoms prior to an acute relapse of their psychosis, perhaps suggesting that emotional disturbance was implicated in their relapse.

In the current study HAMA and HAMD correlated strongly with affective disorder. We found higher scores in the HAMD then HAMA in clinical patients with affective disorder. In our study anxiety and depression associated with disease severity, advance disease stages and worse performance in daily activities. Now is clear that the explanation of anxiety and depression in affective disorder relied on psychopathological aspects (Snaith, 1996). It is possible that the increased depressive and anxiety level in affective disorder is related with the psychological consequences resulting from progressive psychological deficit and hence, limitations imposed by affective disorder.

On the other hand, the treatment motivation among people with affective disorder has been shown to improve clinical outcomes, such as psychosocial functioning, reduced psychiatrist and emotional symptoms such as anxiety and depression. There is currently limited understanding of the psychological mechanisms underlying motivation for treatment among people with affective disorder. Treatment motivation could be key factor associated with persistence in psychosocial treatment and taking prescribed psychiatric medications (Bach.and Hayes, 2000; Olfson et al., 2000; Ryan, Plant and Malley, 1995). The term treatment motivation does not only refer to maintain a psychotropic medication, but also to participating in the array of mental health services available to people with affective disorder (Nageotte, Sullivan, Duan. and Camp, 2007).

During our research we found that our patients group had been more motivated to mental health treatment due to psychiatric stabilization and recovery that comes with the older years. Maybe motivation to mental health treatment leads to better out comes such as a decrease in symptoms and better global functioning. Treatment motivation also reduces costs and hospitalization in mental health system.

It seems clear that patients with affective disorder 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 person with affective disorder, the recognition and treatment of these psychopathological syndromes are of paramount importance for a better patient outcome and improved quality of life.

Conclusions
To our knowledge this is one of the first studies in which the relationships between the affective disorder and the symptoms of depression and anxiety have been investigated in our population. In this study we found that symptoms of affective disorder are strongly associated with anxiety and depression.

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

The majority of our research is that patients with affective disorder had been motivated for better mental health treatment. They try to recognize the importance of psychiatric medications conductions with psychosocial treatment. In conclusion, the mental state affective disorder 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. A combination of medication and psychotherapy is most helpful. The role of psychological treatments is to help person

cope with the experience of bipolar disorder and its effects. Better outcomes can be achieved with tsome kind of additional therapies, like cognitive behavioral therapy (looking at how the person thinks and what he/she does, which can ease depression and anxiety; interpersonal or social rhythms therapy focuses on the roles of relationship difficulties and changes in daily patterns for those with bipolar disorder. At the same time when families are kept involved, patients adjust more easily, are more likely to make good decisions about their treatment and have a better quality of life. Developing a balanced lifestyle can also help person to minimize the risk of relapse.

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