Patients with Posttraumatic Stress Disorder: Global Assessment of Functioning Scale

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SUMMARY
Posttraumatic stress disorder (PTSD) is the postponed or extended response to the provocative event or the situation of threatening or catastrophic nature. Global Assessment of Functioning Scale (GAF) is the standard method in the process of clinical assessment of the overall level of patient’s functioning. As such, it is widely used as the scale for the estimate of the level of disorders among patients with psychological, that is psychiatric disorders. The aim of this research is to determine the value of depression, anxiety, hopelessness and functioning in ambulatory treated PTSD patients, and the correlation between functioning, and anxiety depression, and hopelessness in the same group of patients. This prospective research is performed at the Department of Neurophysiology, Polyclinic for Neurophysiologic Disorders, Primary Health Center Tuzla in period from March to December 2008. The examined group consisted 50 (44 male) ambulatory treated patients who suffered from PTSD, with average age 50.5±5.6 years. In the analysis of anxiety, depression and hopelessness are used: Beck's Anxiety Inventory (BAI), Beck's Depression Inventory (BDI) and Beck's Hopelessness Scale (BHS). During the statistical analysis Spearman's coefficient of correlation were used. The majority of patients (38%) had a high level of depression, 82% had a difficult level of anxiety, and 56% had a difficult level of hopelessness. The level of functioning analyzed by GAF, significantly negatively correlated with the level of anxiety (r=-0.6196), and the level of depression (r=-0.6244), and the level of hopelessness (r=-0.5852). With assessment of the GAF in patients with PTSD we can very fast assess parameters such as anxiety, depression and hopelessness in different stage of patients treatment, and that may have a great importance for the further therapy strategy. The potential importance of the relation between the level of functioning analyzed by GAF with the level of anxiety, depression and hopelessness, is in the stage of fast assessment of convalescence or deterioration of patient’s psychically condition after the conveyed medicament therapy or/and psychotherapy.

Keywords: PTSD, Global Assessment of Functioning scale, GAF, post traumatic stress disorder, Beck’s inventory

1. INTRODUCTION:
Posttraumatic stress disorder (PTSD) is the postponed or extended response to the provocative event or the situation of threatening or catastrophic nature. Traumatic events that can trigger PTSD include violent personal assaults such as rape or mugging, natural or human-caused disasters, accidents, or military combat (1). Symptoms typically begin 3 months after a traumatic event, sometimes after a year. Once they start, severity and duration of illness varies. Some people recover within 6 months, while others suffer for a long time. Other physical and emotional disorders associated with PTSD are depression, addiction on drugs and alcohol, anxiety disorder, headaches, gastrointestinal problems, problems with the immune system, balance disturbances, chest pain or discomfort anywhere in the body.

Global Assessment of Functioning Scale, GAF is the standard method in the approach in the clinical assessment of the entire level of functioning of a patient and it contains information about the axis V DSM IV and (2). As such, it is widely used as the scale for the estimate of the level of disorders among patients with psychological, that is psychiatric disorders (3).

However, the fact that there is relatively little empirical information about the adequateness of GAF in these purposes is surprising, so that actually there is not a confirmation of the value of the most prevalent use of GAF as standard part of diagnostic values of the experienced staff, especially in PTSD patients. So, the question with which parameters the level of functioning correlates the most strongly in patients with PTSD.

The aim of this research is to determine
- the value of depression, anxiety, hopeless and functioning in ambulatory treated PTSD patients, and
- the correlation between functioning, and anxiety depression, and hopeless in the same group of patients.

2. PATIENTS AND METHODS:
This prospective research is performed at the Department of Neurophysiology, Polyclinic for Neurophysiologic
Disorders, Primary Health Center Tuzla in period from March to December 2008. The examined group consisted of 50 (44 male) ambulatory treated patients who suffered from PTSD, with average age 50.5±5.6 years. In the analysis of anxiety, depression and hopelessness are used: Beck’s Anxiety Inventory (BAI), Beck’s Depression Inventory (BDI) and Beck’s Hopeless Scale (BHS). Beck’s Anxiety Inventory is ranked in the following range: min (without anxiety) (0-9), mild anxiety (10-16), moderate anxiety (17-29), severe anxiety (30-63). On the other hand, the BDI was ranked in the following scale: normal in range (0-10), mild behavioral disorders (11-16), borderline clinical depression (17-20), moderate depression (21-30), severe depression (31-40), and extreme depression (over 40). Beck’s Scale of Hopelessness (BSB) is a scale which has 20 questions and it establishes the level or the risk of the suicide. It is recommended as the backup instrument for the Beck’s Scale of Depression. The risk of the suicide is marked in the norms from minimal (0-3), low (4-8), mild (9-14) and severe (15-20) suicide. Global Assessment of Functioning Scale (GAF) is ranged on the scale from 0 – 100.

During the statistical analysis Spearman’s coefficient of correlation were used.

3. RESULTS AND DISCUSSION:
Parameters of BDI, BAI, BHS, and GAF in patients with PTSP are exposed in tab. 1. The majority of patients (38%) had a high level of depression (fig. 1), 82% had a difficult level of anxiety (fig. 2), and 56% had a difficult level of hopelessness (fig. 3). The level of functioning analyzed by GAF, significantly negatively correlated with the level of anxiety (r=-0.6196), and the level of depression (r=-0.6244), and the level of hopelessness (r=-0.5852). In an prospective study of 30 patients with severe depressive disorders, the values of Global Scale of Functioning (GAF) strongly correlated with Beck’s Scale of Depression (BDI) at all stages of following through cognitive-behavioral treatment of psychotherapy and it can serve as useful screening of the aggravation or improvement (6). The data from literature say that low scores of GAF are connected with depression, suicidal behavior and the lack of confidence (7, 8, 9, 10), and also for cognitive disorders in schizophrenia (11). It is discovered that for example the

<table>
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<tr>
<th>PARAMETER</th>
<th>Median</th>
<th>Percentile (25-75)</th>
<th>Min.</th>
<th>Max.</th>
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<tr>
<td>BDI</td>
<td>34.5</td>
<td>26.25-41.5</td>
<td>8</td>
<td>52</td>
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<tr>
<td>BAI</td>
<td>38.5</td>
<td>31.25-45</td>
<td>13</td>
<td>61</td>
</tr>
<tr>
<td>BHS</td>
<td>16</td>
<td>13-18</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>GAF</td>
<td>45</td>
<td>40-49.5</td>
<td>35</td>
<td>73</td>
</tr>
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</table>

Table 1. Parameters of Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), Beck’s Hopeless Scale (BHS), and Global Assessment of Functioning Scale (GAF) in patients with Posttraumatic Stress Disorder.
patient’s symptoms of the cognitive deterioration, hallucination, delusion, suspicion and inconvenient appearance are connected with greater global disorders (12).

Our results also confirmed that with assessment of the GAF in patients with PTSD we can very fast assess parameters such as anxiety, depression and hopelessness in different stage of patients treatment, and that may have a great importance for the further therapy strategy.

4. CONCLUSION:

Strong correlation is observed between level of functioning on one side, and anxiety, depression and hopelessness on other. The potential importance of the relation between the level of functioning analyzed by GAF with the level of anxiety, depression and hopelessness, is in the stage of fast assessment of convalescence or deterioration of patient’s psychically condition after the conveyed medicament therapy or/and psychotherapy.

REFERENCES


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Figure 5. Correlation of Global Assessment of Functioning Scale (GAF) with level of anxiety assessed with Beck Anxiety Inventory (BAI) in patients with Posttraumatic stress disorder. Sperman: r=-0.6196 (p<0.0001)

Figure 6. Correlation of Global Assessment of Functioning Scale (GAF) with level of of hopeless assessed with Beck Hopellesness scale (BHS) in patients with Posttraumatic stress disorder. Sperman: r=-0.5852 (p<0.0001)