

QUALITY OF LIFE AND DEPRESSION IN WAR-RELATED THE ENDURING PERSONALITY CHANGE AFTER CATASTROPHIC EXPERIENCE (F62.0)

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SUMMARY

GOALS: The authors' objective is to analyze Quality of Life (QoL) and depression in the Enduring personality change after catastrophic experience (F62.0).

SUBJECTS AND METHODS: In study we include 120 adult men, 60 subjects with diagnosis F62.0 according to ICD-10 (experimental group) and 60 adult men veterans without the diagnosis of F62.0 (control group). The subjects were assessed with the standardized psychometric instruments.

RESULTS: In subjects with Enduring personality change (F62.0) assessment of QoL shows differences in some segments that are important for further monitoring and analysis. The results of the depression in experimental and control group show statistical significance on level ($p < 0.05$) for baseline visit and follow-up visit.

CONCLUSIONS: The statistical relationship between level of combat exposure and war-related F62.0, depression symptoms and QoL, suggests that it may take time for the consequences of traumatic exposure to become apparent. Moreover, degree of exposure may be important in predicting the eventual development of symptoms and precipitation of F62.0. Continued follow-up will address the evolution of PTSD symptoms in war related PTSD. The results indicate the importance of further monitoring and analysis symptoms of depression in F62.0 and QoL.

Keywords: Enduring personality change (F62.0), Quality of life, depression, veterans.

BACKGROUND

More and more studies investigating the quality of life, as well as constellations of depression in psychiatric diseases. In the area of mental health service, one of the ways to demonstrate improved quality of treatment is by demonstrating improved quality of life of the recipients of such care. On the other hand, evaluation of patients' depression can potentially serve as a feedback information source to guide specific areas of improvement of care. The population of Bosnia and Herzegovina suffered massive and prolonged traumatization in the 1992-1995 war. Post-traumatic stress disorder (PTSD) is an

important and well-documented mental health outcome among seriously injured civilian and military survivors of trauma. Enduring personality change after catastrophic experience (F62.0) is a diagnostic category included in the International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10). The disorder F62.0 is characterized by enduring personality change, present for at least two years, following exposure to catastrophic stress. The stress must be so extreme that it is not necessary to consider personal vulnerability in order to explain its profound effect on the personality. The disorder is characterized by

a hostile or distrustful attitude toward the world, social withdrawal, feelings of emptiness or hopelessness, a chronic feeling of "being on edge" as if constantly threatened, and estrangement. Post-traumatic stress disorder (F43.1) may precede this type of personality change. Personality change after: concentration camp experiences, disasters prolonged captivity with an imminent possibility of being killed, prolonged exposure to life-threatening situations such as being a victim of terrorism or prolonged torture. These consequences of F62.0 include social, moral, forensic, and other medical aspects, and their monitoring enables more successful results in forensic psychiatry. Increase in prevalence and incidence of Posttraumatic Stress Disorder (PTSD) in comparison to the period before the war, as well as the increase of trauma related disorders in overall psychiatric morbidity represents a logical consequence of prolonged exposure to catastrophic traumatic events. Fifteen years after the war our mental health services are dealing mainly with Enduring personality change (F62.0) and co-morbid psychiatric disorders such as depression, substance-abuse disorders, other anxiety disorders etc. (1-4). Many epidemiological studies have shown that PTSD frequently presents a chronic mental health disorder that is extremely susceptible to secondary traumatization. According to National Co-morbidity Survey, fifty percent of all individuals who develop acute PTSD will develop Enduring personality change (F62.0). One third of these individuals will have persistent symptoms after ten years (5).

Scoring the Quality of Life Profile

Importance and Satisfaction scores range from: 1 (Not at All Important or Not at All Satisfied) to 5 (Extremely Important or Extremely Satisfied). Importance scores serve as a weight for converting enjoyment scores into quality of life scores: [QoL=(Importance Score/3) * (Satisfaction Score-3)] Thus, QoL Scores range from:-3.33 (Not at All Satisfied with Extremely Important Issues) to 3.33 (Extremely

Satisfied with Very Important Issues). QoL Scores above 0 reflect positive QoL, and those below 0 represent negative QoL. Items rated as especially important produce especially high QoL scores for items where high satisfaction is indicated. Similarly, items rated as especially important produce especially low QoL scores where lack of satisfaction is indicated. To illustrate, an individual who describes an item as Very Important (4) and reports being Very Satisfied (4) receives a QoL score of 1.33 ($4/3 * 4-3$). An individual who rates an item as Not Very Important (2) and reports being Not Very Satisfied (2) receives a score of -.67 ($2/3 * 2-3$). Items rated as being less important produce more moderate QoL scores. Overall, a score of > 1.50 is considered excellent and scores of .51 to 1.50 indicate a very acceptable situation. Scores of -.50 to +.50 indicate an adequate situation, scores of -.51 to -1.50 are problematic, and scores of <-.1.50 are very problematic (6). More and more studies that investigate the focus depression after catastrophic events such as war. Mental health comorbidity patterns and impact on depression among veterans and Chronic multisymptom illness Complex (7-9). There are many studies from Korean War, World War II, to the War on the territory of Bosnia which explores how depression after catastrophic events such as war, and QoL (10-12). Some studies over a long period of time to investigate depression after catastrophic events such as war, and functional comorbidities of multisymptom illness (13-15). The results of these studies indicate the importance of interventions (medical, social, psychological, legal) for the depression in this group of mental health service users. The aim of our study was to evaluate depression (symptoms of depression in F62.0), and the quality of life QoL (by MANSA= The Manchester Short Assessment of Quality of Life) in a group of veterans of the war in Bosnia and Herzegovina who were diagnosed with Enduring personality change (F62.0), and compare the results with those of veterans

who are not diagnosed with Enduring personality change (F62.0). This analysis was a part of the study of changes in status in veterans suffering from Enduring personality change (F62.0) (16). Modern approach to news and in the treatment of subjects with psychological consequences after catastrophic events such as war, include service for telepsychiatry. Telepsychiatric services and e-consulting it is able to serve not only PTSD but also wide range of other patient population. Continued examination and follow-up evolution of PTSD symptoms by Telepsychiatry service may be important in predicting the eventual development of depressive symptoms and precipitation of the enduring personality exchange after catastrophic experience in the war related PTSD (F62.0) (17).

Subjects

The total subjects in intensive study were 120 adult men, veterans with combat exposure who met the inclusion criteria for the study and who agreed to sign the informed consent for the participations in this study. Extensive study included 384 subjects- veterans with combat exposure, among them 64 (16,66%) with diagnosis F62.0. The target population to continue for this research have been veterans with combat exposure from war affected regions, currently residing in Bosnia-Herzegovina, Serbia, Montenegro or Croatia, between 30 and 60 years of age. In intensive study, regarding criteria for inclusion, we include 60 subjects with diagnosis F62.0. according to ICD-10. Participants were excluded: participants with psychotic symptoms, below 30 years of ages, over 60 years of ages, participants refused to participate in the study. Exclusion criteria were all psychiatric comorbid conditions, except depression. The subjects were divided in two groups (experimental group and control group), each comprising of 60 subjects. Experimental group consisted of 60 adult age 30-60, veterans, male psychiatric patients, war-related diagnosis of Enduring personality change (F62.0) according to

ICD-10. Control group consisted of 60 adult men, veterans without the diagnosis of Enduring personality change (F62.0) according to ICD-10.

METHODS

The subjects were assessed with the use of the following standardized psychometric instruments: PTSS-10, 20-item General Health Questionnaire (GHQ-20), HAMD-21, IES-90 R, MMSE, MINI, MANSA; Life Stressor List and a socio-demographic questionnaire. Post traumatic stress syndrom-PTSS scale and 21-item Hamilton Rating Scale for Depression-HAMD was used to assess state measures of symptom severity; from 3 months to 15 years after returning from the war. The subjects were screened for eligibility by the use GHQ-test (general health questionnaire) and psychiatric history and psychiatric examination; 21-item Hamilton Rating Scale for Depression-HAMD is a main instrument for assessing depression, additionally we use M.I.N.I 5.0.0 psychiatric interview (18) Mini mental state examination-MMSE (19), Manchester Short assessment of Depression-MANSA(20) MANSA QoL (Manchester Short assessment of Quality of Life) is a generic instrument for assessing quality of life. The MANSA is a brief instrument for assessing quality of life focusing on satisfaction with life as a whole and with life domains. Its psychometric properties appear satisfactory. and screening question on combat stress exposure PTSS-10 test (21). Eligible subjects were assessed by the use of following standardized psychometric instruments: Impact of Events Scale Revised-IES-90 R (22), and a socio-demographic questionnaire that was designed specifically for this study.

The subjects were not reimbursed and they received no other benefit in their treatment for participation in the study.

Statistics

The statistical program used for data analysis was GraphPad InStat 3.05 and SPSS-18 for Microsoft Windows. The

results including data analyses and descriptive statistics with the values of the control and experimental Enduring personality change (F62.0) group. The normality of the distribution of the each of the variables was tested with Kolmogorov-Smirnov's Z-value before a method of data analysis was chosen. Both descriptive statistics regarding years of formal education, monthly income, employment status and including scores on MANSA scale. (mean, standard deviations, median,

frequencies and percentages) and data analysis (non-parametric test that is used to compare two group means that come from the same population-MANOVA and Mann-Whitney's U-value) were calculated. HAMD: Summary statistics were produced for the total score at each visit and change from baseline to final visit for subjects in experimental group and control group.

RESULTS

Table 1. Parameters and Satisfaction scores on MANSA quality of life-scale, (mean±SD) in war veterans with or without Enduring personality change (F62.0)

Satisfaction (Quality of Life) †	subjects with Enduring personality change (F62.0) (n = 60)	subjects without Enduring personality change (F62.0) (n = 60)	p
with health*	5.92 ± 0.79	5.51 ± 0.64	>0.05
with mental health*	3.48 ± 0.86	6.16 ± 0.54	<0.05
with financial situation*	3.07 ± 1.07	6.02 ± 0.89	<0.05
with sexual life*	3.18 ± 0.76	5.92 ± 0.74	<0.05
with social life and functioning*	2.74 ± 1.24	5.74 ± 1.05	<0.05
Satisfaction with family*	3.26 ± 1.14	6.12 ± 0.23	<0.05
With life (general satisfaction) *	3.17 ± 0.98	5.68 ± 0.69	<0.05

†Manchester Short Assessment of Quality of Life, SPSS-18 for Microsoft Windows Mann-Whitney U statistics.,

*Likert-type scale with scores from 1 to 7; a higher score is reflecting a higher quality of life.

Mean values for satisfaction with health in the experimental group were 5.92±0.79 compared with 5.51±0.64 in the control group ($p > 0.05$). Mean values for satisfaction with mental health 3.48±0.86 in the experimental group were compared with 6.16±0.54 in the control group. ($p < 0.05$). Mean values for satisfaction with financial situation in the experimental group were 3.07±1.07 compared with 6.02±0.89 in the control group ($p < 0.05$). The mean values for general satisfaction with life were 3.17±0.98 compared with in 5.68 ± 0.69 the control group ($p < 0.05$). Satisfaction with social life and functioning in the PTSD group was 2.74±1.24 compared 5.74±1.05

with in the control group ($p < 0.001$). Mean score for Satisfaction with family in the experimental group was 3.26±1.14 compared with in 6.12±0.23 the control group ($p < 0.05$). Mean values for satisfaction with sexual life 3.18±0.76 in the experimental group were compared with 5.92±0.74 in the control group ($p < 0.05$). All Parameters and Satisfaction scores on MANSA quality of life-scale except health (Table 3), shows significant difference between the groups in war veterans with and without Enduring personality change. There was no significant difference between the groups in monthly income per family member in the non- Enduring personality

change (F62.0) group vs. the Enduring personality change (F62.0) group. There was no significant difference in the level of exposure to the war trauma between the two groups. There was no significant difference between the groups in the answers about

being prosecuted for the criminal offence and being a victim of the physical assault (questions 9. And 10. In the Past Year Have You Been Accused of a Crime? In the Past Year, Have You Been a Victim of Physical Violence?).

Table 2. The results of the depression in experimental and control group from Baseline to Final Visit 0-15 years

Depression †	subjects with Enduring personality change (F62.0) experimental group	subjects without Enduring personality change (F62.0) control group	p
Baseline Visit year 0-5	18.06±2.54	15.72±4.60	p <0.05
Follow-up Visit After 5-10 years	16.06±3.21	13.61±4.51	p <0.05
Final Visit After approximately 10 -15 years	14.11±3.75	13.49±4.23	p >0.05

† 21-item Hamilton Rating Scale for Depression-HAMD, SPSS-18 for Microsoft Windows, Mann-Whitney U statistics.

Mean values for Baseline depression 18.06±2.54 in the experimental group were compared with 15.72±4.60 in the control group ($p < 0.05$). Mean values for depression in Follow-up Visit After approximately 5-10 years 16.06±3.21 in the experimental group were compared with 13.61±4.51 in the control group ($p < 0.05$). Mean values for depression in Follow-up Final Visit After approximately 10 -15 years 14.11±3.75 in the experimental group were compared with 13.49±4.23 in the control group ($p > 0.05$).

After extensive study and comparison of both groups we have come to the conclusion: The results of the depression in experimental and control group show statistically significance on level $p < 0.05$ for Baseline Visit year 0-5 and Follow-up Visit After 5-10 years; also Final Visit After approximately 10 -15 years show not statistically significance.

After extensive study and comparison of both groups we have come to the conclusion that the subjects with Enduring personality change (F62.0) assessed satisfaction with all

components of the quality of life significantly lower than the subjects from the non-F62.0 group. T-test results of experimental and control group. As seen in Table 1; there was no considerable difference between the experimental group and the control group concerning depression. The two-tailed P value is 0.3973, considered not significant ($p > 0.05$). $t=0.8496$ with 118 degrees of freedom, 95% confidence interval; Mean difference = -0.6200 (Mean of Experimental Group minus mean of Control Group) The 95% confidence interval of the difference: -2.065 to 0.8252.

DISCUSSION

This study showed significantly differences in the depression in the period after the war (The results of the depression in experimental and control group show statistically significance on level $p < 0.05$ for Baseline Visit year 0-5 and Follow-up Visit After 5-10 years).

**Table 3. The results of the depression in experimental and control group in Final Visit
 After approximately 10 -15 years**

Test	Groups	N	Mean	Sd	t	p
21-item Hamilton Rating Scale for Depression- HAMD†	Experimental Group	60	14.11	3.75	0.8496	p=0.3973
	Control Group	60	13.49	4.23		

†The statistical program GraphPad Instat 3.05

Final Visit After approximately 10 -15 years show not statistically significance. It is the authors' belief that research data about relationship between level of combat exposure and war-related Enduring personality change (F62.0), depression symptoms and QoL should inform the decision makers in planning efficient services (health, mental health and social services) that can adequately serve the needs of this group of our patients and help reduce suffering, and somatic and psychiatric disability through improving the functioning of the affected individuals. Further research for depression assessment and Enduring personality change (F62.0) for war-related patients provides relevant information for the mental health professionals. Also is needed to confirm our results and to better identify the factors affecting the depression of veterans with Enduring personality change (F62.0) and also to help identify protective and risk factors for the persistence of Enduring personality change (F62.0). Results for answers about being prosecuted for the criminal offence and being a victim of the physical assault are similare with other research(23), also our results for depression in war-related post traumatic stress disorder and the enduring personality change after catastrophic experience are

correspondent with similare research (24). There were no significant differences between the two groups in exposure to traumatic events during the war. The results of this study are similare with other research, show no significant difference between the groups in monthly income per family member, also no significant difference in the level of exposure to the war (16,17).

CONCLUSIONS

The results indicate the importance of further monitoring and analysis which include all Quality of life and factors and the depression for the subjects in this study. The statistical relationship between level of combat exposure and war-related Enduring personality change (F62.0), depression symptoms and QoL at 15 years, suggests that it may take time for the consequences of traumatic exposure to become apparent. Moreover, degree of exposure may be important in predicting the eventual development of symptoms and precipitation of F62.0 enduring personality change. Continued follow-up will address the evolution of PTSD symptoms in war related PTSD. Depression assessment provides relevant information for the mental health professionals.

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