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IMPACT OF ACTIVE SPORT INVOLVEMENT ON PROCESSING OF TRAUMATIC EXPERIENCES WITH WAR DISABLED PERSONS

Introduction

Posttraumatic stress reactions have become a part of the every day life in Bosnia and Herzegovina, even at the time of war activities, and especially after the cessation of life threats as the conflicts stopped.

A particular problem is caused by low level of care from the side of society, its engagement in decreasing of PTSD prevalence rate in our country.

Being a part of population certainly exposed to series of traumatic experiences which directly resulted in their permanent disabilities, it is interesting to study degree of disorder and signs of disorder of PTSD among the war disabled persons.

Based on our experience from every day practice in the Mental health center showing the better results in processing of traumatic experience with those war disabled persons actively involved in sport activities organized within some war disabled associations, the concept of our research were designed to get better insight into the results in processing of traumatic experiences of war disabled as a direct impact of their active involvement in sport activities.

Taking into account the outcomes of numerous researched conducted on the war veterans from the Vietnam war which showed that 15, 2% war veterans has had continuously for 20 years after the war finished some symptoms of PTSD (Kulka et al., 1990), we take a freedom in claiming that that problem is still current eight years after the war in Bosnia and Herzegovina ended.

Objective of research

The objective of research is to examine how, to what extent and in which way, the processing of traumatic experience and active involvement in sport activities are mutually linked.

Sample

The research covered 256 respondents, all war disabled persons. The research was conducted during December 2002 in Zenica. Total number of war military disabled registered in Zenica municipality amounts about 1100. It means that the research covered around 25% of total population, subject of the research.

All examinees were war military disabled and the average disability degree was 47, 35% (SD 22, 35). 74% of the examined war disabled was not involved in any sport activities while 24% went actively in for sport.

Variables included into the research

According to the research conception, the following variables were defined through changeable measurement tools:

CISS-Inventory of behavior in stress situations (Endler and Parker, 1994)

Inventory comprises five sub-scales as follows: oriented behavior, emotions-oriented-behavior, and scale of avoidance, destruction-oriented-behavior and scale of social isolation.

The researches conducted on various populations show the existence of three factors. By analyses of factors done on our sample, twelve factors are extracted which could be furthermore reduced to three factors, although it was necessary to clear the questionnaire from such items “went astray” in some wrong sub-scales. Thus, on average, we reduced the inventory to first three sub-scales, namely, task-oriented behavior scale, emotion-oriented behavior and avoidance scale. Such structure of a questionnaire can be explained only by specificity of sample of the research.

Plausibility for the scales, which the researchers have been, achieved so far amount between.77 and.92, which is in accordance and plausibility we got for our three sub-scales:

Task-oriented	$\alpha = 0,8750$
Emotion-oriented	$\alpha = 0,8633$
Avoidance	$\alpha = 0,7703$

Number of the war traumatic events

Data on exposure of the respondents to the various traumatic experiences during the war have been compiled by the inventory of the war traumatic events, that we constructed based on the similar existing inventories, such as PSS, excluding from the inventories all those items related to traumatic experiences likely to be experienced by our respondents, e.g. wounding, direct or indirect life threatening, and others.

Alfa coefficient of plausibility with our sample is.84.

Current problems and difficulties

Data on exposure of the respondents to stressful situations in their present lives have been achieved through application of the inventory of current problems and difficulties the respondents are facing. The inventory was constructed based on similar inventory from the questionnaire PSS.

The questionnaire comprises 11 particles related to potential stressful events in every day life. The particles are of alternative type (if the assumptions are related to him/her, the respondent's answer is "yes"). Total result is a sum of answers.

Alfa coefficient of plausibility with our sample is.55.

Questionnaire of posttraumatic stressful reactions

The Horowitz scale is used (Impact of event scale, Horowitz at al, 1979), which examines two groups of PTSP symptoms, namely, intrusion and avoidance.

By factor analysis of the questionnaire applied to our sample we got three factors, which is in accordance with the results of other researchers who also found out that the items 8 and 15 could form separate factor.

The authors state that Alfa coefficient of plausibility for sub-scale of intrusion is.78, while for the scale of avoidance is.82. The coefficient of internal consistency for complete scale is.86.

The coefficient of plausibility we got on our sample is as follows:

Avoidance	$\alpha = 0,8039$
Intrusion	$\alpha = 0,8863$
Complete scale	$\alpha = 0,8912$

SCL-90

SCL-90 is a multidimensional inventory of symptoms based on self-estimation.

SCL-90 gives scores for nine dimensions of symptoms and three global indications of pathology. The dimensions of symptoms are: somatisation, obsessive- compulsivness, phobias, paranoid ideations, and psychoticism Global indicators are: global index of seriousness, index of disorders positive indicator and total positive indicator.

On our sample, the following Alfa coefficients are obtained:

scl.k1	Somatisation	0, 9126
scl.k2	Obsessive-compulsive	0, 8592
scl.k3	Social phobia	0, 7707
scl.k4	Depression	0, 9027
scl.k5	Anxiety	0, 8997
scl.k6	Aggression	0, 8278
scl.k7	Phobic anxiety	0, 8188
scl.k8	Paranoid ideation	0, 7195
scl.k9	Psychoticism	0, 8221
scl.kx	Zusatz: Skalenwert	0, 7759

Plausibility for internal consistency of complete scale is.98 with our sample.

General life tendency

Data on general life tendency are obtained based on the questionnaire constructed with the aim of information collection by the respondents on their satisfaction with life and life conditions.

Results of the research: Traumatic experiences during the war

As it could be seen from the sample description, all our respondents belong to the category of war disabled persons. The percentage of disability goes between 10% and 100%. All our respondents got their disability by wounding. That wounding is at the same time the most significant traumatic experience for them.

Apart from the wounding, we have at our disposal the data on other significant traumatic experiences our respondents

were exposed to during the war. Our data show that **72%** of respondents found themselves in the situation they considered as life threatening one, 21% experienced direct threats with death and injuries by the others, 10, 9% were tortured during the war, 4% were sexually abused, 9, 8% were captured and detained into the detention camps, **41, 8%** were exposed to the extreme starving that it seemed they could not survive, **61, 8%** witnessed the killing of other person, 8% witnessed the torturing of a beloved person, **76%** saw the corpse of a beloved person, **78, 9%** respondents stated that their beloved persons were severely wounded during the war, 9, 8 % that their beloved persons were sexually abused in the war, **39, 3%** that their beloved persons were tortured in the war, **49, 5%** that their beloved persons were captured and detained in the detention camp, 16, 7% stated that their beloved person went to the enemy's side, **68, 4%** were separated from their families, 21, 5 state that their homes were severely damaged during the war, 25, 1% that they lost considerable part of their property, 12% state that the enemy's soldiers broke by force their homes, 16% that they were expelled during and immediately after the war.

Current problems and difficulties:

48, 7% of respondents state that their current living conditions are bad, 9, 5 % that they are still displaced or refugees, **57, 5%** that their dwellings are still unsolved, 8% they do not have adequate personal documentation, **65, 1%** that their family members are unemployed, **57, 1%** that their debts exceed their monthly incomes, **58, 9%** have severe health problems, 38, 9 % their family members have severe health problems, **52, 7%** face the problems in education of their children, 17, 1%-still separated from their beloved children, 18, 9% some of their beloved persons are still considered missing.

General life tendency

The results show that **47, 3%** respondents are not satisfied with their life, **62, 3%** are not satisfied with their health condition, **62, 6%** are not considered themselves as happy persons, 33, 8% are not satisfied with their sexual life, 24, 7% are not satisfied with family life.

We also got the following outcomes: **53, 1%** respondents state they smoke too much, **12%** that they get often drunken, **34, 5%** they regularly takes tranquilizers.

Presence of PTSP

On IES scale posttraumatic stress reactions, 6, 5% respondents do not show any symptoms, 15, 3% belongs to PTSD risk group, 24, 7% show signs of disorder, and 53, 5% respondents show symptoms from the category of PTSD.

T-test of significance-Results

Applied tests of significance gave the following results for particular categories.

The results showing a significant statistical difference level are only presented here.

T-test for a criterion of the active involved in sport activity shows a significant difference between those actively involved in sport and those who are not, for the following variables:

Degree of permanent acquired disability, namely, war disabled that go in for sport have statistically significantly higher degree of disability (M= 55, 08) than those who do not go in for sport (M= 44, 91) at the level of significance of p=, 001

Life satisfaction- war disabled who go in for sport show statistically significant higher degree of life satisfaction (M= 3, 2879) in comparison to the disabled who are not engaged in sport activities (M= 2, 4785, at the significance level of p=, 000.

General presence of mental pathology symptom- the war disabled involved in sport show statistically lower degree of mental pathology symptom presence (M=2, 1971) than those war disabled who do not go in for sport (M=2, 4054) at the significance level of p=0, 30.

Degree of social phobia symptom: the war disabled involved in sport activities show statistically considerable lower degree of social phobia symptom (M= 2, 3502) that the war disabled who do not go in for sport (M=2, 5839) at the significance level of p=, 019.

Degree of depression symptom: the war disabled who go in for sport show statistically considerable lower degree of

depression (M= 2, 0851), than those who do not (M=2, 3698) at the significance level of p=, 015.

Degree of anxiety symptom: the war disabled who go in for sport show statistically considerable lower degree of anxiety symptom (M= 2, 1591) than the war disabled who are not involved in any sport activities (M= 2, 3956) at the significance level of p=.0, 50.

Degree of psychotic production symptom: the war disabled who go in for sport show statistically significant lower degree of psychotic production symptom (M= 1, 8515) than the war disabled who are not involved in any sport (M=2, 2077) at the significance level of p=, 000.

Pattern of facing stress- the war disabled involved in sport show statistically significant higher tendency to task-oriented behavior in facing stress (M= 50, 6364) than the war veterans who are not involved in sport (M=45, 0574) at the significance level of p=, 000.

For other variables included in the research there is no significant difference between the respondents who actively goes in for sport and those who do not.

Conclusions

From the results got in our research it is evident that involvement in sport activities with the war disabled is connected with the degree of traumatic events processing, particularly when it comes to general presence of mental pathology level, the symptoms of social phobia, depression, anxiety and psychotic production, and that sport activities are significantly connected with increasing orientation towards task in stress situations.

According to the researches in psychology of sport, which show lower prevalence of symptoms of depression and anxiety with the persons who actively go in for sport, we can potentially state that the involvement in sport activities with the war disabled category improves the traumatic experience processing. However, having in mind that we lack data on mental health status with our respondents going in for sport prior to their involvement in sport activities, we should not assume the interface between those variables. There is still open question whether the war disabled are actively involved in sport because

they are more mentally health or they are more mentally health because of their involvement in sport.

However, it is evident that the percentage of the war disabled being involved in sport (24%) is considerably higher than percentage we could expect in that population, which is about 4% for chronological age our respondents belong to.

It is also noticeable that the persons more frequently go in for sport as their permanent disability degree increases, which is not in accordance with our expectations where correlation between disability degree and sport involvement amounts r=189 with level of significance of p=, 002.

The war disabled who go in for sport are generally satisfied with their lives to greater extent regardless to their disability which makes them unable of independent performance of great part of every day activities. However, it should be pointed out that, although there are no clear indicators, involvement in sport preceded to higher degree of traumatic stress processing since it cannot be expected that usual mechanisms to cope stress for period longer than 8 years would enable a positive outcome of processing and long-term adjustment for the persons with higher degree of disability who are at the same time more exposed to series of problems and obstacles in every day life.

According to the results we got in our research we can state the following:

War disabled who go in for sport show higher degree of traumatic experience processing and higher degree of long-term adjustment; they are more satisfied with their life and show more adequate mechanisms for coping stress in stressful situations, although there are higher registered tendency of sport involvement with increase of permanent disability degree;

We could not prove connection between sport involvement and traumatic experience degree, and could not acquire statistically considerable connection between current problems and difficulties, regardless to the direction of connection, which possible leads to conclusion that sport involvement stimulates traumatic experience processing and long-term adjustments with the war disabled.

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Summary

The objective of research was to prove whether, to which extent and in what way, traumatic experience processing and active sport involvement are in mutual relation.

The research covered 256 respondents, all the war disabled. The total number of registered war disabled in Zenica municipality is about 1100. Thus, the research covered about 25% of the total population, subject of the research.

All respondents are the war disabled and average disability degree is 47, 35% (SD=22, 35). 74% respondents are not actively involved in sport, and 24% of them are.

The research includes the following variables: degree and kind of traumatic experience during the war, degree and presence of present life problems and difficulties, mechanisms for coping stress, degree of traumatic experience processing and degree of long-term adjustment.

The results of research show the following:

The war disabled go in for sport prove to have higher degree of traumatic experience processing and long-term adjustment; they are more satisfied with their lives and have more adequate mechanisms for coping stress situations, although the tendency of sport involvement becomes higher with increasing permanent acquired disability.

Between sport involvement and degree of experienced traumatic experiences, and current problems and difficulties we have not got any significant connection, regardless to the direction of connection, which possible could lead to the conclusion that sport activity stimulates traumatic experience processing and long-term adjustment with the war disabled.