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HOPELESSNESS, SUICIDALITY AND RELIGIOUS COPING IN CROATIAN WAR VETERANS WITH PTSD

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SUMMARY

Background: *Hopelessness is a strong predictor of suicide which is closely associated with PTSD in war veterans. Previous studies showed that if religious faith in war veterans was weakened it contributed to more extensive current use of mental health services. War trauma experience can weaken religious faith as well as strengthen it. It partly depends on religious coping which can be positive or negative.*

Subjects and methods: *In our work we present correlation between hopelessness (measured with Beck Hopelessness Scale) and style of religious coping (positive or negative, measured with R-COPE) in 111 Croatian war veterans with PTSD and 39 healthy volunteers.*

Results: *Veterans with PTSD were more hopeless than healthy volunteers, and had greater usage of negative religious coping. In PTSD group, less hopeless veterans showed greater extent in use of positive religious coping strategies.*

Conclusion: *These findings suggest that experts treating male combat veterans with PTSD should inquire about religious coping of the individual. Positive religious coping should be encouraged while negative religious coping should be addressed appropriately.*

Key words: *hopelessness - religious coping – suicide – PTSD - veterans*

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INTRODUCTION

There are millions of war veterans around the globe, many of whom are suffering from the psychological and/or physical wounds of war (Sher 2009, Bravo-Mehmedbašić et al. 2010, Kapfhammer 2011, Frančišković et al. 2011). The risk of suicide attempts among population with post-traumatic stress disorder (PTSD) is six times greater than in the general population and even higher in treatment seeking war veterans with PTSD (Kessler 2000). Hopelessness, developed in that population, presents a system of negative expectations concerning oneself and one's future life, and is a strong predictor of suicide (Keller & Wolfersdorf 1993).

Several studies have reported that religious affiliations, among other factors, can reduce suicidal behaviour in PTSD patients (Meadows et al. 2005, Oquendo et al. 2005, Colucci & Martin 2008). Moral and religious objections to suicide may serve as a protective factor against suicidal acts (Dervic et al. 2004, Lizardi et al. 2008). In our previous study we have found inverse correlations between spiritual well-being (SWB) on one side and suicidality on the other (Nađ et al. 2008). Hasanović & Pajević (2010) found that higher index of religious moral beliefs in war veterans enables better distress control, providing better mental health stability, and helping to overcome post-war psychosocial problems and socialization.

Construct of religious coping can be very helpful in elucidating the relationship between religion and mental health outcomes (Ano & Vasconcelles 2005). Pargament et al. (1998) developed a model that distinguishes religious coping methods based on an individual's approach to problem solving in the context of a relationship with God. Some types of religious coping are adaptive (i.e., positive religious coping) while other types are maladaptive (i.e., negative religious coping) (Pargament et al. 2011). Positive religious coping includes collaborative problem solving with God, helping others in need, and seeking spiritual support from the community and a higher power. Negative religious coping includes deferring all responsibility to God, feeling abandoned by God and blaming God for difficulties. Pergament hypothesized that positive religious coping may be associated with less psychological distress (Pargament et al. 1998), and negative religious coping may be associated with greater mental and physical health problems (Koenig et al. 1998, Pargament et al. 1998). Witvliet and colleagues (2005) found in 213 help-seeking veterans diagnosed with PTSD positive relationship between negative religious coping and depression, anxiety, and PTSD symptom severity. Recently, Berg explored the spiritual distress, PTSD and depression in Vietnam combat veterans and found inverse relationship between religiosity and severity of PTSD and depression (Berg 2011) .

According to present knowledge, we hypothesized that positive religious coping strategies will be associated with lower hopelessness and suicidality. So in this cross-sectional study following questions were

asked: (1) is there greater use of religious coping in veterans with PTSD than in healthy volunteers, (2) which kind of religious coping veterans with PTSD prefer, (3) is there any association between hopelessness/suicidality and positive and negative religious coping?

SUBJECTS AND METHODS

Participants

All war veterans who entered the study were outpatients at the Department for Psychiatry, General Hospital Virovitica, Croatia. Diagnose of PTSD was established by research psychiatrists using the Structured Clinical Interview for DSM-IV Diagnoses-SCID (First et al. 1995) and confirmed with Minnesota Multiphasic Personality Inventory-2 (MMPI-2) (Butcher et al. 1989). Exclusion criteria were comorbidity with dementia, alcohol and drug abuse disorder, and psychotic disorder. Of 150 veterans with PTSD approached, 122 fulfilled the criteria and were eligible for the study. Eleven patients did not complete the assessment forms, so the final sample consisted of 111 patients. Only subjects who completed all the study instruments fully and signed informed consent were included in the final analysis.

Comparison group (N=39) comprised from the medical staff of General Hospital Virovitica (physicians N=18, medical technicians N=20, and one cleaner) with no history of psychopathology and no treatment for psychiatric illnesses. All of them were men, and none of them participated in combat during the war in Croatia. They also filled in the study instruments and signed informed consent.

This survey was approved by Hospital Ethical Committee, and all included participants signed informed consent.

Instruments

Participants were asked to complete the Beck Hopelessness Scale (BHS), Religious Coping Scale (RCOPE), and self-report demographic questionnaire (informations on patients' age, gender, and level of education). Suicidal ideations and suicidal attempts were explored by questions from Mini-International Neuropsychiatric Interview (M.I.N.I.) (Sheehan et al. 1998).

The Beck Hopelessness Scale is a self-report instrument which entails 20 true-false statements designed to determine the extent of positive and negative beliefs about the future over the previous week. Beck originally created this scale in order to predict who might commit suicide and who would not. Each of the 20 statements is scored 0 or 1 with the total being calculated by summing the pessimistic responses for the 20 items. The total BHS score will range from 0 to 20 (Beck 1988). It is constructed for population of adults (17-80 year olds). Internal reliability is high (Pearson r=0.82 do 0.93 in seven normative groups). Test-retest coefficients of reliability are between 0.69 and 0.66. Suicidal risk is measured in following ranges: 0-3 minimal risk, 4-8 mild, 9-14 moderate, 15-20 severe suicidal risk.

Brief Religious Coping Scale (Pargament et al. 1998) consists of two subscales. The positive religious coping subscale (PRC) of the Brief RCOPE taps into a sense of connectedness with a transcendent force, a secure relationship with a caring God, and a belief that life has a greater benevolent meaning. The negative religious coping subscale (NRC) of the Brief RCOPE is characterized by signs of spiritual tension, conflict and struggle with God and others, as manifested by negative reappraisals of God's powers (e.g., feeling abandoned or punished by God), demonic reappraisals (i.e., feeling the devil is involved in the stressor), spiritual questioning and doubting, and interpersonal religious discontent. Each scale has seven items, scored on a 1-to-4 four-point Likert scale (1-not at all, 2-somewhat, 3-quite a bit, 4-a great deal). Mean scores for PRC and NRC can range from a minimum of 7 to a maximum of 28. Scores on the seven items for each scale were summed, with higher scores representing greater presence of the construct.

Mini-International Neuropsychiatric Interview (M.I.N.I.) (Sheehan et al. 1998) was designed as a brief structured interview for the major Axis I psychiatric disorders in DSM-IV and ICD-10. Validity and reliability studies have been done comparing the M.I.N.I. to the SCID-P for DSM-III-R and the CIDI (a structured interview developed by the World Health Organization for lay interviewers for ICD-10). The results of these studies show that the M.I.N.I. has acceptably high validation and reliability scores.

Questions explored persistence of suicidal attempts during life and in the past month, and possessing suicidal thoughts, wishes and plans, to be answered with yes and no.

Statistical analyses

We used the Kolmogorov-Smirnov test to examine whether distributions of our data were significantly different from normal distribution and whether our analyses resulted in statistically insignificant differences. We used the Chi-square test, the Student's t-test and the repeated measures test to assess the differences between the groups. Correlations were determined using Pearson's coefficient of correlation and partial correlations. SPSS 13.0 Statistical Package (SPSS Inc, Chicago, IL, USA) was used for all statistical analyses. The value of p less than 0.05 was considered significant.

RESULTS

Participants' characteristics

All participants were men, and Caucasians. The mean age in the group of veterans with PTSD (N=111)

was 46.37 years (range 33-62 years). The majority of them have high school education (N=75), 22 have elementary school, 14 have faculty education. Most of the veterans with PTSD (95.3%) declared themselves Catholics, 2 were atheists, and 1 was member of the Orthodox Church (Table 1).

In the group of healthy volunteers 62% were declared Catholics, 30% declared atheists, and 8% declared as members of other denomination. Twenty-three veterans with PTSD (21.9%) had a history of attempted suicide. In the month prior to the assessment 36.1% wanted to hurt themselves, 50.5% felt that it would be better they were dead, 46.8% were thinking about suicide, 16.5% had a plan for suicide, 12.8% attempted suicide (Table 1).

In comparison to the healthy volunteers veterans were less educated, were older (46.4±7.5 years vs. 30.8±7.4 years), significantly more often moderate and heavier suicidal risk (df=3; chi=86.2; p<0.001), more often former suicide attempts (df=1;chi=8.6; p=0.003), more feelings that it was better that they were dead (df=1; chi=17.7; p<0.001), more thoughts about suicide (df=1; chi=14.9; p<0.001), more thoughts about hurting themselves (df=1; chi=12.2; p<0.001), more often had a suicidal plan (df=1; chi= 3.8; p=0.05) (Table 1).

Veterans with PTSD had significantly lower scores on positive RCOPE scale (10.17 vs. 16.82; p<0.001), and negative RCOPE scale (6.25 vs. 8.62; p<0.001), and significantly higher BHS scores (13.07 vs. 2.51; p<0.001) than healthy volunteers (Table 2).

Table 1. Some participants' characteristics: comparison in level of education and suicidal risk between PTSD veterans and healthy volunteers (Chi square test)

		Group				df	Value	P
		Healthy Volunteers (N=39)		Veterans with PTSD (N=111)				
	Gender	Male	100%	Male	100%			
	Age	Mean 30.82	SD 7.384	Mean 46.37	SD 7.480			<0.001
		N	%	N	%			
Level of education	Elementary school	1	2.6%	22	19.8%			
	High school	20	51.3%	75	67.6%	3	45.6	<0.001
	Academy	0	0.0%	10	9.0%			
	University	18	46.2%	4	3.6%			
BHS level of suicide risk	Minimal	28	71.8%	7	6.3%			
	Low	11	28.2%	17	15.3%	3	86.2	<0.001
	Moderate	0	0.0%	32	28.8%			
	High	0	0.0%	55	49.5%			
During last month have you felt that it would be better that you were dead?	Yes	4	10.3%	55	50.5%	1	17.7	<0.001
Have you wanted to hurt yourself?	Yes	2	5.1%	39	36.1%	1	12.2	<0.001
Have you ever thought about suicide?	Yes	4	10.3%	51	46.8%	1	14.9	<0.001
Have you had a suicide plan?	Yes	1	2.6%	18	16.5%	1	3.8	0.05
Former suicide attempts?	Yes	0	0.0%	23	21.9%	1	8.6	0.003

Table 2. RCOPE and BHS scores in healthy volunteers and PTSD veterans

		Mean	SD	P
Positive RCOPE	Healthy volunteers	16.82	7.766	<0.001
	PTSD veterans	10.17	5.097	
Negative RCOPE	Healthy volunteers	8.62	2.208	<0.001
	PTSD veterans	6.25	4.902	
BHS	Healthy volunteers	2.51	2.372	<0.001
	PTSD veterans	13.07	5.373	

Table 3. Correlations between positive answers on suicidal questions (M.I.N.I.), BHS score and positive and negative RCOPE in veterans with PTSD (Pearson Correlation - p value*)

Answer with YES on questions:	BHS-score	Positive RCOPE	Negativ RCOPE
Former attempts	0.894	0.178	0.002
During last month have you felt that it would be better that you were dead?	0.000	0.510	0.000
During last month have you wanted to hurt yourself?	0.000	0.634	0.000
During last month have you thought about suicide?	0.008	0.237	0.001
During last month have you had a suicide plan?	0.426	0.085	0.000
During last month have you attempted suicide?	-0.077	-0.166	-0.339

*Correlation is significant at the 0.01 level (2-tailed)

Table 4. Correlations between BHS scores and Positive- and Negative-RCOPE scores in veterans with PTSD group and healthy volunteers (Pearson Correlation)

		BHS score: healthy volunteers	BHS score: veterans with PTSD
Positive RCOPE	p	0.028*	0.026*
Negative RCOPE	p	398	0.001**

* Correlation is significant at the 0.5 level (2-tailed); ** Correlation is significant at the 0.01 level (2-tailed)

Correlations

There is a significant inverse correlation between BHS score and positive religious coping (r=-0.212; p=0.026), and a positive correlation between BHS score and negative religious coping (r=0.312; p=0.001) in the veterans group. When correlations are controlled by age and education, we get similar significances - BHS score and positive religious coping score (r=-0.211; p=0.028) and BHS with negative religious coping score (r=0.312; p=0.001).

All PTSD veterans who answered with yes to questions about suicide (M.I.N.I.) have higher scores on negative religious coping scale and positive answers about suicide significantly correlated with negative RCOPE (Table 3).

There are different correlation coefficients in veterans with PTSD and in the healthy volunteers group. In both groups there is a significant negative correlation between BHS and positive RCOPE (higher values of positive RCOPE scores - lower values of BHS scores) (healthy volunteers: r=-0.352, p=0.028; PTSD veterans: r=-0.212, p=0.026). In veterans with PTSD, correlation between negative RCOPE and BHS score is significant (r=0.312, p=0.001), but in the healthy volunteers it is not (r=0.139, p=0.398) (Table 4).

DISCUSSION

In comparison with healthy volunteers, veterans with combat PTSD had significantly lower scores on both religious coping scales - positive and negative. Rarely utilization of religious coping could be explained by fact that the faith of some veterans with PTSD was weakened after combat experiences. Fontana & Rosencheck (2004) showed that combat trauma may result in increased or decreased faith. The degree of change appears to be associated with degree of trauma impact. Generally, trauma appears to lead to people turning to God, at least in the immediate aftermath (Falsetti et al. 2003). Experiences of killing others and failing to prevent death of others, along with PTSD and guilt, can weaken religious faith or motivate them to use negative religious coping strategies. On the other hand, in our previous research we found that the veterans with PTSD manifested more religious activities (read religious literature and attended church) in comparison with healthy volunteers (Nađ et al. 2008). Although people with PTSD may change their religious beliefs after experiencing the trauma in both trends – to increase or decrease religiosity, we did not explore the strength of religious beliefs before and after war; we measured the type of present religious coping strategies.

In our survey, more than 20% of veterans with PTSD have a former suicide attempt, and all veterans with PTSD have a greater suicidal risk and greater hopelessness in comparison with healthy volunteers. These findings confirm the fact about greater suicidal risk in combat veterans with PTSD (e.g. Kessler 2000). As expected, our results show that veterans with PTSD who express more usage of positive religious coping strategies are less hopeless. On the other hand, veterans with PTSD with greater hopelessness often use negative religious coping strategies. Suicidal ideations, but not suicidal plans or attempts, correlated with hopelessness measured with BHS. Furthermore, we found that

negative religious coping is associated with greater suicidality measured with M.I.N.I. Positive religious coping did not show this association. This is in concordance with Witvliet et al. (2004) who found in PTSD veterans that negative religious coping was related to depression, anxiety, and PTSD symptom severity. In the current literature positive religious coping has been mainly associated with Post-Traumatic Growth rather than with distress, which is typically found to be significantly associated with negative religious coping (Witvliet et al. 2004). Our results show more light on the construct of positive religious coping in the context of traumatic distress.

Because the cross-sectional nature of our study we cannot conclude the causal relationship between religious coping and hopelessness and suicidality. But there is indication that positive religious coping could be protective against severe distress after combat experiences (Koenig et al. 1998, Shuster et al. 2001). Loss of control and hostile nature of traumatic event generate existential questions like "Why me?" and "How God let it happen?" So, if the veterans with PTSD use positive religious coping, it can help in their healing process (Khouzam & Kissmeyer 1997, Powell et al. 2003).

Our study has some limitations. Beside its cross-sectional nature, the main limitations of this survey are different demographic characteristics of healthy volunteers and small sample size. Furthermore, we did not take into account the severity of PTSD or duration of treatment, but an advantage was the homogeneity of sample consisting exclusively from male veterans with combat PTSD.

CONCLUSION

These findings should encourage experts who work with veterans with combat PTSD to teach them how to utilize their own resources such as religious coping, and stimulate them to use positive collaborative religious coping strategies in prevention of hopelessness and suicidality. On the other hand, negative religious coping should be addressed in treatment setting appropriately. Further investigations that delineate the relevance of religious coping in PTSD may enhance current clinical assessment and treatment approaches.

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