

# Effects of Perceived Health Status on Health Care Utilization in Veterans With PTSD and Depression

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## Introduction

- Previous studies have linked comorbid PTSD and depression to increased health care utilization in veteran peacekeepers.
- In addition, research has linked PTSD and depression symptoms to poorer overall health.
- Indeed, previous studies have identified that sexually assaulted women with greater PTSD and depression symptom severity tended to report having more health symptoms.
- Self-perceived health status has not been investigated within the framework of increased healthcare utilization.
- The purpose of the current study was to determine whether self-perceived health status affects utilization of health care resources in veteran peacekeepers beyond the contributions of demographics and psychopathology.

## Method

- In 1999, a mail-out survey was conducted as part of the Review of Veterans' Care Needs Project.
- Data from 468 United Nations Peacekeepers from Canada (mean age = 52.4; SD = 10.6; 93% male) were analyzed for this study.
- Participants were asked to complete:
  - The PTSD Checklist – Military Version (PCL-M),
  - The Centre for Epidemiological Study-Depression Scale (CES-D),
  - A measure of their self-perceived health status (Likert scale; 1=good health, to 4=very poor health),
  - And to indicate the number of times they had visited different health care professionals in the past 12 months.

## Results

- Data were analyzed using stepwise regression.
- Controlling for age, gender, and number of deployments to a conflict theatre, PTSD severity,  $\beta = .24$ ,  $t = 3.95$ ,  $p < .00$ , and depression severity,  $\beta = .23$ ,  $t = 3.89$ ,  $p < .00$ , each made unique and significant contributions to the prediction of health care utilization.
- Importantly, self-perceived health status continued to make a significant contribution to the prediction of health care utilization,  $\beta = .21$ ,  $t = 4.64$ ,  $p < .00$ .
- Further investigation indicated that the interaction between PTSD and depression symptom severity had direct and indirect effects on health care utilization (see Figure 1), regardless of perceived health status.
- The interaction between PTSD and depression symptom severity indirectly promotes greater health care utilization through its influence on perceived health care status.
- Secondary analyses indicated that veterans with more severe PTSD and depression symptoms combined tended to view their health status as worse than others (see Table 1).

## Discussion

- Collectively, these results suggest that in addition to PTSD and depression in veteran peacekeepers contributing significantly to health care utilization, their self-perceived health status also plays a critical role.
- The results also indicate that self-perceived health status mediates the relationship between PTSD and depression symptom severity and health care utilization.
- From this, it appears that while PTSD and depression symptom severity directly influence veteran's use of health care resources, the effect of their perceived health status is also an important factor.
- Further research is necessary to distinguish what portion of the variance in perceived health status and health care utilization is reflecting psychological distress associated with psychological reactions to trauma, such as PTSD symptoms and depression, and what proportion is reflecting "organic" health problems.

Figure 1. Direct and indirect influences of PTSD and depression symptom severity on health care utilization through perceived health status

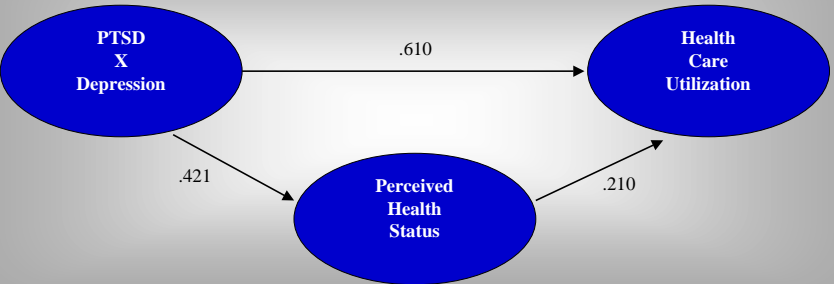


Table 1. Correlations between PTSD and depression symptom severity and self-perceived health status

		PTSD*DEP	PTSD	Depression
Perceived Health Status	Pearson Correlation	.416**	.414**	.420**
	Significance	.000	.000	.000
	N	472	472	472
PTSD*DEP	Pearson Correlation		.902**	.880**
	Significance		.000	.000
	N		473	473
Depression	Pearson Correlation			.685**
	Significance			.000
	N			473

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