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Articles

The moderating effect of the dispositional resilience on the relationship between Post-traumatic Stress Disorder and the professional quality of life of the military returning from the peacekeeping operations

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Abstract

Recent studies have highlighted the increased risk of exposure to PTSD among military personnel who are faced with extreme stressor events, the stress related to the peacekeeping mission, indicates that even peacekeepers could be at risk of developing PTSD independently of war attacks or wounds. The resilience's construct has a strong theoretical background, and in a pragmatic way has been shown to be a significant stress resistance resource in multiple groups, like those involved in military and security operations. The aim of this study was to examine the impact of resilience on the relationship between post-traumatic stress disorder (measured through the Davidson trauma scale) and professional quality of life. Our sample included 399 (138 females, 261 males) military who carried out peacekeeping operations between 2017 and 2019. In order to test the moderation hypothesis, a hierarchical regression analysis was performed, and a three-step regression model was carried out. The results that emerged in our study reveal that the moderating effect of resilience is evident in all the effects of on the professional quality of life.

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1. Introduction

Post-traumatic stress disorder (PTSD) that originally was also called "traumatic war neurosis", is classified by major diagnostic manuals as anxiety disorder, now it is included in disorders related to traumatic or stressful events that usually develops after exposure to a traumatic event (American Psychiatric Association, 2013; Brunet et al., 2007; Wittchen et al., 2009). From the clinical point of view PTSD is characterized by multiple symptoms that include flashbacks and nightmares, avoidance of triggers associated with trauma, increased levels of excitement, insomnia, anger, increased agitation and increased substance abuse (Forbes et al., 2008; Friedman, 2006). The vulnerability to PTSD is thought to result from an interaction between mental and biological susceptibilities, traumatic experiences during early childhood and the gravity of the trauma. (Leard Mann et al., 2009; Yehuda & Flory, 2007). During the last years PTSD has acquired a epistemology autonomy independent of war contexts and has attracted much attention on pathogenic mechanisms and possible novel therapeutic approaches. A study by Macintyre et al. (2017), highlighted the increased risk of exposure to PTSD among military personnel who are faced with extreme stressor events. Kinney (2012) proposed that the military personnel fighting today suffer from multiple wounds that are very different from those of veterans of the past wars. This is also due to advances in medical science and technology that allow more people to survive the attacks. According to Bruce et al. (2006) over 30% of war veterans present a PTSD following their military careers. However, another study (Maguen & Litz, 2006) has shown that between 5 to 9% of peacekeepers needed to treat anger, the management of hostility, depression or stress related to the peacekeeping mission, indicating that even peacekeepers could be at risk developing PTSD independently of war attacks or wounds (Vitzthum et al., 2009). This variable incidence of PTSD indicates that individuals respond differently to the same traumatic event.

Several studies (Bonanno, 2004; Bonanno et al., 2006) have shown that while most people cope well with adverse events others experience a temporary form of stress response. These reactions can be mild to moderate in severity and do not affect the individual's ability to function (Magnano et al., 2017a, 2017b, 2017c; Picardi et al., 2012).

Several studies have highlighted the impact that resilience has in the management of the traumatic event. Specifically, resilience concerns the ability of people to "bounce back" in the wake of stress or high-risk situations (Mancini & Bonanno, 2006; Rademarker et al., 2009; Richardson, 2002; Rutter, 1987). Several studies have looked at the role of military resilience (Pietrzak et al., 2010; Schok Kleber & Lensvelt-Mulders, 2010; Vogt & Tanner, 2007), underlining how it is an individual resource capable of moderating the effects of perceived

stress. In addition, to study on resilience among military: the study of resilience among military has been focused on behavioural health issues related to deployment (Leners et al., 2014).

The resilience's construct has a strong theoretical background, and in a pragmatic way has been shown to be a significant stress resistance resource in multiple groups, like those involved in military and security operations. Conceptually, psychological resilience is an individual disposition that develops early in life and is reasonably stable over time, though amenable to change and trainable under certain conditions (Bartone, 2006; Kobasa, 1979; Maddi & Kobasa, 1984).

Quality of life is a multidimensional concept that has been observed by scholars from different fields of investigation (medical, social and psychological). One area of quality of life that needs further study is the professional one. The professional quality of life of military personnel represents their self-evaluation of the quality of their own mental and physical health, social relations, and the environment in which they live and work (Vojvodić & Dedic, 2019). In particular, the quality of professional life corresponds to what subjects perceive in relation about both the positive and negative aspects of their work (Falco et al., 2013, 2014; Yadollahi et al., 2016). Hoge and colleagues found that those deployed to Iraq had greater post-traumatic stress disorder (PTSD) symptoms after duty than those deployed to Afghanistan (Hoge et al., 2004). Finally, according to Loscalzo et al. (2018), the literature on the well-being of peacekeepers is limited. There are few studies on the quality of life and psychological resources of the Italian Armed Forces. The purpose of this study is to examine the impact of resilience on the relationship between post-traumatic stress disorder and the quality of professional life of the multinational armed force after returning from peacekeeping operations in several countries.

1.1 Dispositional resilience, Post traumatic stress disorder and professional quality of life in military

The term resilience refers to a model of a positive type of adaptation in the context of danger or adversity and to the ability of a subject to react successfully to forms of acute stress, trauma or chronic adverse situations (Masten, 2000; Rutter, 2006). Reich and colleagues (2010) define resilience as the product of successful adaptation to adversity. More specifically, from the psychological point of view, dispositional resilience is defined in three ways: (1) the positive ability of people to cope with adversity, trauma, tragedy, threat or significant sources of stress and catastrophe; (2) the ability to restore homeostasis after an event that disrupts it; and (3) as an adaptive system that uses exposure to stress and catastrophe to resist future negative events (National School of Government, 2011). Furthermore, Southwick et al. (2014), have shown that resilience can be trained and applied as a proactive measure to reduce mental health problems.

It is noteworthy that the concept of resistance as defined by the ability of the subject to maintain a good functioning despite the perceived stress differs from that of resilience that refers to a disturbance in the functioning followed by a rapid recovery (Masten, 2001).

The main factors involved in resilience that can reliably predict positive psychological functioning and resilience ability after a very problematic event include the individual attributes (for example: to have a purpose in life, to use of positive coping strategies, to have capacity to find a meaning in traumatic experience, etc.), the close relationships (family and friends), the support from others and a good psychological asset, characterized by ego resiliency and by *hardiness* (Block & Kremen, 1996; Garmezy, 1985; Platania et al., 2017).

Hardiness is a dimension of personality that develops already in the first period of life and is stable over time. It is expressed through specific qualities that include commitment, control and challenge. The construct of hardiness implies the way in which both positive and negative experiences of life such as joy and pain are meant and interpreted. Individuals in high hardiness have a strong sense of life, a greater sense of control over it, and are more open to change and challenges, they also tend to interpret stressful experiences as a normal aspect of existence and as an interesting and useful part of life (Kobasa, 1979). Along this line of research, it has been shown that hardiness protects against the negative effects of stress (Bartone, 2000; Britt et al., 2001; Florian et al., 1995). According to Thomassen et al. (2018), there are lower levels of PTSD among soldiers with high psychological hardiness, while an avoidance-oriented coping style may represent a risk factor. In high-risk work such as the military, hardiness, considered as an independent personality trait and expression of the individual's personality (Coco et al., 2018; Rademaker et al., 2009), may serve to train and select resilient individuals that are able to resist under stress. In fact, most resistant people have the ability to control or condition the course of circumstances and to see new challenges as potential opportunities for growth and learning and they tend to give precise meaning to events, and behave proactively toward the environment and the happenings (Bartone et al., 2016; Westphal et al., 2008).

Quality of life (QoL) is a multidimensional concept that has been observed in different fields of investigation (social, psychological, medical, etc.). QoL concerns different aspects of the human existence including physical, cognitive, social and emotional function. However, researchers agree that the subjective perception of a person's quality of life can influence their psychophysical well-being in general (Platania et al., 2019, 2020; Sirgy et al., 2006; Tol et al., 2013; Veenhoven, 2014).

The World Health Organization (WHO) has defined the concept of health as a state of complete well-being that does not only relate to the absence of the state of disease or infirmity (Craven & Hirnle, 2014), but also concerns the subject in its entirety including the perception of the

cultural context and value system in which it lives, in relation to its objectives and expectations (WHOQOL, 1995).

The area of professional QoL has recently attracted much attention. The quality of professional life concerns the perception of subjects in relation to both positive and negative aspects of his/her own work (Magnano et al., 2017; Paolillo et al., 2016, 2017; Yadollahi et al., 2016).

Figley (1995) defines "Secondary Traumatic Stress" as the behavioural and emotional manifestations that emerge following the help provided to traumatized people as a reaction to exposure to painful events experienced by others. The same author associates secondary traumatic stress with "Compassion Fatigue" which represents the feelings of deep participation and understanding towards subjects affected by suffering, accompanied by a strong desire to relieve or even eliminate pain (Bride et al., 2007). In order to highlight the positive aspects that, Stamm (2002) introduced the concept of "Compassion Satisfaction", which represents the pleasure of having helped someone, of having contributed to the well-being of society and of having carried out in a positive and professional way the own work. Stamm's (2005) Professional Quality of Life Scale (ProQOL) was born from these theoretical indicators. In fact, this tool aims to measure the quality of life in rescue work using three dimensions: Compassion Fatigue, Burnout and Compassion Satisfaction (Figley & Roop, 2006; Palestini et al., 2009; Stamm et al., 2010). The Professional Quality of Life Scale has had a significant diffusion and has been used in order to analyse the positive and negative effects that affect the professional quality of life of workers operating in risky contexts (Pearlman & Caringi, 2009).

There are no prior studies linking resilience and professional quality of life (compassion satisfaction, burnout, and compassion fatigue / secondary trauma) among military returning from a peacekeeping mission but, given the repeated trauma witnessed by military, these findings from prior studies are particularly important.

1.2 Aims of study

Military related stressors often involve potentially traumatizing experiences and demanding situations that can lead to a range of mental health problems among the deployed soldiers (Bartone et al., 2012; Armistead-Jehle et al., 2011).

The aim of this study was to examine the impact of resilience on the relationship between post-traumatic stress disorder and professional quality of life. We assume, then, that the model produces the following answers:

H1: Dispositional Resilience is negatively related to Secondary Traumatic stress (H1a) and Burnout (H1b), whereas is positively related to Compassion Satisfaction (H1c).

H2: Dispositional Resilience buffers the negative impact of Post-Traumatic Stress Disorder (Intrusion, Avoidance/Numbing and Hyperarousal) on Professional quality of life: Compassion Satisfaction (H2a), Secondary traumatic stress (H2b) and Burnout (H2c).

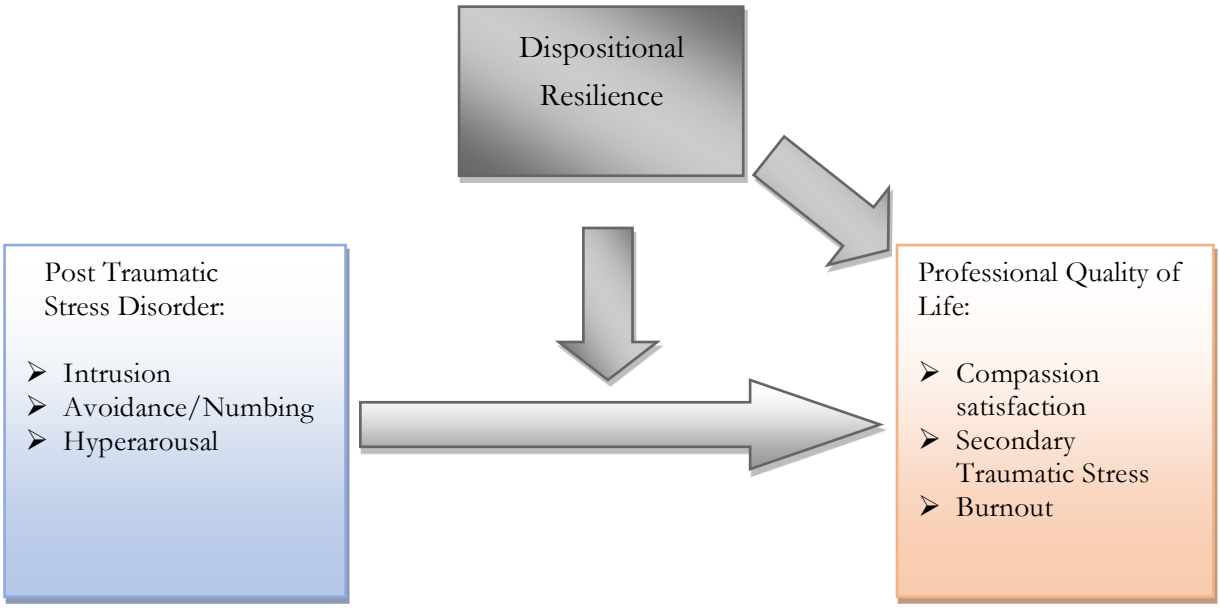

Figure 1. Model of Dispositional Resilience buffering relationship between Post Traumatic Stress Disorder and Professional Quality of Life.

2. Methodology

2.1 Participants

Data were collected through convenience sampling. Participants were 399 military (138 females, 34.6%; 261 males, 65.4%) personnel who carried out peacekeeping operation at least once in their careers, aged from 23 to 52 years (M_{age}=30.94; SD=5.45).

Most of them have high school graduation (275, 68.9%), work for the military infantry (154, 38.6%) and aviation (134, 33.6%) department, length of service from 1 to 10 years (224, 56.1%), carried out the peacekeeping operation in contexts with high operational intensity (e.g. Afghanistan, Iraq, etc.) (192, 48.1%), with a duration from 6 to 8 months (311, 77.9%) (see table 1).

The participation was completely voluntary. We administrated the tests individually and anonymously. The time to read and fill in the test ranged from 15 and 20 minutes. The Ethics Commission of the University of Catania reviewed and approved the survey.

Table 1. Characteristics of the sample

	Frequency (s)	Percentage %
Gender		
Female	138	34.6
Male	261	65.4
Marital status		
Married	191	47.9
Single	207	51.9
widower	1	0.2
Level of Education		
Middle School	6	1.5
High School	275	68.9
Bachelor's Degree	90	23.1
Master's Degree	28	6.5
Length of service		
From 1 to 10 years	224	56.1
From 11 to 15 years	79	19.8
Over 16 years	96	24.1
Duration peacekeeping operation		
From 3 to 5 months	61	15.3
From 6 to 8 months	311	77.9
From 9 to 12 months	13	3.3
Over 1 year	14	3.5
How long the mission has ended		
From 0 to 18 months	169	42.4
From 19 to 36 months	230	57.6

2.2 Measures

Dispositional Resilience Scale

The DRS (Kobasa, 1979; Kobasa et al., 1982) Italian validation by Picardi et al. (2012) is a self-completed questionnaire consisting of 15 items, scored on a 4-point scale ranging from 0 (not at all true) to 3 (completely true). The instrument includes positively- and negatively keyed items covering the three conceptually important Hardiness facets of commitment, control and challenge. In addition to a total score, the DRS yields scores for three subscales: Commitment, Control, and Challenge (Picardi et al., 2012, p. 233). Sample items are "*I really enjoy working on it*" and "*Trying to do your best at work will eventually pay off*".

Davidson Trauma Scale

Developed by Davidson in 1997 (tr. it. by Pieraccini et al., 1999), the Davidson Trauma Scale evaluates PTSD symptoms in subjects with a history of one or more extreme traumatic events. The primary purposes are to measure the frequency and severity of symptoms and to evaluate the effects of treatment. The DTS is a 17-item self-report measure that assesses the 17 DSM-

IV symptoms of PTSD. Items are rated on 5-point frequency (0 = "not at all" to 4 = "every day") and severity scales (0 = "*not at all distressing*" to 4 = "*extremely distressing*"). Respondents are asked to identify the trauma that is most disturbing to them and to rate, in the past week, how much trouble they have had with each symptom. The first five items specifically refer to re-experiencing or avoiding the disturbing event. The three DTS subscales (re-experiencing, avoidance/numbing, and hyper arousal) and separate subscales for avoidance and for numbing (McDonald et al., 2008) were computed by adding all subscale items together and dividing by the total number used in the scale. The DTS total score was computed by adding all item responses together, with a possible range of 0–136 and the cut-off used to indicate the presence of a disturbance is 40 points. Sample items are "*Have you ever had distressing dreams related to the event*?" and "*Did you feel distant or isolated from other people?*". In a previous validation study, the DTS revealed good internal consistency (alpha = 0.99), convergent validity (CAPS, *R* = 0.78), divergent validity (extroversion, *R* = 0.04), and concurrent validity, as well as strong test–retest reliability (Davidson et al., 1997).

Professional Quality of Life Scale (ProQoL)

The ProQoL is a tool developed by Stamm (2005, 2008) that measures the positive and negative aspects that affect the quality of professional life of those who are helping professionals.

The fundamental constructs on which the scale was built are Compassion Satisfaction and Compassion Fatigue. Compassion Satisfaction concerns the pleasure that comes from the same helping relationship and from being able to do one's job in the best way. The Compassion Fatigue consists of burnout, which refers to feelings of frustration and exhaustion, and the Secondary Traumatic Stress, concerning the negative feelings that can derive from traumas experienced during one's work and the consequent difficulty in separating professional life from private life. For our study the ProQoL 5 was used in the version proposed by Palestini et al. (2009) which presents itself as a contribution to Italian validation.

The ProQoL is composed of 30 tripartite items uniformly along the three dimensions identified and independent of each other. The answers to the items take place via a 6-point Likert scale (where 0 indicates "never" and 5 "very often"), the participants respond to the statements referring to the last 30 days experienced in the context of their work. The score is obtained by adding the values attributed to the various items belonging to the three dimensions after having made them unidirectional. Examples of items for each factor are: compassion satisfaction: "*I have positive thoughts and feelings about those I help and how I could help them*". Burn-out: "*I feel overwhelmed by the amount of work or the number of clients I have to deal with*". Secondary traumatic stress: "*I feel overwhelmed by the amount of work or the number of clients I have to deal with*".

2.3 Data Analysis

First, descriptive statistics, discriminant validity, reliability and correlations among the variables were computed. Then, Linear structural equations models were calibrated to test the hypothesized model on AMOS 25.0 (Arbuckle & Wothke, 1999). A confirmatory factor analysis (CFA) was used to test the model fit of the measurement model (Byrne, 2001), in order to produce a measurement model for the latent factors of social support and proactive personality. AMOS provides several goodness- of- fit indexes, including the chi-square ($\chi 2$), the comparative fit index (CFI), the non-normed fit index or NNFI, the Comparative Fit Index (CFI), the Root Mean Square Error of Approximation (RMSEA) and the Standardized Root Mean Square Residual (SRMR). Following the methods of Aiken and West (1991), Simple slopes used to probe and interpret statistically significant interactions based on recommendations from Aiken and West (1991) for high (+1 SD), moderate (M), and low (−1 SD) levels of perceived support. Interaction effects represent the combined effects of variables on the criterion or dependent measure. When an interaction effect is present, the impact of one variable depends on the level of the other variable. Other well-known analytical tools, such as correlations, were also used, implemented by using SPSS 26.0. In order to test the moderation hypothesis, a hierarchical regression analysis was performed. As described by Cohen et al. (2003), a three-step regression model was carried out. In the first step control variables (gender, during operation and how long the mission has ended) were introduced. In the second step, the Post Traumatic Stress Disorder (Intrusion, Avoidance/Numbing and Hyperarousal) and the Dispositional Resilience were added to the regression model. Finally, the interaction term (Post Traumatic Stress Disorder x dispositional resilience) was introduced in the third step. Before calculating the interaction terms, the predictor variable (Post Traumatic Stress Disorder) and the moderator variable (dispositional resilience) were centered in order to minimize multicollinearity among interactions and their individual components (Aiken & West, 1991). To identify the form of moderation, when significant, the regression model was plotted at two values of the moderating variable; that is one standard deviation above the mean and one standard deviation below the mean.

3. Results

The internal consistency of the model was estimated by Cronbach's alpha coefficient. Construct validity of the model was assessed through convergent validity and discriminant validity, indicating the internal structure of respective domains. Convergent validity was confirmed by, average variance extracted (AVE) values and composite reliability (CR) values. The reliability analysis confirmed that the final model demonstrated a high level of internal consistency as

Cronbach's alpha value was more than 0.7. The composite reliability values of constructs ranged from 0.62 to 0.96, signifying convergent validity (table 2).

Table 2. Descriptive statistic, Discriminant validity and Reliability

VARIABLES	*N*	*M*	*SD*	*ALPHA*	*AVE*	*CR*
Dispositional Resilience	399	28.6	4.5	.78	.76	.78
Intrusion	399	8.52	2.7	.79	.74	.75
Avoidance/Numbing	399	7.49	1.7	.81	.80	.79
Hyperarousal	399	10.5	2.8	.82	.79	.80
Secondary traumatic stress	399	4.10	.06	.87	.85	.85
Burn out	399	7.49	.05	.82	.81	.80
Compassion satisfaction	399	8.52	.06	.78	.77	.79

Note: ***ALPHA*** = Cronbach's alpha, ***AVE*** = average variance extracted, ***CR*** = construct reliability

Table 3. Correlations among all variables

	1	2	3	4	5	6	7	8	9	10
1. Gender (Dummy)	-									
2. Duration of operation <= 8 months (Dummy)	-.02	-								
3. Duration of operation > = 9 months (Dummy)	.28**	.07	-							
4. How long the mission has ended (Dummy)	.05	.03	.01	-						
5. Dispositional Resilience	.23**	.08	.06	.06	-					
6. Intrusion	.04	.07	.02	-.29**	-.39**	-				
7. Avoidance/Numbing	.03	.09	.35**	.04	-.32**	.64**	-			
8. Hyperarousal	.07	.02	.25**	.13**	-.25**	.59**	.27**	-		
9. Secondary Traumatic Stress	.22*	.09	.05	.05	-.19**	.21**	.15*	.12*	-	
10. Burn out	-.02	.06	.24**	-.20**	-.21**	.32**	.18**	.25**	.12*	-
11. Compassion Satisfaction	-.09	.04	.04	.17**	.26**	-.47**	-.45**	-.34**	.14	-.23**

Note. N = 399. Gender: 1 = male; 2 = female. Duration of operation <= 8 months: 1= From 3 to 5 months, 0= From 6 to 8 months. Duration of operation > = 9 months: 1= From 9 to 12 months, 0= after 12 months.
* p < .05; ** p < .01

CFA confirmatory of the model's variables

Confirmatory factor analysis was performed using robust maximum likelihood estimation to examine the structure of variables (Post Traumatic Stress Disorder, Dispositional Resilience, and Professional Quality of Life). Two different models were tested and compared. The first model included three factors considering all scales with a single factor structure. The results of the first model show a significant chi-square value ($\chi^2(348)=1288.31$, $p<.001$; CMIN/DF=3.70)

but the values of the other fit indices were: NNFI = .72; CFI = .75; RMSEA =.13 with C.I.= .087 - .091; SRMR = .07. Moreover, the AIC and BIC values were, 1334.216 and 1777.15 respectively.

The second CFA model included the same three factors but for Post-Traumatic Stress Disorder and Professional Quality of Life, a factorial structure of second order was used. The results of this model provided a better fit: $\chi^2(345) = 1102.36$ p< .001; CMIN/DF=3.20= .96; CFI = .97; RMSEA = .05 with C.I.= .055 - .068; SRMR = .05. Moreover, the AIC and BIC values were smaller, 324.184 and 481.665 respectively. This second model fitted the data significantly better than the first, not only for the values of fit indices but also for the chi-square difference test ($\Delta\chi^2(3) = 185.95$, p < .001).

Main effects and moderating effects

After controlling for gender, duration of operation and How long the mission has ended, we have conducted the regression for Post-Traumatic Stress Disorder (Intrusion, Avoidance/Numbing and Hyperarousal) and Dispositional Resilience in predicting Compassion Satisfaction, Secondary traumatic stress and Burnout (table 4).

Table 4. *Results of hierarchical regression analyses (standardized regression coefficients)* Post Traumatic Stress Disorder *and professional quality of life* (Compassion Satisfaction, Secondary traumatic stress, Burnout).

	Secondary traumatic stress	Burnout	Compassion Satisfaction
Step 1			
Gender (dummy)	.11*	.04	.10
Duration of operation<= 8 months (Dummy)	.02	.07	.03
Duration of operation > = 9 months (Dummy)	.08	.16**	.08
How long the mission has ended (Dummy)	.02	-.15**	.11*
Step2			
Dispositional Resilience	-.31**	-.35**	.38**
Avoidance/Numbing	.12*	.13*	-.26**
Hyperarousal	.11*	.16**	-.23**
Intrusion	.16**	.29**	-.35**
Step 3			
Dispositional Resilience X Avoidance/Numbing	-.01	.04	.11*
Dispositional Resilience X Hyperarousal	-.13**	-.12**	.19*
Dispositional Resilience X Intrusion	-.10	-.11*	.13*

Note. N = 399. Gender: 1 = male; 2 = female. Duration of operation<= 8 months: 1= From 3 to 5 months, 0= From 6 to 8 months. Duration of operation> = 9 months: 1= From 9 to 12 months, 0= after 12 months. How long mission has ended: 1= From 0 to 19 months; 0= From 19 to 36 months.
. * p < .05; ** p < .01

In step 2 (table 4) we can see support the hypothesis 1. Dispositional Resilience was negatively significant for Secondary Traumatic stress (H1a, β= -.31**, p<.001) and Burnout (H1b, β=-.35**, p<.001), while was significantly positive for Compassion Satisfaction (H1c, β= .38**, p<.001). Hence, when the individuals (the military in this case) implement positive behaviors towards the traumatic event immediately, the perceived stress from the other and the burnout decrease significantly, while the satisfaction of helping the neighbor increases.

Regarding the hypothesis 2 on the moderating effects in the relationship between Post Traumatic Stress Disorder of Dispositional Resilience on professional quality of life, the results showed significant interactions between Dispositional resilience and Hyperarousal, as well as between Dispositional resilience and Intrusion, to explain Secondary Traumatic Stress, Burnout and Compassion Satisfaction.

The results step 3 showed that the main effects were qualified by the presence of significant two-way interactions (Aiken & West, 1991), which accounted for a significant amount of additional variance in outcomes and yielded a significant regression weight.

Figure 2 shows that the relationship between Hyperarousal and Dispositional resilience on the Secondary Traumatic Stress: the interaction effect with Resilience buffering the negative impact of High Hyperarousal on Secondary Traumatic Stress. The effect of the constant feeling of danger of the military on the trauma perceived during the operations is attenuated by resilience when there is a low Hyperarousal.

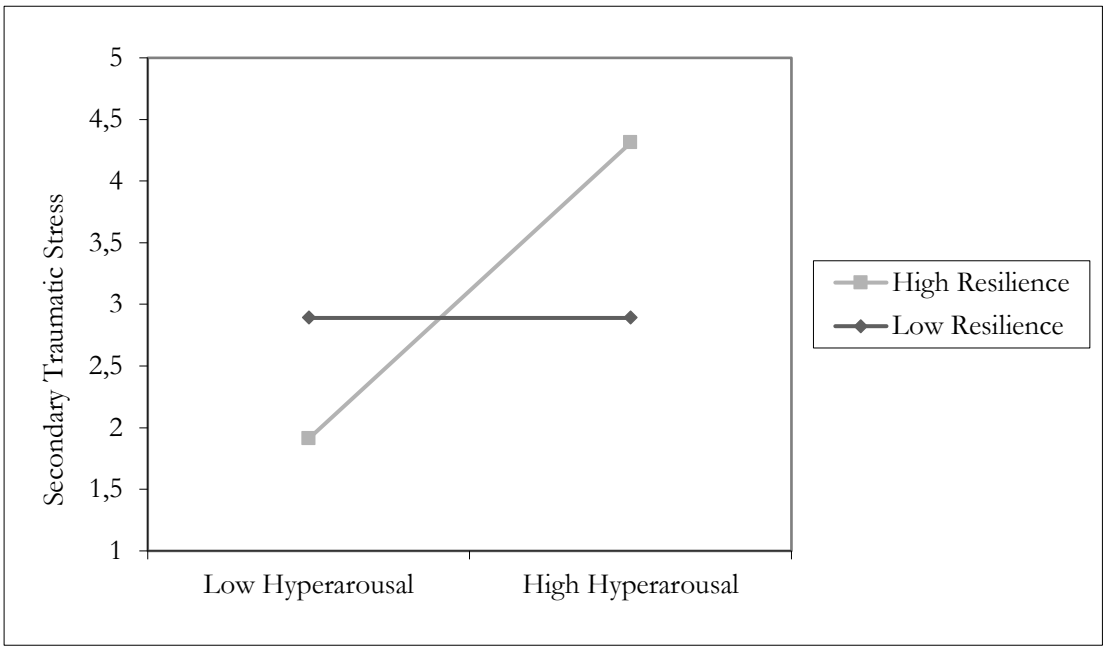

Figure 2. Interaction between Hyperarousal and Dispositional Resilience in predicting Secondary Traumatic stress

Figure 3 shows that the Dispositional Resilience moderates the negative impact of Hyperarousal on the Burnout. This means that military who have experienced low Hyperarousal during operations have developed mechanisms of defense, but the psychological solidity (Hardiness) is an important resource for stress resilience and can reduce the impact of this effect.

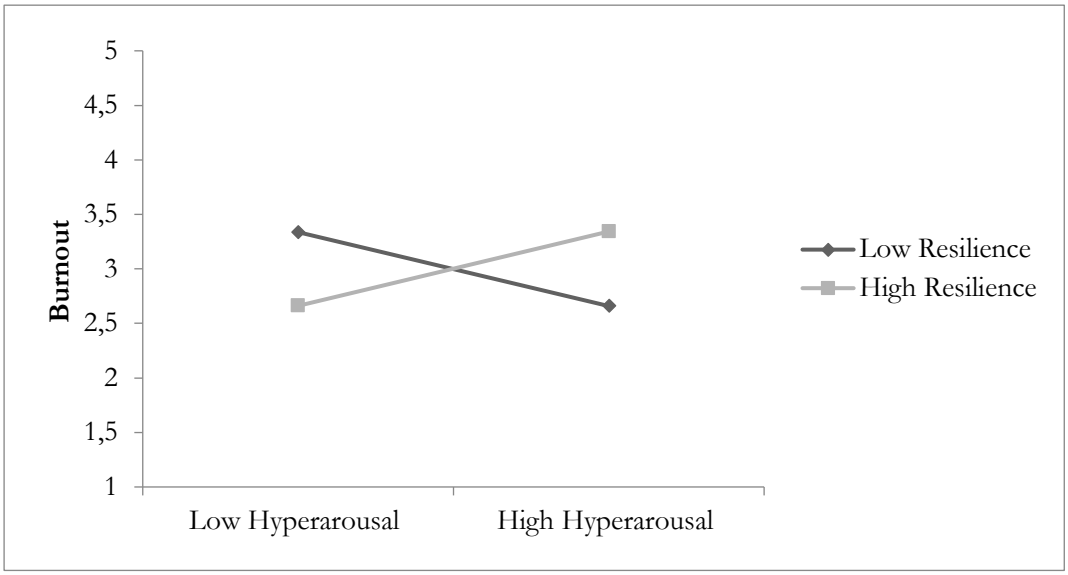

Figure 3. Interaction between Hyperarousal and Dispositional Resilience in predicting Burnout

Regarding the interaction between Intrusion and Dispositional Resilience: the interaction effect with Intrusion buffering the negative impact of lower Intrusion on Compassion Satisfaction. Positive behaviors can reduce the tendency to continually relive the traumatic event. This reduction can improve the satisfaction that the military derives from having brought help with his profession and his mission. (Figure 4)

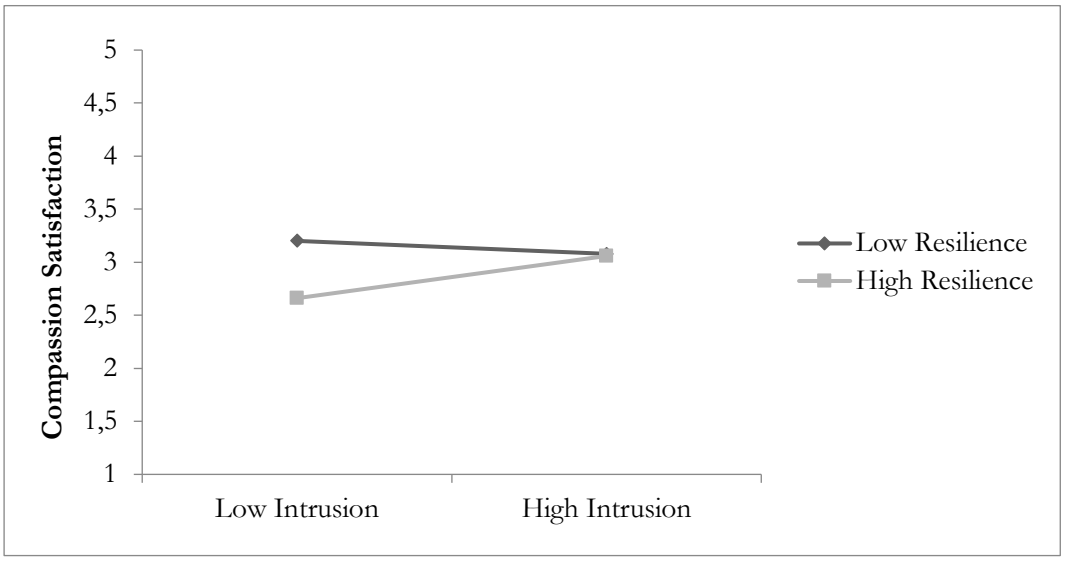

Figure 4. Interaction between Intrusion and Dispositional Resilience in predicting Compassion Satisfaction

4. Discussion

The aim of the study was to investigate the moderating effect of resilience in the impact that post-traumatic stress syndrome has on professional quality of life in the military returning from peacekeeping operation. Although each of us is exposed to the possibility of incurring traumatic events, there are professions more frequently exposed to stressful life-events and may therefore be at risk of developing trauma or stress-related health problems. Furthermore, in addition to the perception of risk for themselves, soldiers can deal with the suffering of other people thorough experiences of pain and death. For some, the distress that derives after exposure to traumatic events may evolve into disorders like depression or post-traumatic stress disorder (PTSD) peacekeeping operation.

Not all people exposed to a traumatic situation then show psychopathological symptoms. Several theories have been processed to account for the development of trauma-related psychopathology. Adler and colleagues (2005) found that the length of deployment was positively related to higher levels of stress and depression. Further, compassion fatigue has been directly and positively related to job stress (Kenny & Hull, 2008), and burnout has been related to past trauma (Whealin et al., 2007). Schok et al. (2010) in a study of 1,561 veterans, found that resilience associated with the cognitive processing of war experiences was associated with more personal growth following military deployment. Furthermore, in another study by Pietrzak et al. (2010), it was found that there are protective factors such as resilience, social support, and the military unit's post-deployment support, served as psychosocial buffers for PTSS and depressive symptoms. Although cognitively it is possible to explain the onset of PTSD when this process is characterized by alternating stages of denial and avoidance versus intrusions of trauma-related images, it does not sufficiently explain the effects of social support and the environmental influences on post-traumatic morbidity, nor does it provide insight into individual differences in resilience or vulnerability to stress-related disorders (Bartone, 2006; Brewin & Holmes, 2003; Kleber et al., 1992).

According to Bartone (2006), although many people suffer physical and mental health decrements following exposure to stress, others show considerable resilience, remaining healthy despite high stress levels.

Research has shown that emotional response and perceived threat are important predictors of PTSD (Ozer et al., 2003). However, study on how the presence of resilient qualities (compared to the absence of risk factors) helps overcome difficulties in adult populations has not received enough attention in research (Bonanno, 2004).

Although resilience is a personal characteristic capable of orienting the person's behaviour and promoting mechanisms of resistance to stress, few studies have been carried out on the military who have studied its impact. For example, Vogt and Tanner (2007) evaluated post-war risk factors of posttraumatic stress syndrome (PTSS) and resilience among 308 veterans and Adler et al. (2005) found that the length of the mission was positively related to higher levels of stress and depression.

The results that emerged in our study reveal that the moderating effect of resilience is evident in all the effects of Davidson trauma scale on the professional quality of life. About secondary traumatic stress, resilience can mitigate, in the presence of low hyperarousal, the effects of the trauma resulting from peacekeeping operation. About the burn out, however, resilience can help the military to develop adequate defense mechanisms, significantly reducing their impact. Finally, the results show that compassion satisfaction can be influenced by intrusion mechanisms, but resilience is able to buffer its effects.

There are no prior studies of resilience and professional quality of life among military, however, the results of the present study are consistent with research on other groups of the military who have experienced trauma. Hooper et al. (2010) studied components of professional quality of life among emergency nurses compared to nurses in other highly stressful inpatient units. The results of this study showed that lower compassion-related scores corresponded to higher levels of burnout. Furthermore, the work of Hoge et al. (2004), who compared those deployed to Iraq and those deployed to Afghanistan. The results showed that the deployed group reported lower resilience scores strongly support the need for resilience training for military healthcare providers, particularly as a means of addressing personnel retention.

The limits of our study that we intend to tackle in a subsequent research step, concern that we have not yet addressed at this stage if there are multi-group differences compared to the different countries where the peacekeeping mission was carried out. We aim to tackle it by increasing and balancing the sample.

The results from our study may suggest developing future strategies for PTSD may lie in the field of prevention and in investigating successful coping mechanisms among resilient servicemen (Zimmermann et al., 2014).

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