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Liens entre les cinq grands facteurs de personnalité et le SSPT chez des policiers Français

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Abstract

Introduction: Post-traumatic stress disorder (PTSD) is rare among police officers, but the symptoms of PTSD are not. Personality traits can be a contributing factor of stress disorders. Based on the Big Five personality traits, three personality profiles can be identified: Resilient, Overcontrolled, and Undercontrolled. Resilient people are characterized by high emotional stability (low Neuroticism), high social skills and self-confidence. Overcontrollers have higher scores on Neuroticism and they tend to internalize their negative emotions. Undercontrollers are characterized by low Conscientiousness (impulsivity), a tendency toward social withdrawal and low self-esteem.

Objective: The aim of this study was to examine the role of personality traits and profiles in the emergence of PTSD symptoms among French police officers.

Method: Participants were French national police officers (*N*=100, M = 32.9 years, SD = 9.8, 19-57) who completed the Posttraumatic Stress Disorder Checklist Scale (PCLS) and the Big Five Inventory (BFI).

Results: Results revealed the three expected personality profiles: Resilients (*n*=31), Overcontrollers (*n*=43) and Undercontrollers (*n*=19). The Resilients presented with the fewest PTSD symptoms and the Undercontrollers with the most (particularly Reexperiencing). The latter also scored the highest on Neuroticism and the lowest on Extraversion and Agreeableness. Police officers with an Undercontrolled profile were also the oldest or those who had served the longest in the police force. Neuroticism and length of service were the two predictors of PTSD symptoms for Reexperiencing and Avoidance.

Conclusion: This study demonstrates the contribution of each personality trait and length of service to PTSD symptoms in French police officers.

Keywords: Posttraumatic stress symptoms; Big Five personality factors; Personality profile; Work-related stress; Police personnel.

Résumé

Introduction : Le trouble de stress post-traumatique (TSPT) est rare parmi les policiers, mais les symptômes ne le sont pas. Les traits de personnalité peuvent être un facteur médiateur des troubles liés au stress. Ils permettent habituellement d'identifier trois profils de personnalité : les « résilients » caractérisés par une forte stabilité émotionnelle, des compétences sociales et une confiance en soi élevées ; les « sur-contrôlés » qui ont des scores élevés de Névrosisme et une tendance à internaliser leurs émotions négatives et des « sous-contrôlés » avec un faible Caractère consciencieux (impulsivité), une tendance à l'isolement social et une faible estime de soi.

Objectif : L'objectif de cette étude était d'examiner le rôle de la personnalité dans l'apparition de symptômes du TSPT chez les policiers français.

Méthode : Les participants étaient des policiers français (*N*=100, M = 32,9 ans, ET = 9,8, 19-57) qui ont complété l'échelle de l'état de stress post-traumatique (PCLS) et l'inventaire des cinq grands facteurs de personnalité (BFI).

Résultats : Les résultats ont retrouvé les trois profils de personnalité attendus : « résilients » (n=31), « sur-contrôlés » (n=43) et « sous-contrôlés » (n=19). Les premiers présentaient le moins de symptômes de TSPT et les derniers le plus (en particulier la répétition ou intrusion). Ils avaient également les scores les plus élevés de Névrosisme et les plus bas d'Extraversion et d'Agréabilité. Ces policiers étaient aussi les plus âgés ou ceux qui avaient servi le plus longtemps dans la police. Le Névrosisme et la durée du service étaient les deux facteurs prédictifs des symptômes de TSPT pour la répétition et l'évitement.

Conclusion : Cette étude met en évidence la contribution de chaque trait de personnalité et durée de service pour les symptômes de TSPT chez les policiers français.

Mots-clés: Symptômes de stress post-traumatique ; Cinq grands facteurs de personnalité ; Profil de personnalité ; Stress lié au travail ; Police.

Relationship between the Big Five personality traits and PTSD among French police officers

1. Introduction

Several studies have shown that police work is particularly stressful (e.g. Aytac, 2015; Lau, Hem, Berg, Ekeberg, & Torgersen, 2006). Stress is related both to critical events, which are rare, and to everyday working conditions and the way that police officers cope with the pressures they face. Exposure to critical events (sexual trauma and combat trauma) is more predictive of posttraumatic stress disorder (PTSD) than other trauma types (Habersaat, Geiger, Abdellaoui, & Wolf, 2015; Jakob, Lamp, Rauch, Smith, & Buchholz, 2017). About 4.5% to 9% of police officers may suffer from full PTSD (Berger et al., 2012; Maia et al., 2007), but nearly 15-16% suffer from partial PTSD (Maia et al., 2007; Marmar et al., 2006). Work stressors and managing the job can cause other mood disorders in police officers, such as burnout (Kula, 2017; Lau et al., 2006), which are also underpinned by individual vulnerability factors (El Hage, Powell, & Surguladze, 2009). Understanding the protective factors against developing PTSD symptoms or other stress-related disorders is a major public health priority, and yet there have been few studies on protective or aggravating factors (Ellrich & Baier, 2015).

The Big Five personality model (Five-Factor Model or FFM) is the most consensual approach to personality assessment. It proposes five main dimensions of personality, broadly defined as Extraversion *vs.* Introversion, Agreeableness *vs.* Antagonism, Conscientiousness or Control *vs.* Impulsivity, Neuroticism *vs.* Emotional Stability, and Openness to New Experience/Intellect *vs.* Closed-mindedness (John, Naumann, & Soto, 2008; John & Srivastava, 1999). Extraverted people are outgoing, sociable with positive emotionality, talkative, energetic, assertive, and excitement seeking. Agreeable individuals promote

prosocial and communal orientation toward others, they are cooperative, friendly, considerate or empathic, generous, trustful, and kind. Conscientious individuals facilitate goal-directed and planned behavior, they are work-oriented, responsible, attentive, careful, dependable, persistent, orderly, and impulse controlled. Neuroticism is associated with anxiety and instability. Neurotic individuals are moody, angry, easily frustrated, lacking in confidence, insecure in relationships, and sometimes anti-social. Individuals high in Openness are imaginative, curious, creative, complex and subtle, with artistic values, unusual ideas, and varied experiences. They are also quick to learn, clever, insightful, and independent-minded (Caspi, Roberts, & Shiner, 2005; John et al., 2008).

To understand and prevent mood disorders among police officers, it is important to gain a deeper insight into personality traits that may be linked to PTSD symptoms. Police officers probably share common personality traits (Lau et al., 2006; Lorr & Strack, 1994), although some authors doubt the idea of a single profile (Wagner, 2005). The personality profile of police officers is likely to be characterized by low scores on Neuroticism (i.e., emotionally secure), high scores on Extraversion (i.e., more assertive and self-confident), high scores on Conscientiousness (i.e., with a strong pattern of self-discipline or sense of control), and high scores on Agreeableness (i.e., friendly, sociable and gregarious) (e.g. Lau et al., 2006; Lorr & Strack, 1994; Wearing & Hart, 1996). This suggests the existence of a "Rescue Personality" of police officers and firefighters (Mitchell & Bray, 1990). Similar results have been found with other personality assessment tools (e.g. Eysenck: highly extraverted, venturesome and impulsive, but conforming, Gudjonsson & Adlam, 1983).

Obviously, personality factors could represent a mediating factor between environmental stressors and mental health. For instance, several studies highlighted the role of Neuroticism (low Emotional stability) in perceived stress levels and stress reactivity (e.g. Garbarino, Chiorri, & Magnavita, 2014; Heinrichs et al., 2005; Jakšić, Brajković, Ivezić,

Topić, & Jakovljević, 2012; Vollrath, 2001; Yuan et al., 2011). Neuroticism fosters the subjective experience of negative emotions of events. By contrast, Extraversion and Agreeableness are both related to more positive feelings, and better adaptation to stressful work (e.g. Garbarino et al., 2014; Jakšić et al., 2012; Skomorovsky, 2013).

Three personality profiles were described by Block (1971) using the Q-Sort Method for personality assessment: Resilients, Overcontrollers, and Undercontrollers. These profiles were consistent and stable over time. Various subsequent studies on children or adults found similar results. Subsequently, they were also found using the Big Five personality traits (e.g. Asendorpf, Borkenau, Ostendorf, & Van Aken, 2001; Asendorpf & van Aken, 1999; Boehm, Asendorpf, & Avia, 2002; Robins, John, Caspi, Moffitt, & Stouthamer-Loeber, 1996). Across studies, Resilients obtain the most favorable descriptions on all five scales (high emotional stability and high scores in the other four personality traits). They demonstrate high social skills and self-confidence. They do not have mental disorders, and they succeed academically and socially. Overcontrollers score higher on Neuroticism than Resilients, associated with high Agreeableness and low Extraversion. They share some of the features of Resilients, but tend to internalize their problems and negative emotions. Undercontrollers are characterized by low Conscientiousness (impulsivity) and low Agreeableness, with a tendency toward social withdrawal and low self-esteem. They tend to fail academically and socially and have more emotional and behavioral problems.

Personality traits can thus constitute protective factors against stress and mood disorders, or, on the contrary, they can increase susceptibility to psychic morbidity and anxiety disorders. The aim of this study was to examine the role of personality traits and profiles in the emergence of PTSD symptoms among police officers. We expected to observe that police officers with Resilient characteristics would show the fewest PTSD symptoms and those with features of Undercontrollers would show the most.

2. Material and methods

2.1 Participants and procedure

Participants were recruited in a French national police training center. All the police officers who were contacted agreed to participate in the study. After they had been informed of the aims of the study, they gave their informed consent, and completed the paper self-report questionnaire anonymously. Clear and precise instructions were given, and the importance of giving honest answers was stressed. No incentive was provided. This study complies with the Code of Ethics of the World Medical Association (Declaration of Helsinki).

Our sample comprised 100 French national police officers (M = 32.9 years, SD = 9.8, 19-57), including 28 women (27.7%); 58 (58%) were patrolmen (*gardiens de la paix*) or judicial police officers (*officiers de police judiciaire*), 41 (41%) were auxiliary police officers, and 1 (1%) was a forensic technician (*technicien de la police scientifique*). Participants were selected consecutively for inclusion in our sample, in close contact with the police districts in the 'Centre-Val de Loire' Region (France). Average length of service in the police force was 10.9 years (SD = 9.9, 0-34), 12.2 years (SD = 9.2, 0-34) for men and 7.7 years (SD = 9.3, 0-30) for women. The median was respectively 10.0, 12.0, and 2.5 years. Eight participants were excluded due to incomplete questionnaires.

2.2 Instruments

PCLS. The Posttraumatic Stress Disorder Checklist Scale (Ventureyra, Yao, Cottraux, Note, & De Mey-Guillard, 2002; Weathers, Litz, Herman, Huska, & Keane, 1993) is a brief and practical self-report assessment of the severity of PTSD-related symptoms of intrusion/reexperiencing, avoidance/numbing, and hyperarousal (DSM-IV symptom criteria) in the past month. The 17 items are rated on a 5-point scale (from 1 - not at all - to 5 -

extremely); total score is the sum of all 17 items. Participants report the level of distress experienced for each item. The total score can be divided into 3 sub-scores: reexperiencing (items 1–5), avoidance (items 6–12), and hyperarousal (items 13–17). Scores range from 17 to 85, with higher scores indicating greater severity of PTSD symptoms. A cutoff score of 44 has demonstrated high diagnostic accuracy for PTSD (.97), with good specificity (.87) and sensitivity (.94) (Ventureyra et al., 2002).

BFI. The Big Five Inventory (John, Donahue, & Kentle, 1991; Plaisant, Srivastava, Mendelsohn, Debray, & John, 2005) is a self-administered questionnaire containing 45 items for five dimensions: Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to experience. Participants answer on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The BFI has good psychometric properties.

2.3 Data analysis

Internal consistency of the dimensions of the Big Five Inventory, as assessed by Cronbach's alpha coefficient, was > .70. We conducted a k-means cluster analysis, which allocates each case to the cluster with the nearest center point. To compare clusters (personality prototypes), we used analysis of variance (ANOVA), with post hoc comparisons (Bonferroni test) to assess the differences between groups (group interactions). Next, we calculated Bravais Pearson's correlations to evaluate the relationship between PTSD symptoms and personality traits. Next, we conducted a multiple regression analysis to determine the relative weights of length of service and Big Five personality traits on the PTSD symptoms. Finally, Structural Equation Modeling (SEM) was performed using the maximum likelihood estimation. In this study, selected values were greater than 0.90 for the comparative fit index (CFI) and the Normed Fit Index (NFI), less than 0.08 for the root mean-square error of approximation (RMSEA), and less than 3 for the $\chi 2/df$ (Arbuckle & Wothke,

2003; Byrne, 2010; Hu & Bentler, 1999). An alpha level of less than 5% was considered statistically significant. Statistical analyses were performed with Statistica® and AMOS®.

3. Results

Descriptive statistics of PTSD symptoms and the BFI scores are provided in Table 1, including Cronbach's alpha coefficient. Based on the cut-off score of 44 on the PCLS, 3 police officers (3.2%) had a very probable diagnosis of PTSD. Based on the broader cut-off score of 34 on the PCLS, 12 police officers (12.9%) were affected by partial PTSD. Using a diagnostic approach based on DSM-IV criteria, with at least 1 item reported for Reexperiencing (with a score ≥3), associated with three or more items for Avoidance, and at least 2 items for Hyperarousal, 4 police officers (4.3%) met the criteria for PTSD diagnosis. These 4 police officers were male (M = 37.5 years, SD = 8.5, 27-47), had been working for a long time in the police (M = 15.8 years, SD = 8.2, 8-27), and had high PTSD total severity scores (M = 45.5, SD = 6.3, 39-54) (with high sub-scores for Reexperiencing (M = 14.0, SD = 3.9, 10-19), Avoidance (M = 16.2, SD = 1.3, 15-18), and Hyperarousal (M = 15.2, SD = 5.3, 11-23)).

Please Insert Table 1 here

Next, we conducted a k-means cluster analysis, which divided the police officers into three clusters according to personality prototypes (Asendorpf et al., 2001; Block, 1971). BFI scores yielded the three expected personality types: Resilients, Overcontrollers and Undercontrollers (Figure 1). The Resilients had the most positive personality traits, with high scores on Extraversion, Agreeableness, Conscientiousness, and Openness, and low scores on Neuroticism (high emotional stability). The Overcontrollers had a similar but less positive

profile, while the Undercontrollers had high scores on Neuroticism and low scores on Conscientiousness (impulsivity). The Resilients group (n = 31) comprised 58.1% men, young adults (M = 27.5 years, SD = 7.9, 20-57), with the shortest length of service in the police (M = 5.2, SD = 6.5 years, 2-30). The Overcontrollers group (n = 43) was composed predominantly of men (81.4%), young adults (M = 33.0 years, SD = 9.6, 19-52), with longer service (M = 10.9 years, SD = 9.0, 0-31). The Undercontrollers group (n = 19) was composed of 73.7% men, who were older (M = 38.3 years, SD = 8.9, 20-51) and had spent the longest time in the police (M = 16.9 years, SD = 8.6, 1-32).

Please Insert Figure 1 and Table 2 here

Between these three groups, differences in the BFI scores were significant for all traits (Table 2). Post hoc comparisons (Bonferroni test) were performed to assess the differences between groups (group interactions). Next, we compared PTSD symptoms according to personality profile (Figure 2). These symptoms were greater in the Undercontrollers than in the Resilients and Overcontrollers. All differences between groups are shown in Table 3, including *Post hoc* comparisons (Bonferroni test).

Please Insert Figure 2 and Table 3 here

Undercontrollers had higher scores on Neuroticism, and lower scores on Conscientiousness and Agreeableness than Resilients and Overcontrollers. They also had more symptoms of PTSD (Reexperiencing, Avoidance, and Hyperarousal) than the other personality profiles. They were the oldest police officers, or those who had worked the longest in the police. The correlation between age and length of service was high (.97, p <.001). Therefore, we looked for links between PTSD symptoms (related to reexperiencing,

avoidance, or hyperarousal), length of service, and personality traits. Table 4 shows correlations between PTSD symptoms and length of service (respectively .55, .41 and .26, $p <$ .001).

Please Insert Table 4 here

Next, we carried out a step-by-step multiple regression analysis to determine the relative weights of length of service, Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness on the PTSD symptoms, starting with Reexperiencing. They explained 42% of the variance ($p < .001$), with length of service, which made up the first step, contributing 31% ($p < .001$), followed by Neuroticism bringing about 11% of additional variance ($p < .001$). We carried out the same procedure for Avoidance. The same independent variables explained 28% of the variance ($p < .001$), with Neuroticism accounting for 21% ($p < .001$) and length of service 7% ($p < .01$). Finally, we carried out the same procedure for Hyperarousal. Only Neuroticism explained more than 18% of the variance ($p < .001$). When we removed Neuroticism from the equation, Agreeableness emerged in part as a predictor for PTSD symptoms: for Reexperiencing, only length of service explained 30% of variance ($p < .001$); for Avoidance, Agreeableness brought 4% additional variance ($p < .05$) to the 17% explained by length of service ($p < .005$), and it was the only predictor for Hyperarousal, but explaining only 8% of the variance ($p < .005$).

We summarized these relations using a structural equation model (SEM). SEM provides a parsimonious and logical explanation of observed relationships for the measured variables. Relationships are shown in Figure 3.

Please Insert Figure 3 here

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4. Discussion

The aim of our study was to identify which personality traits, and particularly which personality profile, were most likely to be associated with PTSD or PTSD symptoms. The results confirmed the three expected personality profiles: Resilients, Overcontrollers, and Undercontrollers. The Resilient group comprised 31 police officers, the Overcontrollers group 43, and the Undercontrollers group 19. The Resilients had the fewest PTSD symptoms and the Undercontrollers the most (particularly for Reexperiencing). Specifically, the Undercontrollers had the highest Neuroticism scores and the lowest Extraversion and Agreeableness scores (i.e. the most vulnerable personality profile). They were also the oldest or those who had served longest in the police. Correlational analysis showed that both length of service and personality traits were associated with PTSD symptoms. Neuroticism and length of service were the two predictors of Reexperiencing and Avoidance. While Agreeableness and Extraversion had negative correlations with PTSD symptoms (i.e., both, but particularly Agreeableness, are protective traits or associated with an absence of disorders), they were no longer significant when the police officers had high scores on Neuroticism.

Our results for personality profiles are in line with those in the literature. Resilients are more resistant to job stressors and do the best job (Garbarino et al., 2014; Jakšić et al., 2012; Lau et al., 2006). Personality traits can moderate perceived stress levels. The proportion of police officers in our sample with full PTSD was relatively low compared to the findings of other authors (Maia et al., 2007; Marmar et al., 2006), but participants were not part of an elite unit and they had not experienced a traumatic event such as 9/11 in New York. In France, in general, little consideration is given to the traumatic events that occur during police

work. Officers rarely benefit from debriefing with structured psychological support. On the whole, they do not talk about any distress they may have suffered, and their supervisors also tend to ignore it. Older police officers in the lowest ranks are often those with the lowest education level and the least training. Consequently, if these police officers remain isolated, they are more at risk of developing psychic morbidity. With increasing length of service, police officers accumulate experiences of violent situations or the distress of others. They are more vulnerable to the negative effects of acute or chronic stress. Stress can be caused both by critical events and by daily stressors. Older police officers report more job pressure and fewer work injuries (Berg, Hem, Lau, Håseth, & Ekeberg, 2005). The protective role of personality traits changes over time. Personality traits tend to change in a stressful environment and to be more associated with anxiety and psychological distress. This may call into question the idea that young police officers are inevitably more prone to post-trauma reactions (Hodgins, Creamer, & Bell, 2001). It also suggests that police officers should be selected on personality criteria in order to ensure their capacity to adapt to their work and to cope with the stress that it involves.

The main limitations of this study are the size of the sample, the fact that participants were still in training, and the use of self-administered questionnaires. The results should be interpreted with caution, even though the participants were from a regional training center for all categories of police officers.

This study highlights the role of personality and length of service in coping with stress and in the occurrence of PTSD symptoms in French police officers, and particularly the role of neuroticism (low emotional stability). It suggests the relevance of screening young recruits, giving precedence to those presenting with personality traits that could have a protective role (high Extraversion, high Agreeableness, high Conscientiousness or low impulsivity). It is important to recognize the stress experienced by police officers in their work and to develop

strategies to help them cope with it throughout their career (Pole, Kulkarni, Bernstein, & Kaufmann, 2006), such as developing social relationships and promoting peer support during and after stressful situations (Bowling, Eschleman, & Wang, 2010). More specific support should also be given to police officers who show the characteristics of Undercontrollers because of their greater risk of developing PTSD symptoms. In sum, this research work should be replicated with a larger sample in order to gain a clearer view of the issue and perhaps to adapt actions to promote resilient functioning in a population that is often subject to post-traumatic stress.

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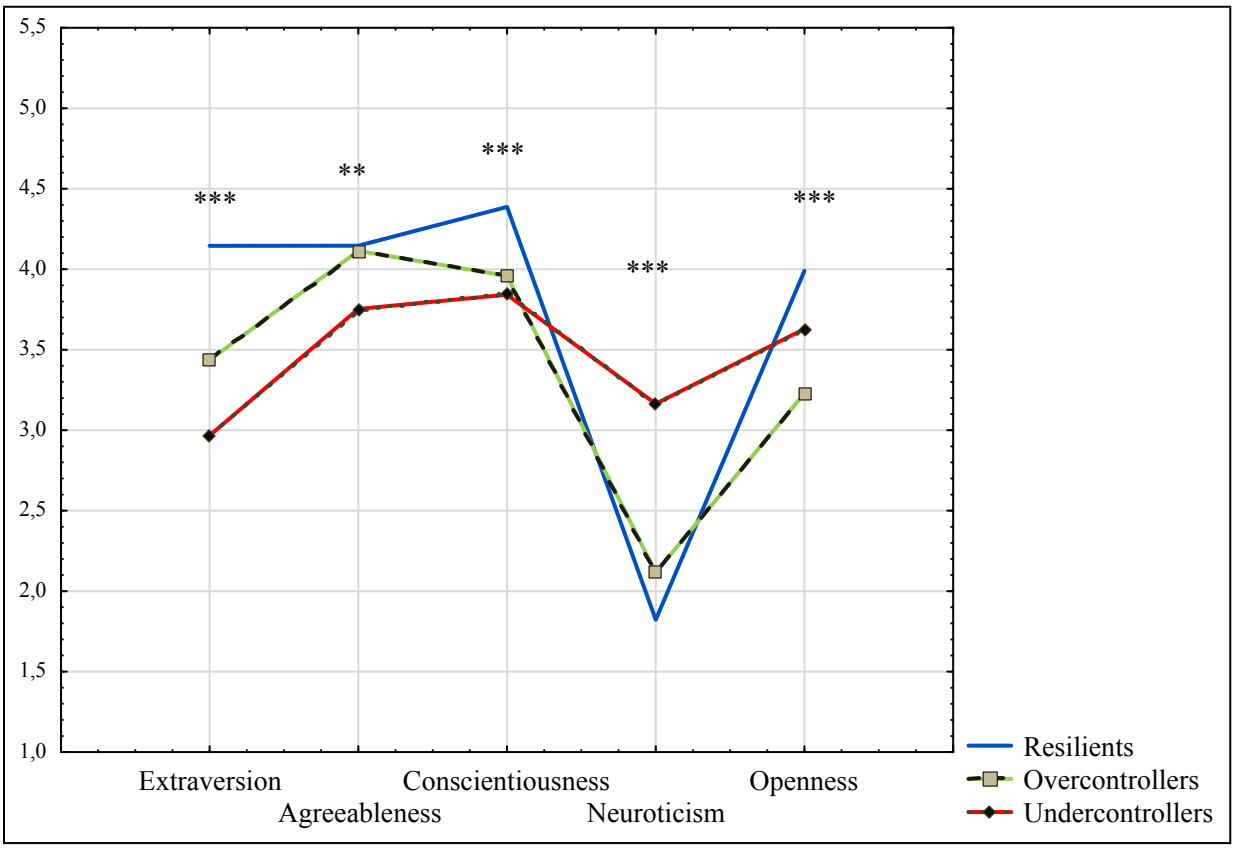
Figure 1. Resilient, overcontrolled and undercontrolled personality profiles.



*: p <.05; **: p <.01 and ***: p <.001

Figure 2. PTSD symptoms (means and standard deviations) according to personality profiles (Resilient, overcontrolled and undercontrolled).

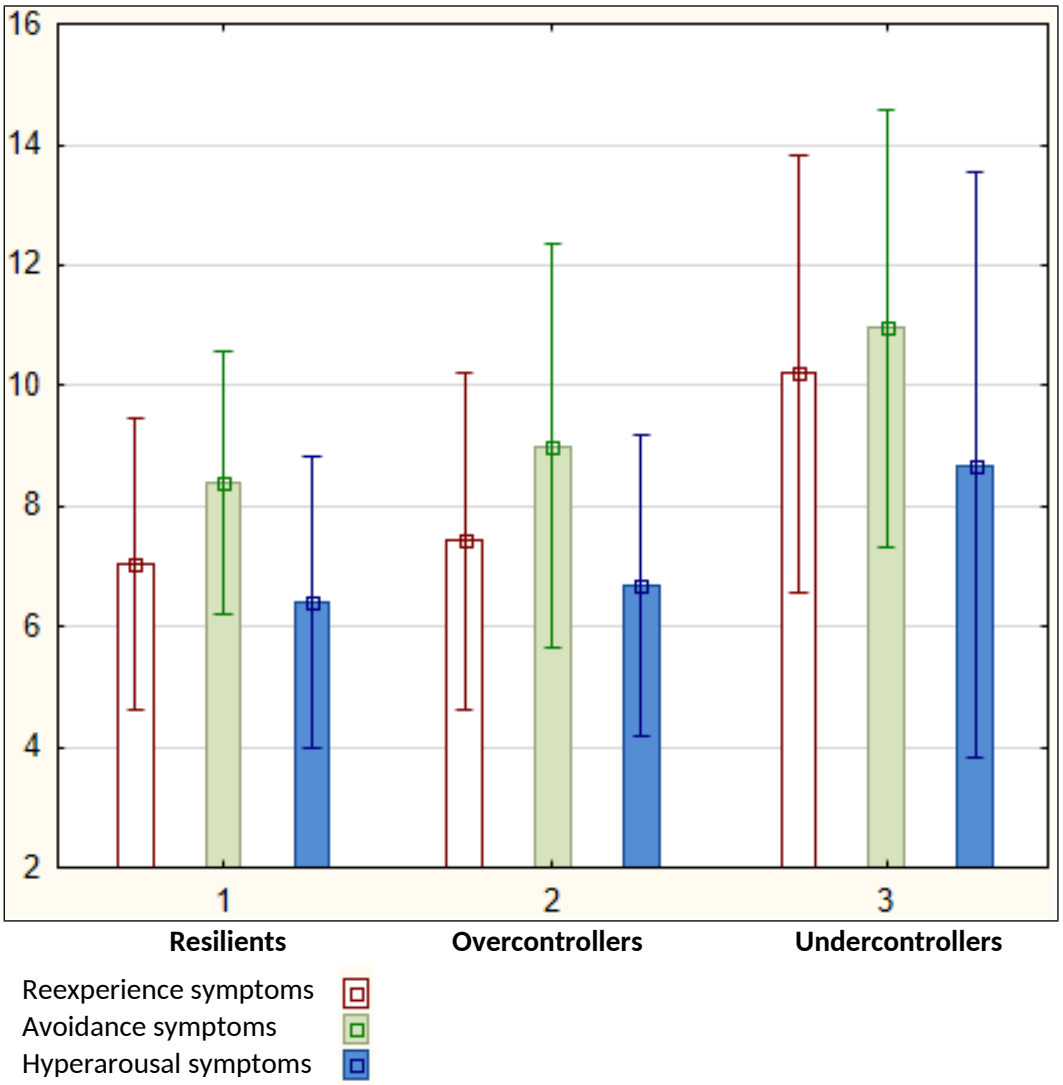
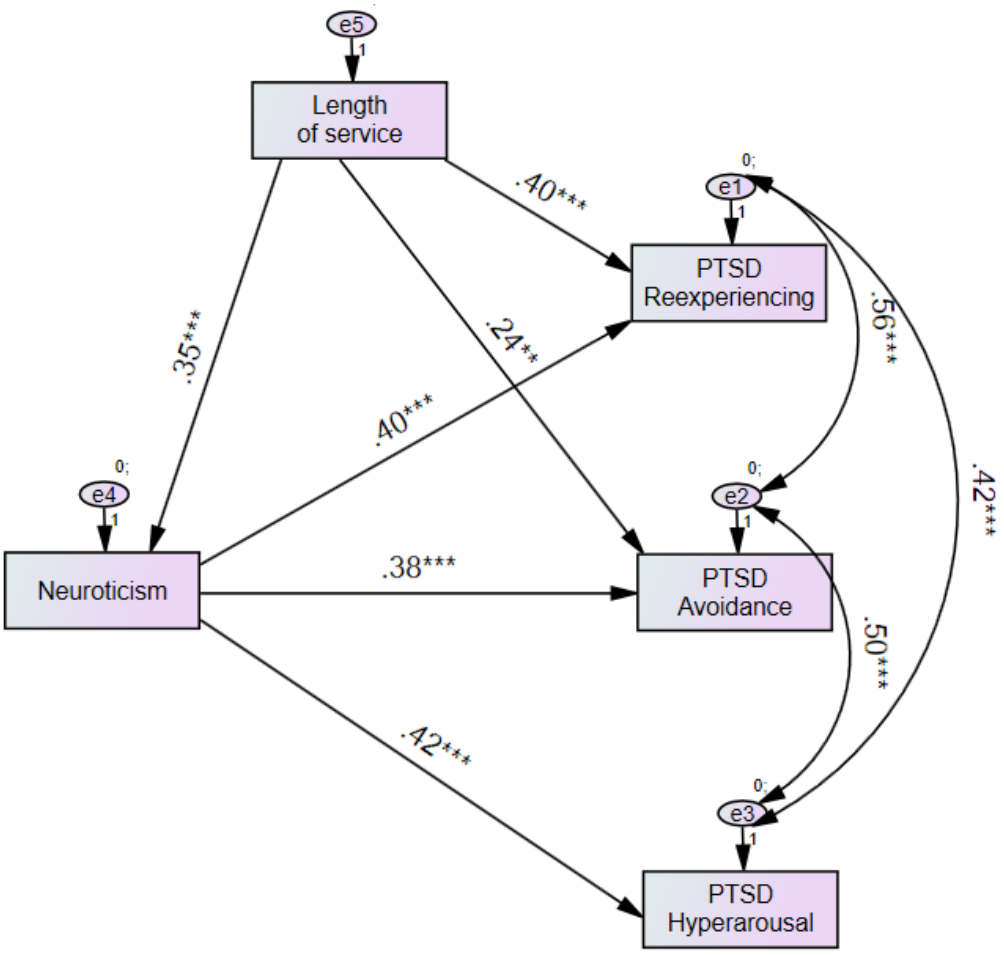


Figure 3. Impact of personality traits and length of service on PTSD symptoms.



*: p <.05; **: p <.01; ***: p <.001

$\chi 2$=1.60, df = 1
$\chi 2$/df =.87
p < .21
CFI = 99.6
NFI = 99.1
RMSEA = .077

Table 1. Descriptive statistics of PTSD symptoms and personality traits.

	Mean [CI 95%]	Median	Minimum	Maximum	Q1	Q3	*SD*	*Cronbach's coefficient*
PCLS								
Reexperiencing score	7.9 [7.2-8.5]	7	5	19	5	10	3.1	.76
Avoidance score	9.2 [8.5-9.8]	8	7	24	7	10	3.2	.69
Hyperarousal score	7.0 [6.4-7.7]	5	5	23	5	8	3.2	.85
Total score	24.1 [22.4-25.7]	21	17	54	18	27	8.1	.88
BFI								
Extraversion	3.6 [3.4-3.7]	3.6	1.9	4.9	3.1	4.0	.7	.84
Agreeableness	4.0 [4.0-4.1]	4.1	2.9	5.0	3.8	4.3	.4	.75
Conscientiousness	4.1 [4.0-4.2]	4.1	2.4	5.0	3.8	4.3	.5	.80
Neuroticism	2.2 [2.1-2.4]	2.1	1.1	4.4	1.7	2.6	.7	.83
Openness	3.6 [3.4-3.7]	3.5	2.2	4.8	3.2	4.0	.5	.80

BFI: Big Five Inventory; PCLS: Posttraumatic Stress Disorder Checklist Scale; CI: Confidence interval; Q1: 1st Quartile; Q3: 3rd Quartile

Table 2. Resilient, overcontrolled and undercontrolled personality profiles (means, standard deviations and inter-group comparisons)

	Resilients (Cl.1)	Overcontrollers (Cl. 2)	Undercontrollers (Cl. 3)	F	*p*	Bonferroni post-hoc test
Extraversion	4.14 (.44)	3.28 (.51)	3.47 (.76)		***	Cl. 3 > Cl. 1 ** Cl. 3 > Cl. 2 (ns) Cl. 2 > Cl. 1 ***
Agreeableness	4.20 (.40)	4.08 (.33)	3.41 (.29)	6.53	**	Cl. 3 > Cl. 1 *** Cl. 3 > Cl. 2 *** Cl. 2 > Cl. 1 (ns)
Conscientiousness	4.43 (.31)	3.93 (.43)	3.77 (.60)		***	Cl. 3 > Cl. 1 *** Cl. 3 > Cl. 2 (ns) Cl. 2 > Cl. 1 ***
Neuroticism	1.71 (.43)	2.31 (.42)	3.45 (.61)		***	Cl. 3 > Cl. 1 *** Cl. 3 > Cl. 2 *** Cl. 2 > Cl. 1 ***
Openness	3.80 (.52)	3.33 (.42)	3.88 (.67)		***	Cl. 3 > Cl. 1 (ns) Cl. 3 > Cl. 2 ** Cl. 2 > Cl. 1 ***

*: $p < .05$; **: $p < .01$ and ***: $p < .001$

Table 3. PTSD symptom clusters (means, standard deviations and inter-group comparisons) in the three personality prototypes

	Resilients (Cl.1)	Overcontrollers (Cl. 2)	Undercontrollers (Cl. 3)	F	*p*	Bonferroni post-hoc test
Reexperiencing	7.03 (2.42)	7.41 (2.79)	10.21 (3.63)		***	Cl. 3 > Cl. 1 *** Cl. 3 > Cl. 2 ** Cl. 2 > Cl. 1 (ns)
Avoidance	8.39 (2.17)	9.00 (3.39)	10.95 (3.64)	4.26	*	Cl. 3 > Cl. 1 * Cl. 3 > Cl. 2 (ns) Cl. 2 > Cl. 1 (ns)
Hyperarousal	6.42 (2.42)	6.70 (2.49)	8.68 (4.84)	3.58	*	Cl. 3 > Cl. 1 * Cl. 3 > Cl. 2 (ns) Cl. 2 > Cl. 1 (ns)

*: $p < .05$; **: $p < .01$ and ***: $p < .001$

Table 4. Correlations between Big Five personality traits and PTSD symptoms.

	BFI personality traits					**PTSD clusters**		
	E	A	C	N	O	Reexperience	Avoidance	Hyperarousal
Length of service	-.36***	-.26*	-.22*	.34***	-.03	.55***	.41***	.26*
Extraversion	1	.11	.26*	-.31**	.15	-.20	-.27**	-.20
Agreeableness		1	.30**	-.36***	-.05	-.22*	-.31**	-.29**
Conscientiousness			1	-.34***	.34**	-.08	-.15	-.19
Neuroticism				1	-.02	.50***	.46***	.43***
Openness					1	.13	.09	.07
Reexperience						1	.70***	***
Avoidance							1	.61***
Hyperarousal								1

*E: Extraversion; A: Agreeableness; C: Conscientiousness; N: Neuroticism; O: Openness; *: p <.05; **: p <.01; ***: p <.001*