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Associations Between Personality and Distress Tolerance Among Trauma-Exposed Young Adults

Nadia Chowdhury, B.A.^a, Salpi Kevorkian, B.A.^b, Sage E. Hawn, M.S.^c, Ananda B. Amstadter, Ph.D.^{a,c}, Danielle Dick, Ph.D.^{c,d}, Kenneth S. Kendler, M.D.^a, and Erin C. Berenz, Ph.D.^{b,a}

^aDepartment of Psychiatry, Virginia Commonwealth University, VA, USA

^bDepartment of Pediatrics, University of Virginia, Charlottesville, VA, USA

^cDepartment of Psychology, Virginia Commonwealth University, Richmond, VA, USA

^dDepartment of African American Studies, Virginia Commonwealth University, Richmond, VA, USA

Abstract

Low distress tolerance (DT) is related to negative mental health outcomes, particularly among trauma-exposed populations, who are at greater risk for mental health problems. However, little is known about potential etiological factors underlying the development of perceived (i.e., self-report) or behaviorally assessed DT. The present study examined associations between Big Five personality factors (i.e., openness, conscientiousness, extraversion, agreeableness, & neuroticism) and multiple measures of DT. Participants were 440 college students (71.4% women) endorsing a history of one or more potentially traumatic events. Participants completed the abbreviated Big Five Inventory (BFI), Distress Tolerance Scale (DTS), Discomfort Intolerance Scale (DIS), breath-holding task, and Paced Auditory Serial Addition Test (PASAT). Results of a series of hierarchical linear regressions indicated that higher levels of neuroticism and lower levels of conscientiousness were significantly associated with lower DTS scores, but no other DT measures. Greater extraversion was significantly associated with greater DT on the DIS and the PASAT. Lower levels of openness were associated with lower DT on the breath-holding task. Individual differences in normal personality traits account for significant variation in multiple measures of DT and may provide insight into the etiology of various forms of DT.

Keywords

Personality; Distress Tolerance; Trauma; College; Emotion Regulation

Corresponding author: Erin C. Berenz, Ph.D.; Department of Pediatrics; University of Virginia; Stacey Hall; 1105 West Main St. – Box 800828; Charlottesville, VA 22908; Phone: (434)982-4321; Fax: (434)924-2780; ecb2z@virginia.edu.

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Introduction

Distress tolerance (DT), the perceived or actual capacity to withstand negative physical or psychological states (Leyro, Zvolensky, & Bernstein, 2010), has emerged as a promising transdiagnostic risk marker for various forms of psychopathology. Lower levels of DT are associated with greater anxiety disorder symptoms (Bernstein, Marshall, & Zvolensky, 2011; Keough, Riccardi, Timpano, Mitchell, & Schmidt, 2010), and substance use problems (Leyro et al., 2010; Daughters, Lejuez, Kahler, Strong, & Brown, 2005). Studies conducted within trauma-exposed samples also have documented associations between lower levels of DT and greater posttraumatic stress disorder (PTSD) symptom severity (e.g., Marshall-Berenz et al., 2010; Vujanovic, Bonn-Miller, Potter, Marshall, & Zvolensky, 2011). Existing theory suggests that individuals low in DT may be more likely to engage in experiential avoidance, such as avoidant coping, which may in turn reinforce low DT (e.g., Vujanovic et al., 2011).

In spite of empirical and theoretical interest in DT, nuances in DT measurement are not well understood. Available evidence in community (McHugh et al., 2011) and trauma-exposed samples (Marshall-Berenz et al., 2010) indicates that existing measures of DT do not correspond well with one another, and are therefore not assessing one global DT construct. Distinctions have been made among DT measures on the basis of administration modality (i.e., behavioral tasks versus self-report measures) and type of distress referenced (i.e., tolerance of physical versus psychological distress). Past studies comparing DT measures have consistently documented significant associations among self-report DT measures (Marshall-Berenz et al., 2010; McHugh et al., 2011), significant associations among behavioral DT measures (Daughters et al., 2005), and a lack of correlation between self-report and behavioral DT measures (Marshall-Berenz et al., 2010; McHugh et al., 2011), regardless of the type of distress being queried (e.g., physical vs. psychological). These findings suggest that perceived (i.e., self-report) and behavioral DT may represent distinct constructs. However, little is known about the nature and etiology of perceived versus behavioral DT. Understanding why certain individuals are prone to exhibiting low perceived or behavioral DT will serve to inform theoretical models of emotion regulation, as well as transdiagnostic prevention and early intervention efforts.

Personality, trait-like stable factors (Terracciano, McCrae, & Costa, 2010; Wortman & Donnellan, 2012) may be important for informing theory on the etiology of perceived compared to behavioral DT constructs. It may be the case that personality traits exert meaningful influence over an individual's development of DT, given that personality factors influence how one interacts with their environment. Previous research has documented significant associations between trait-level neuroticism and self-report, but not behavioral, measures of DT (Kaiser Milich, Lynam, & Charnigo, 2012; Marshall-Berenz et al., 2010), suggesting that a tendency to experience high levels of negative affect may lead to lower perceived, but not behavioral, ability to cope with negative affect. Associations also have been documented between facets of impulsivity (e.g., negative urgency) and self-reported DT (Kelly, Cotter, & Mazzeo, 2014). To our knowledge, only one study to date has examined associations between trait-like personality characteristics and multiple measures of DT. Kiselica and colleagues (2014) examined associations between DT measures

(including self-report and behavioral indices of psychological DT) and personality traits in undergraduate and treatment-seeking samples. They found that lower DT on the self-report, but not behavioral DT measures, was significantly associated with greater negative urgency in both undergraduate and treatment-seeking samples. Higher mean scores on the behavioral, but not self-report DT measures, were associated with higher achievement and higher sensation-seeking in the treatment-seeking but not the undergraduate sample. However, this study did not include self-report or behavioral measures of *physical* DT, precluding an ability to evaluate differences in personality as a function of psychological compared to physical DT.

In addition, prior studies have not evaluated DT in the context of the Big Five personality traits (i.e., openness, conscientiousness, extraversion, agreeableness, & neuroticism), which are well-established dimensions of normal personality traits (John & Srivastava, 1999; McCrae & Costa, 1999). The Big Five personality traits are well validated and provide a useful framework for evaluating the role of personality in DT etiology. Finally, existing research (e.g., Marshall-Berenz et al., 2010; Vujanovic et al., 2011) and clinical practice (Linehan, 1993) highlight the importance of DT in psychological functioning among trauma-exposed individuals, necessitating study of DT and personality in trauma-exposed samples. Individuals exposed to trauma are at greater risk for a number of psychiatric disorders (Jacobsen, Southwick, & Kosten, 2001); therefore, understanding affect regulation processes in trauma-exposed populations is of particular clinical utility.

The aim of the current study was to examine concurrent associations between Big Five personality factors (i.e., openness, conscientiousness, extraversion, agreeableness, neuroticism) and multiple measures of DT (i.e., self-report and behavioral; physical and psychological) in a sample of trauma-exposed young adults. Based on extant literature, it was hypothesized that higher levels of neuroticism would be associated with lower self-reported physical and psychological DT. Evaluation of the associations between other Big Five traits and DT measures was exploratory, given the lack of prior work addressing these relationships.

Methods

Participants

Participants included 440 undergraduate students (71.4% women; $M_{age}=18.5$ years, $SD=0.63$, range=18–26) participating in a study on potentially traumatic events (PTEs) and alcohol use. Participants in the current study were a convenience sample recruited from “Spit for Science,” a university-wide investigation of college behavioral health at a large, urban, public university in the Mid-Atlantic region (Dick et al., 2014), on the basis of endorsing screening items for potentially traumatic event exposure and current (past 30-day) alcohol use. Approximately 60.9% of the sample identified as White/Caucasian, 18.6% as Black/African American, 5.1% as Hispanic/Latino, 8.3% as Asian, 6.9% as Biracial, and .2% as “unknown”.

Measures

Participant demographics (e.g., age, sex, race, ethnicity) were obtained from a self-report questionnaire.

The Traumatic Life Events Questionnaire (TLEQ; Kubany, 2004) is a 23-item self-report measure assessing whether and when participants experienced a range of PTEs (e.g., natural disaster, assault, accidents, illness/injury). The TLEQ has evidenced good test-retest reliability and good convergent validity with interview assessments of PTEs (Kubany, 2000). The present study utilized the TLEQ to measure trauma load, defined as the total number of PTE categories endorsed.

The Big Five Inventory-Revised (BFI; John & Srivastava, 1999) is a 15-item self-report measure used in the current study to assess the following personality traits: openness, conscientiousness, extraversion, agreeableness, and neuroticism. A revised version of the BFI was used in order to reduce participant burden, as the original measure contains 34-items. The 15 items retained on the revised measure were identified based on the results from an item response model fitting (i.e., common factor models and unidimensional item response theory models) conducted in the larger parent sample based on 2 time points (Dick et al., 2014). The retained items provided good discrimination compared to other items that were included as indicators of the factor (i.e., subscale) at various locations along the range of the latent factor scale. The current study utilized data from the 1st wave of the parent study. Participants rate a series of phrases, corresponding to adjectives considered to be markers of the five personality domains, on a Likert-type scale ranging from 1 (“disagree strongly”) to 5 (“agree strongly”), based on how much they perceive each phrase applies to them. Examples of phrases include: “I see myself as someone who is talkative” (extraversion), “I see myself as someone who does a thorough job” (conscientiousness), “I see myself as someone who has an active imagination” (openness), “I see myself as someone who worries a lot” (neuroticism), and “I see myself as someone who is helpful and unselfish with others” (agreeableness). Negative skewness for the Conscientiousness subscale of the BFI was corrected with a square root transformation (skewness = 0.69, kurtosis = -0.24). In the current study, the Cronbach alphas for the BFI revised subscales range from 0.59 to 0.81.

The Distress Tolerance Scale (DTS; Simon & Gaher, 2005) is a self-report measure assessing an individual’s perceived ability to withstand emotional distress in terms of tolerability, acceptability, functional interference, and emotional regulation. Respondents indicate the extent to which they agree with a series of phrases (e.g., “I can tolerate being distressed or upset as well as most people”) on a 5-point Likert-type scale ranging from 1 (“*strongly agree*”) to 5 (“*strongly disagree*”). The total DTS score was employed as a global index of perceived psychological DT ($\alpha = 0.92$).

The Discomfort Intolerance Scale (DIS; Schmidt, Richey, & Fitzpatrick, 2006) is a 5-item self-report measure assessing individuals’ perceived ability to tolerate physical distress and discomfort. Sample items include: “I can tolerate a great deal of physical discomfort” and “I have a high pain threshold.” Participants rate the degree to which each statement describes them on a Likert scale ranging from 0 (“*not at all like me*”) to 6 (“*extremely like me*”). The

DIS evidenced acceptable internal consistency ($\alpha = 0.73$) and was used as a measure of perceived physical DT.

The Paced Auditory Serial Addition Test (PASAT; Lejuez, Kahler, & Brown, 2003) is a computer-based behavioral task assessing tolerance of emotional distress. Participants are instructed to compute the sum of two digits presented in sequence. After answering the sum, the participant is then repeatedly presented with a new digit that must be added to the prior digit, ignoring the initial digit. The interval between which numbers are presented decreases over time, making correct responses increasingly difficult. The participant may terminate the task at any time during its final five minutes. The PASAT is a well-established measure of DT (Leyro et al., 2010), with latency to termination of the task (in seconds) serving as a behavioral measure of psychological DT.

The Breath-Holding Task (Hajek, Belcher, & Stapleton, 1987) is a behavioral measure of physical DT in which participants are asked to breathe normally for 30 seconds, to completely exhale when instructed, and to inhale and hold their breath as long as possible. Following a 60-second rest period, the task is repeated once more, and the average duration of breath-holding over the two trials is used as an index of DT. The current study adapted the task for computer administration, with participants being instructed when to begin holding their breath and to indicate when they exhale (i.e., discontinue) using the space bar on their computer. Average duration of breath-holding (in seconds) was employed as a behavioral measure of physical DT and exhibited good internal reliability ($\alpha = 0.88$).

Procedures

Study data were collected using REDCap (Research Electronic Data Capture), hosted at a Mid-Atlantic university in the United States (Harris et al., 2009). REDCap is a secure, web-based application for collecting and storing data.

The initial participant pool included first-year undergraduate students enrolled between 2011–2013. Students were recruited to participate in a university-wide, longitudinal study of emotional and behavioral health (full method and recruitment procedures published previously; Dick et al., 2014), during which they completed the BFI and a trauma screener. Three thousand five hundred seventy participants were asked via email whether they agreed to be contacted by study staff regarding an additional research study (i.e., current study) on the basis of having endorsed one or more potentially traumatic events at one or more assessment periods. Of those contacted, 75.5% ($n=755$) indicated interest and were subsequently emailed a link to the study description and eligibility assessment (i.e., past 30-day alcohol consumption). Eligible participants gained access to the online consent form and survey enrollment link. Seventy four percent of interested individuals ($n=557$) accessed the site, were eligible, and consented to participate. After providing online informed consent, participants completed a battery of self-report and behavioral measures online via REDCap, including the TLEQ and all DT measures. Of the individuals who consented, 89.9% ($n=501$) of the sample completed all measures; however, 10.6% ($n=59$) had missing data on key variables of interest. Participants were paid \$20 for completing the study. The university Institutional Review Board approved all study procedures.

Data Analytic Plan

Analyses were conducted in SPSS Statistics 22. Four hierarchical linear regressions were conducted to evaluate associations between personality factors and DT measures (i.e., DTS-total score, DIS-total score, PASAT performance, and breath-holding duration). The covariates of sex, trauma load, and the non-criterion DT measures were entered at level 1, and the five BFI personality factors (i.e., openness, conscientiousness, extraversion, agreeableness, and neuroticism) were entered simultaneously at level 2.

Results

Descriptive Statistics and Zero-Order Correlations

See Table 1 for descriptive statistics and zero-order correlations. The DTS was negatively correlated with neuroticism and positively correlated with conscientiousness and agreeableness. The DIS was negatively correlated with extraversion and positively correlated with neuroticism. Breath-holding duration was positively correlated with openness and negatively correlated with neuroticism. No other significant correlations between personality factors and DT variables were detected. DTS was significantly negatively correlated with DIS. There were significant associations between self-report and behavioral indices of DT, with DTS being significantly positively correlated with breath-holding duration, and DIS being significantly negatively correlated with breath-holding duration.

Personality and Self-report DT

Table 2 presents a summary of the regression output. The model significantly predicted 22.9% of variance in self-reported psychological DT (DTS total score; $F(10, 438) = 15.8, p < .001$). At level one of the model, female sex, greater trauma load, lower DIS score, and lower DT on the PASAT were associated with lower DT on the DTS. At level two, lower levels of conscientiousness and higher levels of neuroticism were significantly associated with lower DTS scores.

The model significantly predicted 9.9% of variance in self-reported physical DT (DIS total score; $F(10, 438) = 5.06, p < .001$). At level one of the model, greater trauma load, lower DT on the DTS, and lower DT on the breath-holding task were associated with lower DT on the DIS. At level two of the model, lower levels of extraversion were significantly associated with lower DT on the DIS.

Personality and Behavioral DT

Table 3 presents a summary of the regression output. The model did not significantly predict behaviorally measured psychological DT (latency to termination of the PASAT; $p > .05$). However, at level one of the model, lower DT on the DTS was significantly associated with lower DT on the PASAT, and lower DT on the breath-holding task was nominally associated with lower DT on the PASAT. At level 2, lower levels of extraversion evidenced a significant association with lower DT on the PASAT.

The model significantly predicted 8.8% of variance in behavioral physical DT (breath-holding duration; $F(10, 438) = 4.76, p < .001$). At level one of the model, female sex and

lower DT on the DIS were associated with lower DT on the breath-holding task. Lower DT on the PASAT was nominally associated with lower DT on the breath-holding task. At level 2; lower levels of openness were significantly associated with lower DT on the breath-holding task. Greater levels of neuroticism were nominally associated with shorter breath-holding duration.

Discussion

The aim of the current study was to examine associations between the Big Five personality traits and multiple measures of DT. The DT measures were selected on the basis of representing physical and psychological DT, each assessed via self-report and behavioral tasks. As hypothesized, higher levels of neuroticism were significantly related to lower self-reported psychological DT (i.e., DTS total score), accounting for 11.5% of unique variance above and beyond the covariates of other BFI personality factors, sex, trauma type load, and non-criterion DT measures. This finding is consistent with past studies that have documented correlations between trait-like neuroticism and self-report DT (Marshall-Berenz et al., 2010; Kaiser et al., 2012). It is possible that individuals high in neuroticism perceive an inability to tolerate psychological distress due to a higher frequency of experiencing negative internal states. Contrary to expectation, neuroticism was not significantly associated with self-reported physical DT (DIS score). It may be the case that individuals high in neuroticism have a disposition to internalize and focus more on distressing cognitions as opposed to somatic sensations of autonomic arousal (LeBlanc, Ducharme, & Thompson, 2004).

Lower levels of conscientiousness were associated with lower levels of self-reported psychological DT above and beyond the covariates. Individuals high in conscientiousness can be characterized as having good self-control, striving for goals, and being organized and disciplined (McCrae & Costa, 1999). It is possible that those exhibiting higher levels of conscientiousness have greater experience with successfully enduring challenging experiences. This finding was not replicated with respect to self-reported *physical* DT, suggesting that conscientiousness may be more important for understanding perceived tolerance of emotional distress. Lower levels of extraversion were significantly associated with lower levels of self-reported physical DT (i.e., higher DIS total score). Individuals high in extraversion tend to experience more frequent positive affect (Smillie, DeYoung, & Hall, 2015), which has been associated with lower pain perception (Pulvers & Hood, 2013). This association was not observed with respect to self-reported psychological DT, providing some specificity for an association between extraversion and perceived *physical* DT.

In terms of behavioral DT, lower levels of openness were significantly associated with lower physical DT (i.e., shorter breath-holding duration). Individuals high in openness are characterized by being more receptive to new experiences, which may lead them to be curious about or even excited by changes in their interoceptive experience. Openness is positively associated with sensation seeking (Aluja, Garcia, Garcia, 2003), which also is correlated with greater behavioral DT (Kiselica et al., 2014). Finally, greater levels of neuroticism were nominally associated with shorter breath-holding duration. Individuals high in neuroticism tend to exhibit greater anxiety sensitivity, a fear of anxiety and related

sensations (Chowdhury, Kevorkian, Zvolensky, & Berenz, 2015). It may be the case that individuals high in neuroticism exhibit low tolerance for physical distress given that they are more fearful of the consequences of physiological arousal.

The model was not significantly associated with behaviorally indexed psychological DT (i.e., PASAT). However, an association was observed between lower levels of extraversion and shorter latency to termination of the PASAT. Extraverted individuals may exhibit greater task persistence. Previous studies have demonstrated associations among positive affect, higher achievement, and greater behavioral DT (exhibited via PASAT performance; Kiselica et al., 2014). Individuals high in extraversion tend to experience greater positive affect in terms of assertiveness and enthusiasm, and such components of extraversion are related to feelings of vigor that accompany greater reward sensitivity and related motivation to pursue reward (DeYoung, 2013; Smillie et al., 2015).

Although not a primary aim of this study, it is worth noting that significant correlations were observed between self-report and behavioral measures of DT, a finding inconsistent with past multi-modal studies of DT (Marshall-Berenz et al., 2010; McHugh et al., 2011). This finding may be explained by shared method variance (i.e., all measures and tasks were completed on participants' home computers). Further research on the potential effects of administration method on DT performance may be useful, although computer-based administrations of DT tasks have been successfully employed in numerous prior studies (e.g., Daughters, Sargeant, Bornovalova, Gratz, & Lejuez, 2008; Tombaugh, 2006).

The current study has a number of limitations. First, this study was cross-sectional, preventing causal or directional inferences of the noted relationships. Future studies utilizing longitudinal assessment would help elucidate temporal and functional relations among personality and DT. Second, the generalizability of the findings is limited to trauma-exposed college students. Third, the sample consisted primarily of women, limiting our ability to examine sex differences in the observed associations. Finally, the current study was not able to evaluate the potential role of psychopathology in the observed associations. Replication and extension of these findings will be important.

In spite of these limitations, the current study was the first to our knowledge to evaluate differential associations between the Big Five personality traits and various measures of psychological and physical DT. DT is a complex construct, and understanding its relationship with respect to well-established normative personality factors aids in advancing the conceptualization of various measures of DT. These findings provide initial insight into possible etiological links between personality and DT that warrant further study.

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Highlights

- Studied associations between personality factors and distress tolerance measures
- High neuroticism was associated with lower self-reported distress tolerance
- High extraversion was associated with greater self-reported DT
- High extraversion was associated with greater behavioral DT
- Low openness was associated with lower behavioral physical distress tolerance

Table 1

Descriptive statistics and zero-order correlations

Variable	1	2	3	4	5	6	7	8	9	10	Mean (SD) or %
1. Sex (1=male, 2=female)	--										71.4% female
2. Trauma Load	.09	--									4.6 (2.7)
3. BFI-Openness	-.08	.09	--								12.6 (2.0)
4. BFI-Conscientiousness	.07	.05	-.03	--							13.4 (1.7)
5. BFI-Extraversion	.08	-.01	.07	-.01	--						11.0 (2.9)
6. BFI-Agreeableness	.06	-.03	.03	.24**	-.05	--					12.1 (2.1)
7. BFI-Neuroticism	.33**	.09	-.09	-.19**	0	-.25**	--				8.6 (2.9)
8. DTS Total Score	-.16**	-.17**	-.04	.16**	.05	.11*	-.45**	--			44.8 (12.5)
9. DIS Total Score	.08	.09	-.05	-.06	-.13**	-.02	.18**	-.22**	--		13.1 (5.3)
10. BH Duration	-.20**	.03	.13**	-.03	-.03	-.04	-.16**	.13**	-.17**	--	51.1 (29.9)
11. PASAT	.05	.03	.01	.07	.09	.03	0	.09	-.02	.09	135.4 (123.3)

Note:

*
 $p < 0.05$,**
 $p < 0.001$;

BFI = Big Five Inventory (John & Srivastava, 1999); DTS = Distress Tolerance Scale (Simons & Gaher, 2005); DIS = Discomfort Intolerance Scale (Schmidt et al., 2006); BH Duration = Average breathing duration (Hajek et al., 1987); PASAT = latency to termination of the Paced Auditory Serial Addition Task (Lejuez et al., 2003)

Table 2

Linear regression results for personality & self-reported distress tolerance

Variable	R^2	t	β	sr^2	p
Criterion Variable: Distress Tolerance Scale					
Level 1	0.11				< 0.001
Sex		-2.46	-0.12	0.012	0.014
Trauma Load		-4.18	-0.91	0.036	< 0.001
DIS		-4.51	-0.21	0.042	< 0.001
Breath-Holding Task		1.30	0.06	0.003	0.196
PASAT		2.03	0.09	0.008	0.04
Level 2	0.16				< 0.001
BFI-Openness		-1.61	-0.07	0.004	0.108
BFI-Conscientiousness		2.23	0.10	0.008	0.026
BFI-Extraversion		0.68	0.03	0.001	0.498
BFI-Agreeableness		-0.11	-0.01	< 0.001	0.912
BFI-Neuroticism		-8.21	-0.39	0.115	< 0.001
Criterion Variable: Discomfort Intolerance Scale					
Level 1	0.08				< 0.001
Sex		0.69	0.03	0.001	0.494
Trauma Load		-2.71	-0.13	0.016	0.007
DTS		-4.51	-0.22	0.043	< 0.001
Breath-Holding Task		-2.96	-0.14	0.018	0.003
PASAT		0.38	0.02	< 0.001	0.706
Level 2	0.02				< 0.001
BFI-Openness		-0.16	-0.01	< 0.001	0.875
BFI-Conscientiousness		-0.42	-0.02	< 0.001	0.673
BFI-Extraversion		-2.86	-0.13	0.017	0.004
BFI-Agreeableness		0.28	-0.01	< 0.001	0.780
BFI-Neuroticism		1.32	0.07	0.004	0.189

Note: Sex: 1=male, 2=female; Distress Tolerance Scale (DTS); Discomfort Intolerance Scale (DIS); Breath-Holding Task; Paced Auditory Serial Addition Test (PASAT); Big Five Inventory (BFI)

Table 3

Linear regression models for personality & behavioral distress tolerance

Variable	R^2	t	β	s^2	p
Criterion Variable: Breath-Holding Duration					
Level 1	0.08				< 0.001
Sex		-3.82	-0.18	0.031	< 0.001
Trauma Load		0.60	0.03	0.001	0.547
DTS		1.30	0.06	0.004	0.196
DIS		-2.96	-0.14	0.019	0.003
PASAT		1.85	0.09	0.007	0.065
Level 2	0.03				< 0.001
BFI-Openness		2.39	0.11	0.012	0.017
BFI-Conscientiousness		-0.80	-0.04	0.001	0.427
BFI-Extraversion		-1.43	-0.07	0.004	0.153
BFI-Agreeableness		-0.85	-0.04	0.002	0.397
BFI-Neuroticism		-1.78	-0.10	0.007	0.076
Criterion Variable: Paced Auditory Serial Addition Test Performance					
Level 1	0.02				0.104
Sex		1.53	0.08	0.005	0.126
Trauma Load		0.50	0.03	0.001	0.617
DTS		2.03	0.10	0.009	0.043
DIS		0.38	0.02	< 0.001	0.706
Breath-Holding Task		1.85	0.09	0.007	0.065
Level 2	0.01				0.152
BFI-Openness		-0.04	< 0.01	< 0.001	0.966
BFI-Conscientiousness	1.01	0.05	0.002	0.313	
BFI-Extraversion	1.97	0.10	0.009	0.049	
BFI-Agreeableness	0.29	0.02	< 0.001	0.769	
BFI-Neuroticism	0.88	0.05	0.002	0.381	

Note: Sex: 1=male, 2=female; Distress Tolerance Scale (DTS); Discomfort Intolerance scale (DIS); Breath-Holding Task : Paced Auditory Serial Addition Test (PASAT); Big Five Inventory (BFI)