Dispositional Traits and Adverse Childhood Experiences as Correlates of PTSD Symptoms

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Introduction

◆ Posttraumatic Stress Disorder (PTSD) is associated with substantial personal distress and impairment, as well societal and economic costs.

◆ Understanding risk factors that influence PTSD development can inform treatment theory and practice.

◆ Adverse Childhood Experiences (ACE) have been associated with various negative outcomes, including risk of developing PTSD.

◆ Recent research implicates Intolerance of Uncertainty (IU) and Behavioural Inhibition (BI) as risk factors for PTSD symptom development.
  ◆ IU is a tendency to be distressed by uncertain future events.
  ◆ BI is a tendency to be distressed by and avoid unfamiliar people or situations.
  ◆ IU and BI are closely related constructs, and have both been implicated in anxiety development.

◆ No study has concurrently examined the association between ACE, IU, and BI in relation to PTSD symptoms.

◆ The present study examined the inter-relationships between PTSD symptoms and each of ACE, IU, and BI.

Method

◆ A total of 138 community members (M_{age} = 21.87, SD = 2.56; 39% male) completed measures as part of a larger online study examining risk factors for anxiety.

◆ Self-Report Measures included:
  ◆ Adverse Childhood Experiences-International Questionnaire (ACE-IQ) – a 31-item measure that assesses prevalence of negative childhood experiences.
  ◆ Intolerance of Uncertainty Scale-Short Form (IUS-12) – a 12-item measure that assesses individual responses to uncertainty.
  ◆ Retrospective Measure of Behavioral Inhibition (RMBI) – an 18-item measure that assesses avoidance of the unfamiliar before the age of 13.
  ◆ PTSD Checklist for DSM 5 (PCL-5) – a 26-item measure that assesses severity of PTSD symptoms.

◆ Bivariate Pearson correlations were conducted between all dependent and independent variables.

◆ Hierarchical multiple regression was performed, with PCL-5 scores as the dependent variable.
  ◆ IUS-12 and RMBI were entered as independent variables at Step 1.
  ◆ ACE-IQ was entered at Step 2.

Results

◆ Descriptive statistics are presented in Table 1.

◆ Pearson correlation results for relationships between ACE, IU, BI, and PCL-5 are presented in Table 2.
  ◆ Several positive associations were identified, including statistically significant relationships between ACE-IQ and PCL-5, ACE-IQ and IUS-12, ACE-IQ and RMBI, as well as IUS-12 and RMBI.

◆ Hierarchical multiple regression analyses are presented in Table 3.
  ◆ Model 1 was not statistically significant ($F_{[2,135]}$ = 0.98, p = .38, R^2 = .01).
    ◆ IUS-12 was not a statistically significant correlate (β = .13, p = .17).
    ◆ RMBI was not significant (β = -.02, p = .81).
  ◆ Model 2 was statistically significant, ($F_{[3,134]}$ = 4.59, p < .01, R^2 = 0.09).
    ◆ ACE-IQ score was the only statistically significant correlate (β = .29, p < .01) in Model 2.
    ◆ IUS-12 was not significant (β = .05, p > .05).
    ◆ RMBI was not significant (β = -.04, p > .05).
  ◆ Addition of ACE-IQ scores at Step 2 accounted for significantly more variance (ΔR^2 = .08, ΔF = 3.61, p < .01).

Discussion

◆ The current results suggest ACE are associated with PTSD symptoms later in life.

◆ ACE may contribute to PTSD by compromising perceptions of safety or exacerbating other risk factors for PTSD.
  ◆ Alternatively, the ACE reported by participants may have been traumatic events (e.g., sexual abuse) causal to the reported PTSD symptoms.

◆ Contrary to expectations and previous research, IU and BI were not significant correlates of PTSD.
  ◆ Theoretically, individuals prone to distress by uncertainty and the unfamiliar (i.e., high in IU and BI, respectively) may be at greater risk for developing PTSD or other maladaptive responses to trauma due to the uncertain nature of traumatic events and personal ability to respond to trauma.
  ◆ ACE may interact with and exacerbate trait IU.

◆ Low mean trauma levels in the current sample may have impaired ability to detect expected relationships.

◆ The current sample was derived from a general population of community members; future research should concurrently and prospectively study the influence of ACE, BI, and IU on PTSD with trauma-exposed clinical samples.

Table 1. Descriptive Statistics

Scale	M	SD
ACE-IQ	5.90	2.43
IUS-12	38.76	12.70
RMBI	20.03	7.19
PCL-5	10.26	18.34

Note: ACE-IQ = Adverse Childhood Experiences-International Questionnaire total score; IUS-12 = Intolerance of Uncertainty Scale-Short Form total score; RMBI = Retrospective Measure of Behavioral Inhibition total score; PCL-5 = PTSD Checklist for DSM-5 total score.

Table 2. Bivariate Pearson Correlations

	PCL-5	IUS-12	RMBI
IUS-12	0.11		
RMBI	0.01	0.36**	
ACE-IQ	0.39**	0.29**	0.11*

Note: ACE-IQ = Adverse Childhood Experiences-International Questionnaire total score; RMBI = Retrospective Measure of Behavioral Inhibition total score; IUS-12 = Intolerance of Uncertainty Scale-Short Form total score; PCL-5 = PTSD Checklist for DSM-5 total score. *p < 0.05, **p < 0.01

Table 3. Hierarchical Multiple Regression Analysis Predicting PCL-5 Scores

Model	Predictor	b	β	t	p	R	R^2	F	p
1						.12	.01	0.98	.377
	IUS-12	0.17	.13	1.38	.171				
	RMBI	-0.05	-.02	-0.24	.809				
2						.31	.09	4.59	.004
	IUS-12	0.06	.05	0.53	.595				
	RMBI	-0.10	-.04	-0.49	.628				
	ACE-IQ	2.35	.29	3.41	.001				

Note: ACE = Adverse Childhood Experiences-International Questionnaire total score; RMBI = Retrospective Measure of Behavioral Inhibition total score; IUS-12 = Intolerance of Uncertainty Scale-Short Form total score; PCL-5 = PTSD Checklist for DSM-5 total score.