



Examining Callous-Unemotional Traits in At-Risk Youth on the Personality Assessment Inventory - Adolescent: Theoretical and Clinical Considerations



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Introduction

- Callous-unemotional (CU) personality traits (e.g., low empathy, limited emotional expression, lack of guilt) characterize an adolescent subgroup that perpetrate severe aggressive or antisocial behavior, while receiving lower benefit from treatment (Frick & Dickens, 2006).
- Broadband personality trait inventories allow assessment of clinically-relevant symptoms and behaviors correlated to CU traits to inform risk assessment or treatment planning. The Dimensional Personality Symptom Item Pool and Schedule for Nonadaptive and Adaptive Personality-Youth have been applied to CU traits (Decuyper et al., 2011; Latzman et al., 2013); however, these measures may have limited clinical utility and low prevalence in applied settings.
- This study is the first to examine the relation of CU traits to a prevalent measure of personality and psychopathology – the Personality Assessment Inventory – Adolescent (PAI-A; Morey, 2007), while also considering relevance to the DSM-5's "limited prosocial specifier" for Conduct Disorder (APA, 2013).
- We expected PAI-A clinical scales of Antisocial Features (ANT) and Aggression (AGG) with differing predictive abilities across their subscales, as well as scales assessing an interpersonal style high in dominance and low in warmth, to uniquely predict CU traits. Emotional functioning scales (e.g. Depression and Anxiety) will be examined due to mixed prior research (e.g. Frick & White, 2008; Berg et al. 2013)

Methods

Sample

- 236 at-risk adolescents solicited from a military-style residential program in the southeastern U.S.
- 81.1% male, average age of 16.7 (SD = 0.77)
- 60.8% Caucasian, 28.8% African-American, 2.4% Hispanic, and 8% Other.
- 37.7% with one or more arrests, 9.9% prior to age 15.
- Based on PAI-A validity scores, 17 cases were removed.

Procedure

- Part of a larger data collection at residential facility
- Computerized administration of the Inventory of Callous-Unemotional Traits (ICU; Frick, 2003) with Callous, Uncaring and Unemotional subscales, and the PAI-A.

Results

Data Analysis Procedure

- Zero-order correlations were calculated between ICU scores, PAI-A scales, and demographics. Correlations at $r \geq .20$ were retained for regression analyses.
- Multiple regression analyses were performed predicting ICU total and each subscale. Regression analyses were conducted by PAI-A substantive scale set (See Table 1). and by subscale set. Covariates (e.g. sex) were entered before predictors.

Regression Results of PAI-A Scales

- Overall, PAI-A scales explained 52.7% (adj. $R^2 = .50$) of the variance in ICU total, 24.9% (adj. $R^2 = .22$) in Callous, 52.3% (adj. $R^2 = .50$) in Uncaring, and 10.2% (adj. $R^2 = .08$) in Unemotional scores.

Predicting ICU Total and Subscales from PAI-A Substantive Scales

	Clinical Scales							
	Callous		Uncaring		Unemotional		ICU Total	
	β	t	β	t	β	t	β	t
Sex	.06	.78	-.12	-1.68	-.07	-.94	-.04	-.485
Prior Arrest	.00	.01	.21	2.94	.03	.36	.13	1.86
SOM	-.08	-.78	-	-	-	-	-.19	-2.08
DEP	.08	.67	.18	1.70	-	-	.47	4.29
MAN	-	-	-.32	-4.19	-	-	-	-
PAR	.16	1.48	-	-	-	-	.08	.79
SCZ	.04	.33	.06	.53	.21	2.80	.09	.45
BOR	.03	.22	-	-	-	-	-.27	-2.23
ANT	.34	3.03	.17	1.76	-	-	.42	4.13
ALC	-.01	-.14	-	-	-	-	-.09	-1.09
DRG	.03	.26	.11	1.25	-	-	.05	.58
R^2	.24		.32		.05		.38	

	Treatment Consideration Scales							
	Callous		Uncaring		Unemotional		ICU Total	
	β	t	β	t	β	t	β	t
Prior Arrest	.07	.96	.12	1.80	.02	.26	.12	1.79
AGG	.24	3.05	.27	3.77	-	-	.29	4.31
SUI	.06	.67	-	-	-	-	-.04	-.61
STR	-	-	-	-	.11	1.43	-	-
NON	.20	2.60	.33	4.86	.28	3.58	.44	6.45
RXR	-.08	-1.00	-	-	-	-	-	-
R^2	.21		.28		.12		.38	

	Interpersonal Scales							
	Callous		Uncaring		Unemotional		ICU Total	
	β	t	β	t	β	t	β	t
WRM	-	-	-.57	-9.28	-	-	-.47	-7.08
R^2	-		.32		-		.22	

Table 1

N = 219.

Significant unique effects at $p < .05$ level are **bolded**.

SOM = Somatic Complaints
 DEP = Depression
 MAN = Mania
 PAR = Paranoia
 SCZ = Schizophrenia
 BOR = Borderline Features
 ANT = Antisocial Features
 ALC = Alcohol Problems
 DRG = Drug Problems
 AGG = Aggression
 SUI = Suicide Ideation
 STR = Stress
 NON = Nonsupport
 RXR = Treatment Rejection
 WRM = Warmth

Regression Results of PAI-A Subscales

- ICU total** was positively predicted by: ANT-A (Antisocial Behaviors; $\beta = .25, p = .005$); ANT-E (Egocentricity; $\beta = .19, p = .011$); AGG-A (Aggressive Attitude; $\beta = .34, p = .001$); DEP-A (Affective; $\beta = .24, p = .019$); BOR-A (Affective Instability; $\beta = .44, p < .001$); and BOR-S (Self-Harm; $\beta = .23, p = .005$) and negatively predicted by BOR-N (Negative Relationships; $\beta = -.19, p = .028$)
- Callous** was positively predicted by ANT-E (Egocentricity; $\beta = .33, p < .001$); AGG-A (Aggressive Attitude; $\beta = .23, p = .032$); AGG-P (Physical Aggression; $\beta = .24, p = .031$).
- Uncaring** was positively predicted by AGG-A (Aggressive Attitude; $\beta = .8, p < .001$); and negatively predicted by MAN-I (Irritability; $\beta = -.21, p = .013$);
- Unemotional** was positively predicted by SCZ-S (Social Detachment; $\beta = .20, p = .007$).
- Note: ANT-S (Sensation Seeking) and AGG-V (Verbal Aggression) were not significant predictors.

Discussion

- PAI-A scales explained over half the variance in ICU scores, comparable to the predictive utility of personality measures examined by Decuyper et al., 2011 and Latzman et al., 2013, while adding validity indicators, treatment-relevant scales, and standardized norms.
- Results supported expectations that ANT and AGG scales predict CU traits, while revealing subscale-level nuances. Partially consistent with Kimonis et al. (2008) and Ansel, et al. (2015), Callous was associated with greater aggression (i.e. attitudes and physical) and antisocial egocentricity, while Uncaring was associated with aggressive attitudes.
- Traditional CU trait conceptualizations emphasize deficits in emotional functioning (e.g. Frick & White, 2008). Although affective depression (as in Berg et al., 2013; Decuyper et al., 2011) and borderline features were positively linked to CU traits, this was indicated for aggregate CU traits rather than a particular subscale.
- The DSM-V specifier "limited prosocial emotions" requires the presence of any 2 out of 4 symptoms. Our findings suggest greater risk for antisociality and physical aggression at higher levels of Callous-specific symptoms such as "callous-lack of empathy" compared to others (e.g., "unconcerned about performance").
- This study was limited to self-report and may not generalize beyond at-risk youth in residential settings. PAI-A scales may not capture all CU traits (e.g. empathy deficits). Additional research can examine PAI-A correlates of CU traits in other populations, use multiple reporters, and consider the practical utility of the PAI-A to inform risk assessment or treatment.

Implications

- The heterogeneous correlates of CU traits warrant differential considerations for risk assessment or treatment. Callousness may be a focus for aggression, while correlates of other CU traits (e.g. social detachment, depression) may require alternative considerations (e.g. interpersonal therapy).
- Overall, PAI-A correlates of CU traits were largely consistent with the literature, while opening possibilities for examining nuanced or differential relations of the CU traits. Importantly, the PAI-A representation of CU traits can inform clinical assessment or treatment planning.