



Associations between Psychopathic Traits and Readiness for Change: An exploratory analysis



Christine Galvan Salcido^{a,*}, James V. Ray^b, Michael Caudy^b, Jill Viglione^b, Rebecca J. Walter^c

^a Department of Criminal Justice, College of Public Policy, University of Texas at San Antonio, 501 W. Cesar E. Chavez Blvd., San Antonio, TX 78207, United States of America

^b Department of Criminal Justice, College of Community Innovation and Education, University of Central Florida, 12494 University Blvd., Orlando, FL 32816, United States of America

^c Department of Real Estate, College of Built Environments, University of Washington, 317 Gould Hall, Seattle, WA 98195, United States of America

ARTICLE INFO

Keywords:

Psychopathy
Readiness to change
Triarchic Psychopathy Measure
Reentry
Offender

ABSTRACT

Readiness to change (RTC) indicates an individual's recognition of a problem as well as confidence in their ability to change (Gaume, Bertholet, & Daeppen, 2016), and is hypothesized to play an important role in therapeutic processes aimed at changing offending behaviors (Polaschek & Ross, 2010). However, prior research has generally failed to consider RTC among severe offender subgroups (Hodge & Renwick, 2002; Howells & Day, 2007) such as those with psychopathic personality features whom have often been characterized as resistant to treatment (Harris & Rice, 2006; Salekin, 2002). In the current sample of formerly incarcerated persons ($N = 70$), we explore the relationship between psychopathic personality traits, as measured by the Triarchic Psychopathy Measure (TriPM; Patrick, 2010), and the unique components of RTC, as measured by an originally constructed assessment called the Change Readiness Scale (CRS). Each item of the CRS has been empirically supported and combined to form five subscales of change readiness (recognition, action, social bonds, human agency, and self-efficacy). Results show unique associations between the subscales of the TriPM and aspects of the RTC construct, yielding it necessary to further explore these relationships to better understand how these factors may contribute to treatment and justice system outcomes.

1. Introduction

Readiness to change (RTC) has been defined as “the presence of characteristics (states or dispositions) within either the client or the therapeutic situation, which are likely to promote engagement in therapy and that thereby, are likely to enhance therapeutic change” (Day, Casey, Ward, Howells, & Vess, 2014, p. 145). The RTC construct has also been identified throughout literature as a combination of internal and external factors (e.g., motivation, program responsivity, therapeutic alliance, and contextual variables) that influence personal engagement in therapeutic and rehabilitative processes (Looman, Abracen, Serin, & Marquis, 2005). According to Howells and Day (2007), RTC is influenced by an individual's capacity to experience, express, and reflect upon emotions, and an ineptness to do so is an impediment to the effectiveness of therapeutic processes. Furthermore, prior research has suggested that those with specific personality constructs (e.g. impulsivity, recklessness, callousness) are also likely to have risk factors that are known to inhibit readiness for change

(Gaume, Bertholet, & Daeppen, 2016; Howells & Day, 2007; Kazemi, Levine, Dmochowski, Horn, & Qi, 2015).

One such personality construct is psychopathy which can be characterized by interpersonal deficits (e.g., superficial, glib, lying, and manipulative), affective deficits (e.g., callous, lack of remorse, and emotional depravity), and behavioral features (e.g., criminal history, impulsive, reckless, and risk-seeking) with three or four dimensions (see e.g., Cooke & Michie, 2001; Hare & Neumann, 2006). The number of dimensions identified is largely contingent on the inclusion of items that capture criminal behavior with four dimensions being identified when such items are considered (Hare & Neumann, 2006). Theories of psychopathy posit that the fundamental manifestations of the disorder (i.e., superficial charm, lack of anxiety, incapacity to establish meaningful relationships, egocentricity) translate into self-defeating behaviors conducive to difficulties with impulsivity, hostility, or deceitfulness (Skeem & Cooke, 2010). Behavioral and cognitive deficits such as these are likely to impede effective engagement in a therapeutic setting, resulting in the inability to form a working alliance between

* Corresponding author.

E-mail address: christinesalcido@yahoo.com (C.G. Salcido).

psychopathic offenders and treatment staff, which has been identified throughout mental health literature as central to any progress that may reduce an offender's criminal risk (Fishbein et al., 2009; Polaschek & Ross, 2010).

2. Literature review

Various measures of psychopathy exist with Hare's (2003) Psychopathy Checklist – Revised (PCL-R) often referred to as the gold standard for assessing psychopathic personalities. However, the PCL-R is a semi-structured clinical tool that requires extensive training, administration time, and collateral information. Considering these limitations, particularly for research purposes, self-report measures of psychopathy have been introduced, including the Levenson Self-Report Psychopathy Scale (LSRP; Levenson, Kiehl, & Fitzpatrick, 1995), the Psychopathic Personality Inventory – Revised (PPI-R; Lilienfeld & Widows, 2005), and more recently the Triarchic Psychopathy Measure (TriPM; Patrick, 2010). The TriPM conceptualization of psychopathy is described in terms of three distinct symptomatic constructs: boldness, meanness, and disinhibition (Patrick & Drislane, 2015; Stanley, Wygant, & Seldom, 2013). These sub-dimensions of the TriPM overlap conceptually with the Interpersonal, Affective, and Behavioral aspects, respectively, of three- and four-factor models based on other psychopathy measures (see Evans & Tully, 2016 for a review). Specifically, boldness includes social dominance, the lack of anticipatory fear, impulsivity, and emotional resiliency; meanness is described by a lack of affiliative capacity, predatory exploitativeness, and empowerment through destructiveness and cruelty; while, disinhibition is characterized by weak restraint, hostility, and mistrust (Patrick & Drislane, 2015).

According to Anderson and Kiehl (2014), psychopaths represent approximately 20% of the prison population in North America. Due to their resiliency toward treatment, it has also been suggested that this subpopulation of criminal offenders expends a remarkably disproportionate amount of criminal justice resources (Kiehl & Hoffman, 2011). Understanding how psychopathic traits are associated with factors related to treatment engagement (e.g., RTC), is an important step in developing effective treatment options for such individuals. However, research has yet to examine how psychopathic traits, and more specifically, the TriPM, might directly relate to factors associated with treatment success including RTC. Nevertheless, there is indirect evidence regarding psychopathy that more generally implicates its importance in the RTC-treatment process (Howells & Day, 2007).

Ogloff, Wong, and Greenwood (1990) found that those scoring high on psychopathy showed significantly less motivation and improvement as well as less time to discharge compared to non-psychopathic and mixed groups. Simpson, Frick, Kahn, and Evans (2013) suggest that adolescents possessing Callous-Unemotional (CU) Traits mirror the behavior of adults with psychopathic traits and that such individuals can form a therapeutic alliance, thus seeming more engaged in the treatment process, but only in a superficial and manipulative manner based on attributes of CU traits and psychopathy. Fishbein et al. (2009) found that behavioral disinhibition—measured in part by impulsivity tasks and risky decision responses—may be informative in determining treatment readiness preparations for offenders who are currently viewed as untreatable. When looking specifically at offender groups, Looman et al. (2005) found that psychopathic offenders showed significantly less motivation and were generally unresponsive to the treatment process, suggesting that conventional treatment programs may not be suitable for this specific subgroup of offenders. However, there is a lack of research examining unique associations between psychopathy dimensions and aspects of readiness for change (Glenn, Efferson, Iyer, & Graham, 2017).

Research focusing on the role of RTC in the effectiveness of interventions designed to address addictive behaviors (e.g., alcohol use, drug use, smoking) provides indirect support for examining associations between specific psychopathic personality traits (e.g., boldness,

meanness, and disinhibition) and RTC constructs. For example, Holthouser and Bui (2015), in examining antisocial personality disorder (ASPD)—characterized by social deviances, disregard for others, lack of empathy (Kimonis, Kennealy, & Goulter, 2016), and self-regulatory deficits—found that individuals with ASPD have issues with problem recognition, and are particularly resistant to the therapeutic process. When evaluating personality risk factors and RTC in a group of college students participating in alcohol intervention programs, Kazemi et al. (2015) found that impulsivity decreased slightly over time throughout the action state of change readiness. Dowd and Wallbrown (1993) found that individuals exhibiting the most resistance to change within correctional therapy programs were more likely to be aggressive, dominant, and autonomous, lacking any strong social relationships with others. However, the limited research examining associations between psychopathic traits with aspects of RTC, specifically within offender populations, justifies a need to further examine these associations.

3. Current study

The current study utilizes data obtained from a larger study examining the reentry process. The goal of the current study is to highlight the potential influence of psychopathy on the reentry process by exploring the associations between psychopathic traits and RTC in a reentry population. Specifically, we examine if performance on the TriPM will predict performance on a new measure designed to assess RTC called the Change Readiness Scale (CRS). We explore the unique associations among each of the scales at the dimensional level using hierarchical linear regression. However, because research has yet to examine these unique associations, this aspect of the study is somewhat exploratory and, therefore, we do not make specific hypotheses regarding these associations. Additionally, because demographic variables such as gender, age, and education (see e.g., Fishbein et al., 2009; Holthouser & Bui, 2015; Kazemi et al., 2015; Looman et al., 2005) as well as substance use (see e.g., Carey, Purnine, Maisto, & Carey, 1999) have been associated with not only criminal risk, but RTC and psychopathy as well, they are also included in our examinations to avoid potentially spurious relationships between aspects of RTC and the TriPM.

4. Methods

4.1. Participants

Participants in this study include 70 individuals who were released from a prison or jail facility within 3 months of study enrollment. Table 1 presents a description of the sample population. In total, 55.7% of the sample identified as male ($n = 39$) with a mean age of 40 ($SD = 10.95$) and about 74% ($n = 55$) reported receiving their high school diploma or equivalent. When asked if they had used drugs or alcohol within the past 12 months, prior to the interview date, 82.9% of participants responded “yes”.

4.2. Procedures

Participants were recruited from the Bexar County Reentry Services Center, a community-based reentry program that partners with local non-profit agencies to help individuals recently released from incarceration across a range of domains (e.g., employment, education, housing). Participants were made aware of the study and invited to participate in two interviews if they were at least 18-years of age and released from incarceration within the last 90 days of initial contact. To encourage participation, subjects were offered financial compensation in the form of gift cards (\$50–\$100). To ensure high retention rates, all participants were advised they would receive an additional \$50 gift card at the three-month follow-up interview.

Table 1
Sample demographics and descriptive statistics.

Variable	Frequency	%	Mean	SD	Range
Gender					
Male	41	58.6	–	–	–
Female	29	41.4	–	–	–
Age	–	–	40	10.95	20–59
Hispanic	47	67.1	–	–	–
Educational attainment					
Less than High School	15	20.3	–	–	–
High School	55	74.3	–	–	–
College	3	4.1	–	–	–
Graduate School	1	1.3	–	–	–
Substance use (within the last 12 months)					
No	12	17.1	–	–	–
Yes	58	82.9	–	–	–
Triarchic psychopathy measure					
Total TriPM	–	–	137.49	18.80	106–183
Boldness	–	–	54.61	8.40	38–71
Meanness	–	–	30.33	10.08	19–66
Disinhibition	–	–	52.54	11.49	223–74
Change readiness scale					
Recognition	–	–	34.54	3.62	24–40
Action	–	–	32.43	2.33	27–35
Social bonds	–	–	31.66	2.99	24–35
Human agency	–	–	61.10	5.93	45–70
Self-efficacy	–	–	40.27	4.03	28–45

Notes: SD = standard deviation.

Researchers obtained informed consent from each participant before interviews began. This process outlined the purpose of the study, benefits and potential risks, along with information pertaining to confidentiality and compensation. Primary data collection consisted of interviewers guiding participants through a structured interview as they recorded participant responses. This process was conducted with the ethical approval of all relevant bodies including that of the Institutional Review Board (IRB).

4.3. Measures

4.3.1. Psychopathic personality

The TriPM (Patrick, 2010) is a 58-item self-report questionnaire intended to measure psychopathy in terms of three distinct phenotypic constructs (Patrick, Fowles, & Krueger, 2009): boldness (19 items), defined as the nexus of high dominance, low anxiousness, and venturesomeness; meanness (19 items), reflecting tendencies toward callousness, cruelty, predatory aggression, and excitement seeking; and disinhibition (20 items), reflecting tendencies toward impulsiveness, irresponsibility, oppositionality, and anger/hostility. Each construct was measured by a separate subscale and subscale scores are summed to yield a total psychopathy score. Each item is measured based on a 1–4 Likert-type scale (1 = False; 4 = True) and scoring was reversed for items worded in the opposite direction of higher psychopathy. The internal reliabilities for the current sample are: total TriPM ($\alpha = 0.82$), boldness ($\alpha = 0.74$), meanness ($\alpha = 0.88$), and disinhibition ($\alpha = 0.84$).

4.3.2. Readiness to change

Consisting of five subscales (recognition, action, social bonds, human agency, and self-efficacy), the CRS was developed specifically for the *Elucidating the Mechanisms of Reentry* study. Each subscale was designed using items identified as accurate measures of readiness for change based on a review of extant research. The recognition (8 items) and action (7 items) subscales were designed to assess the readiness for change post-release, while human agency (14 items), social bonds (7 items), and self-efficacy (a 9-item scale adapted from a previously validated measure of self-efficacy called the *New General Self-Efficacy Scale*; Chen, Gully, & Eden, 2001) were designed to measure the

capacity for change post-release. Compiled from multiple sources, each item was measured based on a 0–5 Likert-type scale (1 = *strongly disagree*; 5 = *strongly agree*). Additionally, for any items worded in the direction of resistance toward change, scoring was reversed. The internal reliabilities for the current sample are: recognition ($\alpha = 0.55$), action ($\alpha = 0.72$), social bonds ($\alpha = 0.60$), human agency ($\alpha = 0.78$), and self-efficacy (0.87).

4.3.3. Demographic controls

The interview also asked participants to report their age, gender (male = 1, female = 2), educational attainment (Less than High School = 1, High School = 2, College = 3, Graduate School = 4), and ethnicity (Hispanic; No = 0, Yes = 1).

4.4. Analytic approach

The current study intended to measure the association between the different domains of the triarchic psychopathy model and different aspects of RTC in an offender population. Thus, bivariate correlations were first examined among the main study variables. However, to account for the effects of age, gender, educational attainment, ethnicity, and substance use as well as identify the unique associations of the TriPM dimensions with the CRS, we conducted multivariate regression. Specifically, we ran a series of hierarchical regression models in which CRS subscales were regressed onto demographic characteristics in the first step and then the TriPM subscales in the second step.

5. Results

5.1. Bivariate correlations

We first examined the associations between the total TriPM and each of the CRS scales; however, none of them showed significant associations. Thus, we focus on the TriPM subscales. Table 2 displays the results from a bivariate correlation analysis that was conducted to determine the relationships between the TriPM subscales and the CRS scales. Intercorrelations between the TriPM subscales meanness and disinhibition were significant, $r(70) = 0.284$, $p = .017$; however, none of the other intercorrelations were significant. Significant correlations were also observed between each TriPM scale and four of the five CRS subscales which are also presented in Table 3. There were significant positive associations between boldness and human agency, $r(70) = 0.394$, $p < .01$, boldness and self-efficacy, $r(70) = 0.356$, $p = .002$, and disinhibition and recognition, $r(70) = 0.263$, $p = .028$. Significant, moderate, negative associations were observed between meanness and recognition, $r(70) = -0.326$, $p = .006$, and meanness and social bonds $r(70) = -0.320$, $p = .007$.

5.2. Hierarchical regression

Table 3 presents the results from the hierarchical regression models predicting each of the CRS subscales. Because none of the psychopathy dimensions were significantly related to the action scale of the CRS in the bivariate analyses, there are only four models presented where the remaining four CRS scales are included as outcomes in each model. Step 1 of Model 1 explained 12% of the variance in recognition; however, this was not significant, $F(5, 58) = 1.6$, $p = .174$. Likewise, none of the variables in step 1 explained unique variance in recognition. After introducing disinhibition, meanness, and boldness in Step 2, the total variance explained by the model increased by 20%, $F(9,60) = 3.2$, $p = .003$. In the second step, only meanness and disinhibition were statistically significant, with disinhibition showing a negative effect on recognition scores ($\beta = -0.36$, $p = .003$) and meanness showing a positive effect on recognition scores ($\beta = 0.40$, $p = .002$).

In the second model predicting social bonds, the variables in Step 1 explained 8% of the variance; however, none of the variables were

Table 2
Correlations between TriPM constructs, change readiness subscales, and demographic variables.

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Boldness	1.00												
2. Meanness	0.05	1.00											
3. Disinhibition	-0.13	0.28*	1.00										
4. Recognition	-0.17	-0.33**	0.26*	1.00									
5. Action	0.11	-0.11	0.20	0.44**	1.00								
6. Social bonds	0.06	-0.32**	-0.05	0.33**	0.63**	1.00							
7. Human agency	0.39**	-0.21	-0.11	0.23	0.68**	0.61**	1.00						
8. Self-efficacy	0.36**	0.03	-0.07	0.02	0.62**	0.49**	0.77**	1.00					
9. Gender	-0.17	-0.25*	0.09	0.27*	0.18	0.21	0.02	-0.07	1.00				
10. Age	0.01	-0.30*	-0.34**	0.02	0.08	0.06	0.22	0.20	0.21	1.00			
11. Education	0.03	-0.12	0.05	0.23	0.21	0.16	0.10	0.06	-0.20	0.21	1.00		
12. Hispanic	-0.07	0.26*	0.28*	-0.11	0.01	0.01	-0.06	0.17	0.03	-0.31*	-0.41**	1.00	
13. Substance use	-0.07	-0.11	0.00	0.20	0.02	-0.12	-0.08	-0.07	-0.08	-0.06	0.09	-0.29	1.00

** $p < .01$.

* $p < .05$.

significant. In the second step, the introduction of the TriPM scales explained 32% of the variance in social bonds, $F(8,55) = 3.27, p = .004$. Specifically, meanness was the only significant predictor ($\beta = -0.33, p < .001$), showing negative effects on social bonds. Neither boldness nor disinhibition was significantly associated with social bonds which is consistent with the bivariate analysis.

In the third model predicting human agency scores, only 6% of the variance in human agency was explained by demographic variables with none of the variables explaining unique variance in human agency. However, once TriPM scales were entered into the model, 26% of the variance in self-efficacy was explained, $F(8,55) = 2.46, p = .002$. Boldness was the only significant predictor of agency ($\beta = 0.44, p = .001$).

In the first step of the fourth model predicting self-efficacy, only being Hispanic was associated with self-efficacy, suggesting that Hispanics are more likely to score high on this aspect of the CRS, relative to non-Hispanics. However, none of the other demographic variables nor substance use showed significant associations. With the introduction of the TriPM constructs, the model explained 26% of the variance in self-efficacy, $F(8,55) = 2.35, p = .03$. Boldness was the only significant predictor of self-efficacy evincing a positive association ($\beta = 0.36, p = .004$).

Table 3
Hierarchical linear regression analysis predicting readiness to change subscales.

	Recognition			Social bonds			Human agency			Self-efficacy		
	B	SE	β	B	SE	β	B	SE	β	B	SE	β
Step 1												
Female	1.73	0.99	0.23	0.97	0.84	0.16	0.72	1.66	0.06	-0.58	1.10	-0.07
Age	0.01	0.04	0.03	0.02	0.04	0.06	0.11	0.08	0.20	0.08	0.05	0.22
Education	0.88	0.80	0.16	0.67	0.68	0.14	0.47	1.34	0.05	0.93	0.89	0.15
Hispanic	0.02	1.11	0.01	0.09	0.94	0.01	-0.05	1.87	-0.01	2.11	1.23	0.25
Substance use	1.38	1.22	0.15	-1.26	1.03	-0.16	-1.29	2.05	-0.08	-1.37	1.35	-0.13
R^2		0.12			0.08			0.06			0.12	
Step 2												
Female	0.78	0.95	0.10	0.48	0.87	0.08	1.03	1.60	0.08	0.04	1.10	0.01
Age	0.01	0.04	0.10	-0.01	0.04	-0.03	0.09	0.07	0.18	0.09	0.05	0.25
Education	0.89	0.73	0.16	0.80	0.67	0.17	0.42	1.23	0.05	0.81	0.85	0.13
Hispanic	-0.24	1.05	-0.03	0.57	0.96	0.09	0.95	1.77	0.08	2.46*	1.22	0.29
Substance use	0.99	1.10	0.11	-1.35	1.01	-0.17	-0.94	1.87	-0.06	-1.05	1.29	-0.10
TriPM boldness	-0.03	0.05	-0.06	0.03	0.05	0.10	0.31**	0.08	0.44	0.18**	0.06	0.36
TriPM meanness	-0.13**	0.05	-0.36	-0.10*	0.04	-0.33	-0.10	0.08	-0.18	0.01	0.05	0.03
TriPM disinhibition	0.13**	0.04	0.40	0.01	0.04	0.01	0.01	0.07	0.01	-0.02	0.05	-0.05
$R^2/\Delta R^2$		0.32**/0.20**			0.17/0.09			0.26*/0.21**			0.26*/0.13*	

Note. TriPM = triarchic psychopathy measure.

* $p < .05$.

** $p < .01$.

6. Discussion

Overall, current study findings indicate significant relationships between psychopathic personality traits and readiness for change indicators. Specifically, we found that individuals who scored higher on the boldness construct of the TriPM demonstrated a higher capacity for change based on the human agency and self-efficacy subscales. Likewise, the disinhibition subscale of the TriPM was positively related to problem/need recognition. Alternatively, the TriPM meanness subscale was negatively associated with problem recognition and social bond subscales, indicating that those who scored higher on the meanness construct scored lower on need recognition and perceived weaker social bonds.

While we did not make a-priori hypotheses regarding the unique associations among the TriPM subscales and the CRS subscales, the observed associations make sense considering the conceptual definitions of the constructs under consideration. For instance, given that meanness features aspects of the psychopathic personality that reflect callousness, cruelty, and uncaringness, it is not surprising that it shows unique negative associations with problem recognition and social bonds. Given that those scoring high on psychopathic traits, particularly meanness, may lack an ability to recognize the negative consequences of their problematic behavior (Jones, Miller, & Lynam,

2011), it is not too surprising that they showed negative associations with recognition of their problems. Likewise, results indicating an inverse relationship between meanness and the social bond construct is consistent with previous research that has found that meanness correlates positively with alienation, lack of trust, and negatively with social closeness (Drislane, Patrick, & Arsal, 2014).

The finding that boldness correlated positively with both human agency and self-efficacy also makes sense given that those whom scored higher on boldness tend to have a strong sense of control over their social interactions and high levels of well-being (Drislane et al., 2014). An interesting finding, however, is that meanness and disinhibition seem to have somewhat divergent associations with recognition. On one hand, this underscores the importance of considering the multi-dimensional nature of psychopathy constructs. On the other hand, the positive association for disinhibition may reflect the anxiety associated with this aspect of psychopathy. That is, research has suggested that anxiety is positively associated with the disinhibition/behavioral aspects of psychopathy once the affective components are considered (see e.g., Frick, Lilienfeld, Ellis, Loney, & Silverthorn, 1999). Thus, the lack of anxiety that is typically characteristic of psychopathy is removed via controlling for the other elements. However, research is needed to directly examine the role of anxiety in the psychopathy-RTC association.

Based on current study findings, assessing psychopathic traits in clinical and forensic settings, including during the reentry process, may have important implications for understanding how to improve treatment responsiveness. The difficulty of engaging individuals who exhibit higher levels of psychopathic personality traits in rehabilitative interventions has been previously established (Harris & Rice, 2006; Salekin, 2002); however, the mechanisms through which psychopathy impacts treatment outcomes is less understood. The current study findings, while largely exploratory, identify some significant associations between psychopathy and CRS constructs that warrant further study. For instance, the positive association between boldness and both agency and self-efficacy is particularly intriguing. While agency and self-efficacy are generally hypothesized to foster treatment engagement and completion, this relationship may be attenuated by the presence of high levels of boldness that lead individuals to believe that they do not need treatment or help from others to successfully overcome problematic behavior. Direct testing of this attenuation hypothesis in data that include treatment engagement and completion outcomes is needed. Data that includes treatment outcomes may also prove beneficial for examining the moderating effects of psychopathy when considering the occurrence of criminological phenomena such as recidivism and desistance. Further, the negative association between meanness and both problem recognition and social bonds has implications for treatment and case management. Offender populations, including persons returning from incarceration, who score high on the meanness domain can be identified as clients who need additional services before beginning rehabilitative treatment. These individuals may require more individual counseling to prepare for treatment and may face additional challenges during the treatment process stemming from difficulties establishing close relationships with others (e.g., treatment providers, community supports, family members).

While these findings have important implications for both research and practice, they should be considered in light of several limitations. First, it should be pointed out that psychopathic traits are defined by the co-occurrence of the different dimensions (i.e. boldness, meanness, and disinhibition) and are best captured by their combination (see e.g., Colins, Fanti, Larsson, & Andershed, 2017). Thus, while our goal was to identify the unique associations between the TriPM scales and the CRS by accounting for their shared variance, future research should examine how the combination of these scales (e.g., disinhibition + boldness) relate to criterion measures. Second, the cross-sectional nature of the data precludes assessment of time order with regard to the associations examined. Additionally, longitudinal data analysis would help to determine if change in RTC is less possible for those with elevated

psychopathic traits. Third, we only examine the associations between psychopathic traits and RTC. Future research should also examine treatment outcomes to determine if elements of RTC act as mediating mechanisms between psychopathic personality traits and such outcomes. Fourth, the size and nature of our sample (e.g., not randomly selected, geographically specific) limits our ability to generalize to the population of offenders reentering the community. Future research would benefit from larger sample sizes consisting of randomly selected individuals with diverse demographics. Additionally, it is somewhat surprising that the only inter-correlation among the TriPM scales to reach significance was observed for meanness and disinhibition. It is possible that significant associations were not detected due to the size of the sample. Thus, conclusions drawn from the current study should be attenuated, and firm conclusions cannot be made regarding these associations until they can be examined among larger, more representative samples. Fifth, it should be noted that the estimates of internal reliability for the recognition and social bonds scales of the RTC were fairly low and may have resulted in attenuated correlations among constructs. While items used to create these scales were based on both theory and prior empirical research, future research is necessary to develop more psychometrically sound measures of readiness for change. Finally, all measures are based on self-reported data which may inflate associations due to shared method variance. Future research could examine these associations using other methods of assessing the constructs (e.g., Psychopathy Checklist-Revised; Hare, 2003).

Despite these limitations, the current study provides an initial exploratory look into the association between psychopathic traits and RTC in the context of offender reentry. These findings, while preliminary, have implications for both research and practice regarding tailoring interventions to offenders who are returning to the community. Given that psychopathic traits have been linked to higher rates of recidivism (Andrews, Bonta, & Wormith, 2006; Hare, 1993; Kiehl & Hoffman, 2011), understanding how we might approach such offenders can be crucial for both public safety and successful reintegration.

Acknowledgement

This project was funded by the University of Texas at San Antonio, Office of the Vice President for Research.

References

- Anderson, N. E., & Kiehl, K. A. (2014). Psychopathy: Developmental perspectives and their implications for treatment. *Restorative Neurology and Neuroscience*, 32(1), 103–117. <https://doi.org/10.3233/RNN-139001>.
- Andrews, D. A., Bonta, J., & Wormith, J. S. (2006). The recent past and near future of risk and/or need assessment. *Crime & Delinquency*, 52(1), 7–27. <https://doi.org/10.1177/0011128705281756>.
- Carey, K. B., Purnine, D. M., Maisto, S. A., & Carey, M. P. (1999). Assessing readiness to change substance abuse: A critical review of instruments. *Clinical Psychology: Science and Practice*, 6(3), 245–266. <https://doi.org/10.1093/clipsy.6.3.245>.
- Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational Research Methods*, 4(1), 62–83. <https://doi.org/10.1177/109442810141004>.
- Colins, O. F., Fanti, K., Larsson, H., & Andershed, H. (2017). Psychopathic traits in early childhood: Further validation of the Child Problematic Traits Inventory. *Assessment*, 24(5), 602–614. <https://doi.org/10.1177/1073191115624544>.
- Cooke, D. J., & Michie, C. (2001). Refining the construct of psychopathy: Towards a hierarchical model. *Psychological Assessment*, 13, 171–188.
- Day, A., Casey, S., Ward, T., Howells, K., & Vess, J. (2014). *Transitions to better lives: Offender readiness and rehabilitation*. London: Routledge, Taylor & Francis Group.
- Dowd, E. T., & Wallbrown, F. (1993). Motivational components of client reactance. *Journal of Counseling and Development*, 71(5), 533–538. <https://doi.org/10.1002/j.1556-6676.1993.tb02237.x>.
- Drislane, L. E., Patrick, C. J., & Arsal, G. (2014). Clarifying the content coverage of differing psychopathy inventories through reference to the Triarchic Psychopathy Measure. *Psychological Assessment*, 2, 350–362.
- Evans, L., & Tully, R. J. (2016). The triarchic psychopathy measure (TriPM): Alternative to the PCL-R? *Aggression and Violent Behavior*, 27, 79–86. <https://doi.org/10.1016/j.avb.2016.03.004>.
- Fishbein, D., Sheppard, M., Hyde, C., Hubal, R., Newlin, D., Serin, R., ... Alesci, S. (2009). Deficits in behavioral inhibition predict treatment engagement in prison inmates. *Law and Human Behavior*, 33(5), 419–435. <https://doi.org/10.1007/s10979-008-9163-7>.

- Frick, P. J., Lilienfeld, S. O., Ellis, M., Loney, B., & Silverthorn, P. (1999). The association between anxiety and psychopathy dimensions in children. *Journal of Abnormal Child Psychology*, 5, 383–392.
- Gaume, J., Mccambridge, J., Bertholet, N., & Daeppen, J. (2016). Mechanisms of action of brief alcohol interventions remain largely unknown: A narrative review. *Frontiers in Psychiatry*, 5. <https://doi.org/10.3389/fpsy.2014.00108>.
- Glenn, A. L., Efferson, L. M., Iyer, R., & Graham, J. (2017). Values, goals, and motivations associated with psychopathy. *Journal of Social and Clinical Psychology*, 36(2), 108–125. <https://doi.org/10.1521/jscp.2017.36.2.108>.
- Hare, R. D. (1993). *Without conscience: The disturbing world of the psychopaths among us*. New York: The Guilford Press.
- Hare, R. D. (2003). *The Hare Psychopathy Checklist—Revised* (2nd ed.). Toronto: Multi-Health Systems.
- Hare, R. D., & Neumann, C. S. (2006). The PCL–R assessment of psychopathy: Development, structural properties, and new directions. In C. Patrick (Ed.), *Handbook of psychopathy* (pp. 58–88). New York: Wiley.
- Harris, G. T., & Rice, M. E. (2006). Treatment of psychopathy: A review of empirical findings. In C. Patrick (Ed.), *The handbook of psychopathy* (pp. 555–572). New York, NY: Guilford.
- Hodge, J. E., & Renwick, S. J. (2002). Motivating mentally disordered offenders. *Motivating offenders to change* (pp. 221–234). <https://doi.org/10.1002/9780470713471.ch13>.
- Holthouser, B., & Bui, N. H. (2015). Meditative interventions and antisocial personality disorder. *Counselling Psychology Quarterly*, 29(3), 235–252. <https://doi.org/10.1080/09515070.2015.1026311>.
- Howells, K., & Day, A. (2007). Readiness for treatment in high risk offenders with personality disorders. *Psychology, Crime & Law*, 13(1), 47–56. <https://doi.org/10.1080/10683160600869767>.
- Jones, S. E., Miller, J. D., & Lynam, D. R. (2011). Personality, antisocial behavior, and aggression: A meta-analytic review. *Journal of Criminal Justice*, 39(4), 329–337. <https://doi.org/10.1016/j.jcrimjus.2011.03.004>.
- Kazemi, D. M., Levine, M. J., Dmochowski, J., Horn, K. R., & Qi, L. (2015). Health behaviors of mandated and voluntary students in a motivational intervention program. *Preventive Medical Reports*, 2, 423–428. <https://doi.org/10.1016/j.pmedr.2015.05.004>.
- Kiehl, K. A., & Hoffman, M. B. (2011). The criminal psychopath: History, neuroscience, treatment, and economics. *Jurimetrics*, 51, 355–397.
- Kimonis, E. R., Kennealy, P. J., & Goulter, N. (2016). Does the self-report Inventory of Callous-Unemotional Traits predict recidivism? *Psychological Assessment*, 28(12), 1616–1624. <https://doi.org/10.1037/pas0000292>.
- Levenson, M. R., Kiehl, K. A., & Fitzpatrick, C. M. (1995). Assessing psychopathic attributes in a noninstitutionalized population. *Journal of Personality and Social Psychology*, 68(1), 151–158. <https://doi.org/10.1037//0022-3514.68.1.151>.
- Lilienfeld, S. O., & Widows, M. R. (2005). *Psychopathic personality inventory-revised: Professional manual*. Lutz, FL: Psychological Assessment Resources Inc.
- Looman, J., Abracen, J., Serin, R., & Marquis, P. (2005). Psychopathy, treatment change, and recidivism in high-risk, high-need sexual offenders. *Journal of Interpersonal Violence*, 20(5), 549–568. <https://doi.org/10.1177/0886260504271583>.
- Ogloff, J. R., Wong, S., & Greenwood, A. (1990). Treating criminal psychopaths in a therapeutic community program. *Behavioral Sciences & the Law*, 8(2), 181–190. <https://doi.org/10.1002/bsl.2370080210>.
- Patrick, C. J. (2010). Unpublished test manual *Operationalizing the Triarchic conceptualization of psychopathy: Preliminary description of brief scales for assessment of boldness, meanness, and disinhibition*. Tallahassee, FL: Florida State University.
- Patrick, C. J., & Drislane, L. E. (2015). Triarchic Model of Psychopathy: Origins, operationalizations, and observed linkages with personality and general psychopathology. *Journal of Personality*, 83(6), 627–643. <https://doi.org/10.1111/jopy.12119>.
- Patrick, C. J., Fowles, D. C., & Krueger, R. F. (2009). Triarchic conceptualization of psychopathy: Developmental origins of disinhibition, boldness, and meanness. *Development and Psychopathology*, 21(03), 913. <https://doi.org/10.1017/s0954579409000492>.
- Polaschek, D. L., & Ross, E. C. (2010). Do early therapeutic alliance, motivation, and stages of change predict therapy change for high-risk, psychopathic violent prisoners? *Criminal Behaviour and Mental Health*, 20(2), 100–111. <https://doi.org/10.1002/cbm.759>.
- Salekin, R. T. (2002). Psychopathy and therapeutic pessimism. *Clinical Psychology Review*, 22(1), 79–112. [https://doi.org/10.1016/s0272-7358\(01\)00083-6](https://doi.org/10.1016/s0272-7358(01)00083-6).
- Simpson, T. P., Frick, P. J., Kahn, R. E., & Evans, L. J. (2013). Therapeutic alliance in justice-involved adolescents undergoing mental health treatment: The role of Callous-Unemotional Traits. *International Journal of Forensic Mental Health*, 12(2), 83–92. <https://doi.org/10.1080/14999013.2013.787559>.
- Skeem, J. L., & Cooke, D. J. (2010). Is criminal behavior a central component of psychopathy? Conceptual directions for resolving the debate. *Psychological Assessment*, 22(2), 433–445. <https://doi.org/10.1037/a0008512>.
- Stanley, J. H., Wygant, D. B., & Seldom, M. (2013). Elaborating of the construct validity of the Triarchic Psychopathy Measure in a criminal offender sample. *Journal of Personality Assessment*, 95, 343–350.