Female Psychopathy and the Personality Assessment Inventory (PAI): A Study with Incarcerated Women

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Abstract

In this study, PCL-R scores were used in correlational analyses with PAI scales in a sample of incarcerated women (N = 133). The total PCL-R score was significantly correlated with many PAI scales including ANT, DRG, and AGG. Categorical analyses were also used where the psychopathic women (N = 71; PCL-R ≥ 30) were significantly higher on the PAI scales of MAN, VPI, PAR, BOR, ANT, AGG, DOM; the non-psychopathic women (N = 28; PCL-R total score ≤ 24) scored higher on the RXR scale. These results further elucidate the conceptualization of female psychopathy (borderline and histrionic personality traits) and were consistent both with clinical observations, theoretical conceptualizations, and previous Rorschach research. Clinical implications were provided for working with incarcerated psychopathic women.

Introduction

Since females are incarcerated at a lower rate than males (USA; 93% males vs. 7% females; Bronson & Carson, 2019), fewer studies of female offenders/psychopaths have been completed (Cunliffe et al., 2016). However, our understanding of female offenders in general and psychopathic women, in particular, is growing and necessary for the management and treatment for women offenders (Carabellese et al., 2019; Cunliffe & Gacono, 2005, 2008; Gacono & Meloy, 1994; Smith, Gacono, Cunliffe, Kivisto, & Taylor, 2014; Smith, Gacono, & Cunliffe, 2018, 2019).

Psychopathic men and women (PCL-R ≥ 30) differ interpersonally, emotionally, and with self-presentation (Smith et al., 2018). The males tend to be cold, detached, present with less emotionally, and present with a narcissistic self-focus (grandiosity). Therefore, the current conceptualization of male psychopathy is an amalgam of a self-centered, grandiose, and narcissistic personality along with an antisocial/criminal lifestyle (Gacono & Meloy, 1994; Klipfel, Garofalo, & Kosson, 2017). In contrast, the females show less arrogance and self-aggrandizement, tend to want interpersonal contact (for admiration/manipulation), present with more emotional lability, present with a pathological self-focus with self-criticism, and in some situations, present with less violence (more limited opportunity than males due to reduced physical dominance; Cunliffe & Gacono, 2005, 2008; Forouzan & Cooke, 2005; Gacono & Meloy, 1994; Smith et al., 2014, 2018). Gender differences suggest modifications on several items (1, 2, 5, 6, & 8) of the Psychopathy Checklist-Revised (PCL-R; Hare, 2003) are needed (Bolt, Hare, Vitale, & Newman, 2004; Cunliffe et al., 2016; Smith et al., 2018).

Psychopathic women (PCL-R ≥ 30) tend to engage in manipulation by using flirtatious, dramatic, and dependent behavior (Cunliffe et al., 2016; Forouzan & Cooke, 2005; Kreis & Cooke, 2011). They have been found to be more prone to engage in affective (a lack of emotional control) rather than predatory violence as evidenced by their higher base rates for violence involving those they are intimately associated with (Cunliffe & Gacono, 2005, 2008; Hicks, Vaidyanathan, & Patrick, 2010; Meloy, 2006; Smith, Gacono, & Cunliffe, in press). Behaviorally, these women also have more criminal convictions, higher numbers of disciplinary infractions and new convictions while incarcerated, more violence, and increased recidivism rates than non-psychopathic women (Loucks, 1995; Salekin, Rogers, Ustad, & Sewell, 1998; Vitale, Smith, Brinkley, & Newman, 2002).

It appears that female psychopathy can be conceptualized on the hysteria spectrum (incorporating histrionic and borderline personality traits). Female psychopathy has been linked to Histrionic and Borderline Personality Disorders while PCL-R Factor 1 and 2 scores have been correlated with BPD in women (Coid, 1993; Conn et al., 2010; Cunliffe & Gacono, 2005, 2008; Hare, 2003; Hicks et al., 2010; Salekin, Rogers, & Sewell, 1997; Sprague, Javdani, Sadeh, Newman, & Verona, 2012; Verona, Sprague, & Javdani, 2012; Warren et al., 2003). The expression of the histrionic personality has been linked to the expression of antisocial behavior and somatization in women (Cale & Lilienfeld, 2002; Cloninger & Gize, 1970; Gacono & Meloy, 1994; Lilienfeld, Van Valkenburg, Larntz, & Akiskal, 1986).

Rorschach research on female psychopathy has been very helpful in gaining a better understanding of their personality style and how it differs from males (Cunliffe & Gacono, 2005, 2008; Gacono & Meloy, 1994; Smith et al., 2014, 2018; Smith, Gacono, Kivisto, & Cunliffe, 2019). In terms of self-perception, these women are likely to perceive themselves as damaged and they present with a poor self-regard and chronic self-criticism. This is unlike psychopathic males that present with self-aggrandizement and grandiosity. Rather than experiencing remorse or guilt, the self-critical, unhappy, and dissatisfied presentation of female psychopathy may be viewed as an insidious negative self-image arising from longstanding frustration over unmet needs for attention and contact with others (shame rather than guilt). Consistent with their hysterical personality style, psychopathic women (PCL-R ≥ 30) are more likely to present with somatic complaints (Cunliffe & Gacono, 2005; Gacono & Meloy, 1994; Smith et al., 2014).

Affectively, psychopathic women have been shown to display dysphoric affect, avoidance of emotionally toned situations, and poor emotional controls (Cunliffe & Gacono, 2005, 2008; Gacono & Meloy, 1994; Smith et al., 2014, 2018). Interpersonally, rather than the cold, remorseless, and callous outward presentation commonly seen in their male counterparts, they present an outward appearance of increased interpersonal interest, connection, and group affiliation (Cunliffe et al., 2016; Smith et al., 2018). Her behavior would be expected to be characterized by an increased need for contact with others rather than the detachment found in male psychopathy (Cunliffe & Gacono, 2008; Cunliffe et al., 2016; Gacono & Meloy, 1994; Hare, 2003; Smith et al., 2014). The unmet needs for attention and admiration may lead to pseudo-dependency on others (i.e., interest is likely to be superficial and immature; Cunliffe & Gacono, 2005, 2008). The psychopathic woman (PCL-R ≥ 30) may be violent in interpersonal situations, tend to minimize the needs of others, have poor boundaries, utilize a victim stance, and have a history of destructive early attachments. Cognitively, she has problems with perceptional accuracy and reality testing (Cunliffe & Gacono, 2008; Smith et al., 2014) consistent with an impressionistic cognitive style (giving more importance to emotions rather

than details and emotion-based coping common among people diagnosed with DSM-5 Histrionic and Borderline Personality Disorders).

In summary, female psychopathy can be conceptualized as having a malignant hysterical style organized at a borderline or psychotic level of personality which includes increased pseudo-dependency, pathological self-focus, dysphoric affect, a suggestible and impressionistic cognitive style, somatic symptoms, poor reality testing, and poor emotional controls (Cale & Lilienfeld, 2002; Cunliffe & Gacono, 2005, 2008; Cunliffe et al., 2016; Forouzan & Cooke, 2005; Gacono & Meloy, 1994; Hare, 2003; Hicks et al., 2010; Kreis & Cooke, 2011; Smith et al., 2014, 2018; Verona et al., 2012).

Psychopathy & PAI

The PAI has been used extensively with forensic male and female populations (Edens, Cruise, & Buffington-Vollum, 2001; Edens & Ruiz, 2005; Morey & Quigley, 2002). Convergent validity has been found between the PCL-R and PAI such that scores measuring Antisocial Features were highly correlated with PCL-R scores, especially for forensic male samples (Boccaccini, Murrie, Rufino, & Gardner, 2014; Douglas, Guy, Edens, Boer, & Hamilton, 2007; Edens, Hart, Johnson, Johnson, & Olver, 2000). Additionally, higher PCL-R scores were positively correlated with the PAI Aggression (AGG), Borderline features (BOR), Drug (DRG), and Antisocial-Stimulus Seeking (ANT-S) scales and negatively associated with Treatment Rejection (RXR) scale (Edens et al., 2000). Further, male offenders scoring high on the ANT, AGG, and Violence Potential Index (VPI) scales committed more institutional infractions (Edens, Buffington-Vollum, Colwell, Johnson, & Johnson, 2002; Reidy, Sorensen, & Davidson, 2016). The ANT and AGG scales have been found to be strongly linked to recidivism (Morey & Quigley, 2002). In mixed samples of males and females, high PCL-R scores[1] were correlated with ANT and AGG scales (Blonigen et al., 2010; Poythress et al., 2010).

Higher total PCL-R scores in females were related to PAI ANT, AGG, BOR, mania (MAN), and dominance (DOM) scales, and negatively related to the warmth (WRM) scale (Conn et al., 2010; Edens et al., 2000; Kane, 2004; Kendall, 2006; Kimonis et al., 2010; Salekin et al., 1997, 1998; Smith et al., 2019). The PAI, ANT, and AGG scales were also related to recidivism (Salekin et al., 1998). Female offenders had more problems with negative relationships (BOR-N) than male offenders (Conn et al., 2010) and female inmates scoring higher on the AGG, VPI, ANT, and Paranoia (PAR) scales had more violent and non-violent incident reports (Davidson, Sorensen, & Reidy, 2016). Female inmates had higher scores on the PAI Drug (DRG) and Anxiety-Related Disorders-Traumatic Stress (ARD-T) than male inmates as well (Davidson et al., 2016)[2].

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[1] High scorers are not necessarily equal to a categorical psychopathic group (PCL-R total score $\geq$ 30). Many PAI/PCL-R studies have not provided ranges for the PCL-R scores; therefore, it is unclear if there are any participants in the high range (PCL-R $\geq$ 30) in the sample (i.e., was there enough variation in the sample). We encourage researchers that use the dimensional approach (correlational analyses) to provide PCL-R ranges to determine what high scorers means in terms of the PCL-R. When looking at the psychopathy construct dimensionally studies have found those scoring 30 or more on the PCL-R are different than those scoring lower on the PCL-R (Neumann, Vitacco, & Mokros, 2016). Adding categorical analyses looking at different groups of participants based on PCL-R score (i.e., $\geq$ 30) is recommended.

[2] While the trends in these findings are consistent with theory, only the Salekin et al. (1997, 1998) specifically provided ranges for PCL-R total score (i.e., PCL-R $\geq$ 30).

Current Study

This study attempts to add to our conceptualization of female psychopathy using the PCL-R and PAI. Included in the sample, which was absent from the above studies, is a group comparison between 71 psychopathic women (PCL-R $\geq$ 30) and 28 non-psychopathic women (PCL-R $\leq$ 24; $N = 28$).

    1.   The PCL-R (total, Factor, and facet) scores and PAI scales will be used in correlational analyses with a sample of incarcerated women ($N = 133$). PCL-R total score (TS) will be correlated with SOM, ANT, BOR, PAR, MAN scales and the corresponding subscales. Further, SCZ-T, AGG, DOM, VPI, ALC, DRG, and RXR scales will be correlated with PCL-R total score. Further, PCL-R Factor and facet scores will also be used in the correlational analyses.

    2.   The female psychopathic group (PCL-R $\geq$ 30; $N = 71$) will be compared to the non-psychopathic female group (PCL-R $\leq$ 24; $N = 28$) on the following PAI scales: SOM, ANT, BOR, PAR, MAN, SCZ-T, AGG, DOM, VPI, ALC, DRG, RXR, WRM, and ARD-T.

Method

Participants. Archival data were used for this study (1998-2014). All protocols (224 female offenders) were part of separate institutional and research ethics board approved research projects conducted by Doctoral Level Psychologists at various prisons in the United States. The inmate security levels were camp to high. Incident offenses for the population were: 47% (107) were drug related, 13% had a fraud crime (29), 20% had a theft crime (45), 23% (51) had a violent crime, 13% had a sex offense (29), and 30% (66) had another type of crime. When the women had more than one incident offense, each offense was counted in the tally. The participants did not receive any monetary incentives and participation did not affect their sentence or institutional adjustment. On average, the sample was white, with low average IQ, and in their mid-thirties (see Table 1).

Table 1

Demographic Information for Incarcerated Women

	Total Sample (*N* = 133)			Psychopathic Females (*N* = 71)			Non-psychopathic Females (*N* = 28*)*		
	M	SD	Range	M	SD	Range	M	SD	Range
Age	36.50	9.60	21-59	36.24	9.59	22-58	38.11	10.72	21-59
IQ	90.56	12.95	34-126	92.31	11.46	57-126	89.88	10.48	64-106
	Freq			Freq			Freq		
Ethnicities									
White	81 (60.9%)			43 (60.6%)			17 (60.7%)		
Black	40 (30.1%)			24 (33.8%)			8 (28.6%)		
Hispanic	9 (6.8%)			4 (5.6%)			3 (10.7%)		
Native American	2 (1.5%)			-			-		
Asian	1 (0.8%)			-			-		

Note. M = mean; SD = standard deviation; Freq = frequency.

Measures. The Shipley Institute of Living Scale (SILS; Shipley & Zachary, 1986) or the Shipley-2 (Shipley, Gruber, Martin, & Klein, 2009), PCL-R, and PAI (Morey, 1991) were administered in accordance with the procedures outlined in the test manuals. PCL-R interviews and ratings, SILS/Shipley-2 and the PAI were completed by Doctoral Level Psychologists (Ph.D. or Psy.D.) with extensive training in the scoring, administration, and interpretation of these measures.

The Personality Assessment Inventory (PAI; Morey, 1991) is a 344-item self-report measure of personality and psychopathology. It contains 22 non-overlapping full scales, including 4 validity, 11 clinical, 5 treatment consideration, and 2 interpersonal scales, as well as 30 subscales. The PAI was standardized on adult samples from the community (*N* = 1,000) and in mental health treatment (*N* = 1,265). When examining the validity of a protocol, participants were retained for analyses only if they obtained an Infrequency (INF) score below 75T, an Inconsistency (ICN) score below 73T, and a Negative Impression Management (NIM) score below 77T (as outlined in Morey, 1991).

The Shipley measures crystallized intelligence with the Vocabulary scale and fluid intelligence with either the Abstraction or Block Pattern scale. The Shipley has been shown to correlate with the WAIS-R Full Scale IQ between .85 and .87 (Shipley & Zachary, 1986).

The PCL-R (Hare, 2003) was used to measure psychopathy. This measure contains 20 items and is administered via a file review and a semi-structured interview (e.g. Gacono, 2005). Prior to the interview, an in-depth file review is needed in which medical, legal, psychiatric, and pertinent institutional files were reviewed. During the interview the personality characteristics and antisocial behaviors are evaluated on a three-point ordinal scale with a total score range of 0

to 40. Gacono's (2005) *Clinical and Forensic Interview Schedule* (CFIS) was used to organize record and interview information. File reviews and interviews were completed for each participant. The inter-rater reliability estimates (Spearman Rho) were .98 for total PCL-R score, .93 for Factor 1, .92 for Factor 2, and $\geq$ .87 for facets and PCL-R items.

Procedure. Exclusion criteria were a lack of fluency in the English language and an elevated NIM, INF, and/or INC score, leaving a sample of 133. The females were also differentiated by their PCL-R total scores resulting in 71 psychopathic women (PCL-R total score $\geq$ 30) and 28 non-psychopathic women (total PCL-R scores $\leq$ 24) left for comparison. Since women scoring in the moderate range of psychopathy comprise a mixed group (some psychopathic women, some non-psychopathic women due to standard error of measurement concerns), scores in this range were excluded from the analysis (PCL-R > 24 but < 30) to highlight intergroup differences. While optimal PCL-R cutoff scores may vary in clinical usage, a PCL-R total score $\geq$ 30 is recommended for all research that categorically purports to compare psychopaths and non-psychopaths[3]. (Cunliffe et al., 2016; Gacono, 2016; Gacono & Gacono, 2006; Hare, 2003; Neumann et al., 2016; Smith et al., 2018)

Data Analysis. The Statistical Package for Social Sciences (SPSS) version 22 was used for all calculations. For the PAI (T scores) and PCL-R, the data were analyzed for means, standard deviations, and ranges. Age, IQ, PCL-R scores, and PAI scales comparisons were analyzed with *t*-tests. Pearson *r* was used for the correlational analyses between the PCL-R scores and the PAI scales. Multiple linear regressions were also used for the PCL-R scores and PAI scales.

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[3] It ensures that there are psychopaths in the study, thereby strengthening the theoretical implication of the findings and increasing the generalizability of the conclusions to other studies. Though other studies have lowered the PCL-R total score for female psychopathy (e.g. 25; Carabellese et al., 2019; Hicks et al., 2010), other studies have not had to lower cut scores (Cunliffe & Gacono, 2005; Smith, Gacono, & Cunliffe, 2018). Therefore, it may not be optimal to lower PCL-R scores for studies with women.

Results

Table 2

PCL-R Scores for the Incarcerated Women

	Total Sample (*N* = 133)			Psychopathic Females (*N* = 71)			Non-psychopathic Females (*N* = 28)		
	M	SD	Range	M	SD	Range	M	SD	Range
PCL-R TS	29.06	5.72	12.60-38.90	33.45	2.36	30-38.9	20.43	3.01	12.6-24
PCL-R Factor 1	11.41	2.97	1-16	13.31	1.77	9.1-16	8.13	2.76	1-16
PCL-R Factor 2	14.72	3.48	5.60-20	16.74	2.08	11.30-20	10.29	2.87	5.6-13.80
PCL-R Facet 1	5.94	1.58	2-8	6.92	0.90	5-8	4.38	1.40	2-8
PCL-R Facet 2	5.45	1.62	1-8	6.30	1.13	4-8	3.89	1.59	1-8
PCL-R Facet 3	7.93	1.65	3.70-10	8.74	1.27	5-10	6.17	1.43	3.7-9
PCL-R Facet 4	6.71	2.56	0-10	8.11	1.68	3.70-10	3.34	1.80	0-6

Note. M = mean; SD = standard deviation; Freq = frequency; PCL-R = Psychopathy Checklist-Revised; TS = total score.

Table 3

Correlational Analyses with PCL-R Total score and PAI scores (N = 133)

	PCL-R TS
SOM	0.109
MAN	0.232**
PAR	0.138
BOR	0.253**
ANT	0.445**
AGG	0.388**
DRG	0.308**
ALC	0.200*
DOM	0.259**
WRM	-0.119
RXR	-0.189*
SOM-C	0.194*
SOM-S	0.002
SOM-H	0.070
MAN-A	0.132
MAN-I	0.284**
MAN-G	0.128
PAR-H	0.141
PAR-P	0.238**
PAR-R	0.042
SCZ-T	0.262**
BOR-A	0.267**
BOR-I	0.159
BOR-N	0.133
BOR-S	0.339**
ANT-A	0.333**
ANT-E	0.347**
ANT-S	0.369**
AGG-A	0.389**
AGG-P	0.356**
AGG-V	0.296**
VPI	0.352**

Note. * = significant at $p \leq .05$; ** = significant at $p \leq .01$; PCL-R = Psychopathy Checklist-Revised; TS = total score; SOM = somatic complaints; MAN = mania; PAR = paranoia; SCZ = schizophrenia; BOR = borderline features; ANT = antisocial features; ALC = alcohol problems; DRG = drug problems; AGG = aggression; RXR = treatment rejection; DOM = dominance; WRM = warmth; SOM-C = conversion; SOM-S = somatization; SOM-H = health concerns; MAN-A = activity level; MAN-I = irritability; MAN-G = grandiosity; PAR-H = hypervigilance; PAR-P = persecution; PAR-R = resentment; SCZ-T = thought disorder; BOR-A = affective instability; BOR-I = identity problems; BOR-N = negative relationships; BOR-S = self-harm; ANT-A = antisocial behaviors; ANT-E – egocentricity; ANT-S = stimulus seeking; AGG-A = aggressive attitude; AGG-V = verbal aggression; AGG-P = physical aggression; VPI = violence potential index.

Table 4

PAI Comparisons between the Psychopathic and Non-psychopathic Females

	Psychopathic females (PCL-R ≥ 30; *N* = 71)		Non-psychopathic females (PCL-R ≤ 24; *N* = 28)				
	M	*SD*	*M*	*SD*	Statistic	*p*	*es*
PAI Scale							
SOM	63.07	13.24	62.04	10.73	0.37	0.713	0.09
MAN	59.20	12.08	50.71	10.94	3.23	0.002*	0.74
PAR	72.18	12.04	66.07	10.33	2.36	0.020*	0.54
BOR	77.45	12.07	69.61	11.35	2.96	0.004*	0.67
ANT	71.82	12.14	56.86	10.83	5.69	<0.001*	1.30
AGG	68.38	14.95	54.36	13.77	4.30	<0.001*	0.98
DRG	87.44	18.06	70.64	20.58	4.00	<0.001*	0.87
ALC	66.80	19.52	56.79	12.83	2.51	0.014*	0.61
DOM	54.32	12.26	45.54	15.53	2.97	0.004*	0.63
WRM	39.56	12.86	42.89	10.97	-1.21	0.230	0.28
RXR	32.35	7.28	36.46	10.55	-2.215	0.029*	0.45
ARD-T	80.83	13.83	77.75	14.52	0.984	0.327	0.22
SCZ-T	71.08	14.74	63.79	13.18	2.28	0.025*	0.52
BOR-A	69.66	11.77	62.11	12.18	2.85	0.005*	0.63
BOR-I	70.71	10.38	65.14	10.54	2.39	0.019*	0.53
BOR-N	75.06	9.70	70.29	9.85	2.19	0.031*	0.49
BOR-S	72.87	15.83	60.82	13.23	3.56	0.001*	0.83
ANT-A	74.49	9.76	62.57	10.08	5.42	<0.001*	1.20
ANT-E	59.39	12.08	48.18	8.95	4.45	<0.001*	1.05
ANT-S	66.96	14.50	53.61	12.85	4.25	<0.001*	0.97
AGG-A	65.73	11.88	54.36	12.85	4.13	<0.001*	0.92
AGG-P	72.35	17.42	56.76	12.85	4.29	<0.001*	1.02
AGG-V	58.97	12.99	50.14	11.52	3.14	0.002*	0.72
VPI	86.69	19.00	66.43	17.56	4.88	<0.001*	1.11

Note. * = statistically significant; M = mean; SD = standard deviation; statistic = *t*; es = Cohen's d; SOM = somatic complaints; ARD = anxiety-related disorders; MAN = mania; PAR = paranoia; SCZ = schizophrenia; BOR = borderline features; ANT = antisocial features; ALC = alcohol problems; DRG = drug problems; AGG = aggression; RXR = treatment rejection; DOM = dominance; WRM = warmth; ARD-T = traumatic stress; PAR-H = hypervigilance; PAR-P = persecution; SCZ-T = thought disorder; BOR-A = affective instability; BOR-I = identity problems; BOR-N = negative relationships; BOR-S = self-harm; ANT-A = antisocial behaviors; ANT-E – egocentricity; ANT-S = stimulus seeking; AGG-A = aggressive attitude; AGG-V = verbal aggression; AGG-P = physical aggression; VPI = violence potential index.

There were no significant differences for age (t [97] = -0.844, p = 0.401) or IQ (t [97] = 0.944, p = 0.348). As expected, when separating the women into two groups (PCL-R ≥ 30 & PCL-R ≤ 24), PCL-R T-Scores and all PCL-R Factor and facets scores were significantly different (p < 0.001; see Table 2). Significant positive correlations were found with high PCL-R total score and the following PAI scales: MAN, BOR, ANT, AGG, DRG, ALC, DOM, SOM-C, MAN-I, PAR-P, SCZ-T, BOR-A, BOR-S, ANT-A, ANT-E, ANT-S, AGG-A, AGG-P, AGG-V, and VPI (see Table 3 for correlational analyses). Total PCL-R score was negatively correlated with RXR. Due to many scales being used in the correlations, a multiple linear regression was used for PCL-R total score and PAI scales. The only three PAI scales to be significant in the regression were ANT, DRG, and AGG.

The psychopathic group (PCL-R ≥ 30) produced significantly higher scores than the non-psychopathic group (PCL-R ≤ 24) on the following PAI scales: MAN, PAR, BOR, ANT, AGG, DRG, ALC, DOM, SCZ-T, BOR-A, BOR-I, BOR-N, BOR-S, ANT-A, ANT-E, ANT-S, AGG-A, AGG-P, AGG-V, and VPI (see Table 4). The non-psychopathic group had higher scores on the RXR scale than the psychopathic females. No significant differences were seen between the two groups on the ARD-T, SOM, and WRM scales.

Discussion

The PAI has been used extensively with forensic populations (Morey & Quigley, 2002; Edens & Ruiz, 2005). The significant correlations with the PAI scales and the PCL-R total scores add to the PCL-R validity such that it appears that the antisocial behavior, drug use, and aggression were being measured (in contrast to research suggesting antisociality is not part of the psychopathic presentation; Verschuere et al., 2018). Elevations on these scales may suggest to the clinician that a more thorough assessment of psychopathy is needed (Douglas et al., 2007). However, we do not subscribe to the notion that self-report questionnaires can be used to diagnose psychopathy due to dissimulation with a population known for pathological lying (Douglas et al., 2007; Gacono & Meloy, 1994).

Though not the focus of this study, the PAI and PCL-R Factor and facet scores were similar to previous findings regarding what the factor/facet has been purported to measure (i.e., Factor 2 [facet 3/4; Lifestyle/antisocial] correlated with ANT, AGG, DRG, ALC, DOM[4]; Klipfel et al., 2017). Specifically, PAI scales focusing on antisocial features were significantly correlated with facet 1 (interpersonal), 3 (lifestyle), and 4 (antisocial behavior) while the borderline features scale was significantly correlated with facet 3. No significant correlations were seen for the paranoid scale on any on the facets. Similar to Klipfel et al. (2017), none of the main PAI scales with personality disorder features (BOR/ANT) were significantly correlated with facet 2 (affective). The PAI subscales produced similar findings as the main PAI scales (ANT/BOR), except ANT-E (Egocentricity) was correlated with all four facet scores suggesting egocentricity in incarcerated women may have an additional affective component. Further, the BOR-S (self-harm) scale was correlated with facet 4 (antisocial behavior) suggesting the self-harm with these women may be linked to antisocial behavior (Blanchette & Brown, 2006).

Previous studies with male and female offenders using the PCL-R have found significant correlations with PAI scales of DOM, AGG, ANT, VPI, ALC, and DRG as well as a negative correlation with the RXR scale (Boccaccini et al., 2014; Conn et al., 2010; Davidson et al., 2015;

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[4] See the online supplemental tables: https://mfr.osf.io/render?url=https%3A%2F%2Fosf.io%2Fz7xpc%2Fdownload

Edens et al., 2000, 2002; Kendall, 2006; Kimonis et al., 2010; Reidy et al., 2016; Salekin et al., 1997, 1998). Higher PCL-R scores for women have been significantly correlated with the BOR scale (Conn et al., 2010; Kendall, 2006; Salekin et al., 1997). Our results found that psychopathic females (PCL-R ≥ 30) expressed more problems with aggression (AGG and its subscales), acknowledged more antisocial behaviors (ANT & ANT-A), exhibited a dominant interpersonal style (DOM) with an increased potential for violence (VPI), and have problems with drugs and alcohol (DRG, ALC). Therefore, clinicians are likely to encounter an incarcerated psychopathic woman that has difficulty with substances, has a tendency to exhibit rule breaking behavior (many disciplinary reports), may tend to cause problems for the other inmates, and is likely to engage in verbal and/or physical altercations (Loucks, 1995).

Convergence between PAI Findings and Rorschach Data. Recently, research has been conducted that has shown convergence with Rorschach data and PAI findings (Morey & McCredie, 2019; Smith et al., 2019). Our findings have been consistent with previous independent findings with the Rorschach and the PCL-R with incarcerated psychopathic women (Cunliffe & Gacono, 2005; Smith et al., 2014, 2018; Smith, Gacono, & Cunliffe, 2019). Specifically, the result of somatic concerns on the PAI (SOM-C) is similar to finding body concerns on the Rorschach (An + Xy) with psychopathic women (Smith et al., 2014). Difficulty controlling emotions and explosive emotionality on the PAI (BOR, BOR-A) was found with these women similar to more CF + C responses on the Rorschach (Cunliffe & Gacono, 2005; Smith et al., 2018). Scores on the PAI measuring aggression (AGG and its subscales) as well as violence potential (VPI) have been related to aggressive Rorschach scores such as AgC, AgPast, and AgPot (Smith et al., in press). Further, they tend to present with idiosyncratic thinking on the Rorschach (X-% and X+%) which was consistent for them on the PAI (SCZ-T; Smith et al., 2018). Higher scores on the PAI ANT-E scale suggested egocentricity and psychopathic women on the Rorschach tend to elevate the egocentricity index (EGOI; Smith, Gacono, & Cunliffe, 2019). Though we are not saying that the Rorschach findings correlates through the PAI, we are stating separate studies with incarcerated women examining PCL-R items/scores and the Rorschach have presented similar findings to these current PAI results (Smith, Gacono, & Cunliffe, 2019).

Categorical vs. Dimensional Views of Female Psychopathy. The PAI findings give more credibility to the conceptualization of female psychopathy displaying a hysterical style in comparison to the male narcissistic style[5] (Cunliffe & Gacono, 2005, 2008; Gacono & Meloy, 1994; Smith et al., 2018). This presentation would incorporate histrionic traits and borderline personality organization (Cunliffe & Gacono, 2005, 2008; Sprague et al., 2012; Verona et al., 2012). Specifically, psychopathic women had significantly higher scores on the BOR scale and its subscales than would be expected if based on borderline traits alone. Specifically, these scales suggested that these women have poor emotional control, self-destructive or self-defeating behavior, feelings of emptiness, ambivalent and intense relationships, attachment relationships that would be considered volatile, and impulsive behavior. These would be in line with clinical impressions based on our extensive experience working with and evaluating the psychopathy construct in women, previous Rorschach data, and the definitions of the PCL-R items (Cunliffe et al., 2016; Gacono & Meloy, 1994; Smith et al., 2018; Smith, Gacono, & Cunliffe, 2019).

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[5] This study was unique in that in looked at female psychopathy from a categorical and dimensional approach using the PCL-R and the PAI. Further, it had a large number of psychopathic women (PCL-R ≥ 30; $N = 71$).

Previous research has demonstrated female psychopathy (PCL-R ≥ 30) has the following characteristics: increased pseudo-dependency, pathological self-focus, dysphoric affect, a suggestible and impressionistic cognitive style, somatic symptoms, poor reality testing, and poor emotional controls, which were confirmed with the current PAI results (Cunliffe & Gacono, 2005, 2008; Cunliffe et al., 2016; Forouzan & Cooke, 2005; Gacono & Meloy, 1994; Hare, 2003; Hicks et al., 2010; Kreis & Cooke, 2011; Smith et al., 2014, 2018; Verona et al., 2012).

Cognitively, these women have problems with disorganized thoughts, concentration, and decision making; however, these are not related to psychosis. The unusual perceptions and thoughts normally are seen in irrational and/or criminal thinking (i.e., victim stance; see Gacono & Meloy 1994). Their cognitions were plagued with irrational beliefs that they are being treated unfairly and others are out to undermine them (i.e., society, the judge/police, correctional workers/officers, psychologists; Morey, 1991). Interpersonally, they (PCL-R ≥ 30) produced high scores on the scales measuring egocentricity with a lack of empathy/remorse, a need for stimulation, a low tolerance for boredom, and risk-taking behavior. Further, they are apt to exploit relationships and can be cold and rejecting in relationships. The female, unlike the male who tends to have detached relationships, will attempt to maintain the relationship to satisfy her need for attention/admiration. Strained relationships occur when others do not keep up with their plans, demands, and ideas and give them the attention they desire. They can be impatient, easily frustrated, and demanding in relationships.

The link between hysteria and somatization dates to Freud. However, recently there have been links to somatization in antisocial and histrionic personalities (Cale & Lilienfeld, 2002; Gacono & Meloy, 1994; Lilienfeld et al., 1986; Smith et al., 2014). High PCL-R scores and the PAI SOM-C scale were significantly correlated. This suggested that females scoring higher on the PCL-R would display more dramatic physiological symptoms suggesting superficiality (Shallow Affect on the PCL-R and a criterion of HPD). They tend to display poor judgment and insight, which could make them misconstrue physiological symptoms. This helps strengthen the validity of the conceptualization of female psychopathy as having a malignant hysterical style.

The psychopathic women produced low scores on the treatment rejection scale (RXR) suggesting a cry for help rather than pushing away treatment. Rather than a desire to change, it may relate to the need for attention/admiration and acceptance/impression management as these are something they crave in interpersonal relationships. There was no significant difference between the two groups on the ARD-T scale consistent with high rates of traumatic experiences among incarcerated women (Green et al., 2016). Therefore, regardless of psychopathy level, self-reported trauma appears to be prevalent among this population.

Clinical Implications. When using self-report measures, it is important to remember that the measure is assessing what the individual is telling you. This is especially important in forensic populations where manipulation, lying, and impression management are high (Cunliffe et al., 2016; Douglas et al., 2007; Gacono, 2016; Gacono & Meloy, 1994; Kosson, Gacono, Klipfel, & Bodholdt, 2016). This may be evident with the elevations on the traumatic stress scale (ARD-T). Though they are expressing problems related to trauma this may not be the case when other records, measures, and mental status/behavioral observations are considered. Though both groups express traumatic stress, the validity may not be known unless examining other data points. This makes the PAI validity scales important as well. Though not specifically assessed, the psychopathic and non-psychopathic females did not differ on inconsistency, infrequency, or providing a negative impression. However, the non-psychopathic group were more likely to

present a positive impression while the psychopathic group tended to elevate the malingering scale. This information fits into the theoretical notions and with the data. The psychopathic woman may be exaggerating their symptoms in a way that necessities more attention in the form of treatment and less likely to present with positive impression management. These would be related to the treatment rejection scale (RXR). The increased score would suggest that they need more help; however, like their Rorschach spoiled T and COP responses, it is likely not a genuine desire but rather related to a pseudo-dependency. In this manner the PAI data should be interpreted much like our Rorschach data—where the meaning of the variable is modified related to the actual personality and behavioral history of the individual (e.g. an FD does not usually represent healthy psychological mindedness when presented in an otherwise pathological Rorschach record).

When working with psychopathic women in correctional settings it is important to understand that they are different from men. Unlike psychopathic men (PCL-R $\geq$ 30), females tend not to be cold, detached, and narcissistic, but rather, they express a very high need for attention and approval (Cunliffe et al., 2016; Forouzan & Cooke, 2005). Though they can be cold and dominant in relationships when not getting what they desire, how they are perceived by others is important in the clinical relationship. An interesting finding with these females was the low score on RXR. Though male offenders (not necessarily psychopathic) can produce a low RXR score (Edens et al., 2000), the nature behind the score would be different for males and females. For males, it may be a manipulation tactic to take advantage of a treatment setting. For the female, this expression of needing treatment may be a ploy to gain the attention desired rather than a desire for change or alternatively, is likely strongly linked to their need for attention and sympathy.

These PAI differences are consistent with previous suggestions for modifying PCL-R items for use with women the present with less grandiosity/glibness, express callousness and a lack of empathy differently, and have shown differences in early behavioral problems compared to men (1, 2, 5, 6, 8, & 12; Cunliffe et al., 2016; Smith et al., 2018; Smith, Gacono, & Cunliffe, 2019). The justification for modifying the items stems from the concerns related to the assessment of psychopathy with women such that the criteria were developed with males, the differences in behavioral expression based on gender, and that PCL-R items have functioned differently based on gender (Bolt et al., 2004; Cunliffe et al., 2016; Forouzan & Cooke, 2005).

The clinician is cautioned to be very wary of motivations of psychopathic women expressing certain issues on self-report measures. It is essential to carefully check all her claims against available records and clinical observations due to pathological lying as they can present themselves as a helpless victim in need of protection. In this regard, clinicians are advised to pay close attention to counter-transferential thoughts and feelings (Gacono, 2016; Kosson et al., 2016).

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