

Relationship between psychopathy, personality and human values in a prison sample

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Abstract

Our aim was to understand to what extent the characteristics of psychopathy are correlated with personality traits and human values in a sample of imprisoned inmates. To this end, a total of 56 prisoners were evaluated, predominantly female (80.4%) with a mean age of 33.44 (SD = 7.15). The following instruments were employed: (1) Hare scale, (2) Human Values Questionnaire (BVQ), (3) Big Five Personality Traits Inventory (BFI-S) and (4) Demographic Questionnaire. Descriptive statistics and Spearman's rank correlation coefficient were applied. The results indicated a positive correlation between a socially deviant/antisocial lifestyle (Factor 2) and the dimensions of neuroticism ($r_s = 0.44; p < 0.001$), openness to experience in the BFI-S ($r_s = 0.26; p < 0.05$) and experimentation in the BVQ ($r_s = 0.36; p < 0.001$). It was concluded that the present study contributes to an understanding of personality traits and values related to psychopathy, expanding the nomological network of this construct. *Keywords:* forensic evaluation; risk assessment; criminal recidivism; prison system; the Hare Psychopathy Scale

Relação entre Psicopatia, Personalidade e Valores Humanos em uma Amostra Carcerária

Resumo

Objetivou-se conhecer em que medida o traço de psicopatia correlaciona-se com os traços de personalidade e os valores humanos em uma amostra carcerária. Para tanto, avaliou-se 56 detentos, a maioria mulheres (80,4%), com média de idade de 33,44 (DP = 7,15). Foram utilizados os seguintes instrumentos: (1) Escala Hare, (2) Questionário de Valores Humanos (QVB), (3) Inventário dos Cinco Grandes Fatores de Personalidade (IGFP - 5) e (4) Questionário Demográfico. Foram aplicadas estatísticas descritivas e correlação *rbo* de Spearman. Os resultados indicaram uma relação positiva entre o estilo de vida socialmente desviante/antissocial (Fator 2) e as dimensões de neuroticismo ($r_s = 0,44; p < 0,001$), abertura a mudança do IGFP-5 ($r_s = 0,26; p < 0,05$) e experimentação do QVB ($r_s = 0,36; p < 0,001$). Conclui-se que o presente estudo contribui para o conhecimento dos traços de personalidade e valores relacionados a psicopatia, ampliando a rede nomológica deste construto.

Palavras-chave: avaliação forense; avaliação de risco; reincidência criminal; sistema prisional; Escala Hare de Psicopatia

Relación entre psicopatía, personalidad y valores humanos en una muestra carcelaria

Resumen

El objetivo de la presente investigación fue conocer en qué medida el rasgo de la psicopatía se correlaciona con los rasgos de personalidad y valores humanos en una muestra penitenciaria. Para ello, fueron evaluados 56 detenidos, en su mayoría mujeres (80,4%), con una media de edad de 33,44 años (DS = 7,15). Se utilizaron los siguientes instrumentos: (1) Escala Hare, (2) Cuestionario de valores humanos (QVB), (3) Inventario de los Cinco Grandes Factores de Personalidad (IGFP-5) y (4) Cuestionario demográfico. Se aplicaron estadísticas descriptivas y la correlación *rbo* de Spearman. Los resultados indicaron una relación positiva entre conducta socialmente desviada/antisocial (Factor 2) y las dimensiones de neuroticismo ($r_s = 0,44; p < 0,001$), apertura al cambio en el IGFP-5 ($r_s = 0,26; p < 0,05$) y experimentación de QVB ($r_s = 0,36; p < 0,001$). Se concluye que el presente estudio contribuye al conocimiento de los rasgos y valores de personalidad relacionados con la psicopatía, ampliando la red nomológica de este constructo.

Palabras clave: evaluación forense; evaluación de riesgos; reincidencia delictiva; sistema penitenciario; escala de evaluación de la psicopatía de Hare

Although the Brazilian prison system has the capacity for 442,349 prisoners, the number of incarcerated individuals had risen to 748,009 by 2020, a

shortfall of 305.660, according to the statistical information report issued by the penitentiary system. In this regard, the backlog in Brazil's judiciary system has

resulted in a total of 222,558 individuals in a state of temporary imprisonment, which is largely responsible for the overcrowding in the prison system [National Prison Information Survey – INFOPEN] (Ministry of Justice, 2020). Moreover, in the international league table produced by the World Prison Brief (Walmsley, 2020), Brazil is ranked third in terms of the global prison population, trailing only the USA and China, in first and second place, respectively.

Despite this, in Brazil, very few studies have been conducted to identify and evaluate risk factors in the prison population (Armani & Cruz-Silva, 2010; Esteves et al., 2018; Vargas et al., 2015). In this context, it may be assumed that psychopathy is the most important clinical construct for the criminal justice system, mainly on account of the relationship to violent crime and the high rates of criminal recidivism (Ambiel, 2006; Hare, 1998).

In addition to the characteristics of psychopathy, several personality traits have also been highlighted as risk factors. In this regard, the characteristics of psychopathy have been associated with comprehensive, dimensional models of personality, one of the most commonly used being the Big Five-Factor model (FFM) (Hauck Filho et al., 2009; Jackson & Richards, 2007). As identified by Hauck Filho et al. (2009), the studies indicate that the characteristics of psychopathy are positively correlated with the factors of extraversion and openness to experience, and negatively correlated with the traits of conscientiousness and socialization. Correlations have also been observed for psychopathy and neuroticism (Miller & Lynam, 2015; Esteves et al., 2018), although there is some divergence of opinion with regard to the different facets of this factor (Lynam & Widiger, 2007).

However, aside from personality, other constructs may be taken into consideration when characterizing the risk factors of inmates, such as human values on account of the implications for lifestyle, social interaction and the consequences of these interactions. According to the functionalist theory of human values, (personal and social) values may be defined as guideline criteria that steer human actions and cognitively express their basic needs (Gouveia, 2013; Gouveia et al., 2014).

In a study conducted by Monteiro (2014), the stated objective was to determine the mediating role of human values in the relationship between personality traits and psychopathy, based on a sample of 228 university students with a mean age of 25.1 years (SD = 7.51), from both public and private institutions in João Pessoa, the capital city of the Brazilian state

of Paraíba. Specifically, the results indicated that specific personality traits (i.e., low agreeableness and high extraversion) and (personal and social) values were good predictors of the phenotypes of psychopathy, confirming the mediating role of values in the relationship between personality and psychopathy. It should be stressed that the study in question was conducted with a sample of university students, so it would be necessary to extend this to other types of population.

Accordingly, the aim of the present study was to understand to what extent the characteristics of psychopathy are correlated with the traits of personality and human values in a prison population. Accordingly, the upcoming topics will deal with the constructs selected in this study, to evaluate convicted offenders and the composition thereof as a risk factor.

Psychopathy

Embracing a full array of personality traits, psychopathy includes interpersonal aspects such as a sense of grandiosity and loquacity, low levels of empathy, shallow affect, impulsivity and a propensity towards antisocial behavior (Book et al., 2015; Hare, 2013). Characteristically, individuals with a high level of psychopathy appear to be charming on the surface with elevated self-esteem, they can be manipulative, pathological liars with an absence of remorse, insensitive and have a reduced capacity to accept responsibility for their own actions, problems with early-life behavior and antisocial conduct in adult life (Hare, 2013; Hüss, 2011).

In contrast to Antisocial Personality Disorder (ASPD), which appears in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) as a set of criminal and socially deviant behaviors (American Psychological Association - APA, 2014), psychopathy embraces affective and personality aspects (Hare, 2013). Accordingly, psychopathic individuals may meet the criteria of ASPD, estimating that 90% of psychopaths suffer from ASPD, while only 15% to 30% of individuals with ASPD satisfy the criteria for psychopathy (Hüss, 2011; Stéphane et al., 2016). This distinction is important due to the fact that the majority of common criminals satisfy the diagnosis of ASPD, but not psychopathy.

In this regard, it is estimated that the rate of criminal recidivism in individuals with high levels of psychopathy is 4.52 times higher than for individuals with low levels of psychopathy (Morana, 2004). Therefore, it is of fundamental importance to identify the level of psychopathy of individuals in prison for issues

such as the prevention of criminal recidivism, social rehabilitation or form of punishment, and the granting of benefits such as being transferred to a less restrictive regime within the prison progression system, primarily for those who exhibit low levels of psychopathy.

As far as the evaluation of psychopathy is concerned, the most frequently used diagnostic tool is the Psychopathy Checklist-revised (PCL-R; Hare, 1991) which was adapted by Morana and Hare, presenting evidence of validity for the Brazilian setting (2004). The PCL-R is the first and only standardized tool exclusive to the Brazilian penal system which seeks to evaluate the characteristics of psychopathy and predict criminal recidivism (Ambiel, 2006).

However, besides the characteristics of psychopathy, other personality traits have also been pinpointed as risk factors, such as neuroticism and openness to experience (Esteves et al., 2018; Miller & Lynam, 2015). Personality traits will now be considered.

Personality traits

Extensively divulged in a variety of studies, the Big Five-Factor model (FFM), put together by McCrae and Costa (1992), identifies five personality traits regarded as the basic tendencies with biological foundations, that are not directly influenced by the environment. In this regard, the five traits of the FFM refer to the dimensions of *Openness to experience* which includes exploratory behavior and recognition of the importance of experiencing new sensations. Individuals with high scores are characterized as being creative, inventive, curious and seeking innovative ideas, whereas low-scoring individuals are characterized as conservative and conventional in their beliefs; *Conscientiousness*, which indicates the control of impulses and behavior directed towards a specific objective. High-scoring individuals are characterized as being organized, tenacious, reliable and industrious while, on the other hand, the characteristics of low-scoring individuals include not having clear goals, being less reliable, generally described as indolent, negligent and pleasure-seeking; *Extraversion*, a dimension that refers to the number and intensity of interpersonal relations. High-scoring individuals are characterized by being sociable, active, talkative, optimistic and affectionate. Low-scoring individuals, on the other hand, are quiet, reserved, somber, independent and indifferent; *Agreeableness*, which refers to a continuum that ranges from compassion to antagonism. High-scoring individuals tend to be described as generous, kind, affable, obliging and altruistic, while low-scoring individuals

are described as uncooperative, cynical and quick-tempered and may ultimately be manipulative, vengeful and fastidious; and lastly, *Neuroticism*, which identifies individuals who are prone to psychological suffering and who may present with high levels of anxiety, depression and hostility. High-scoring individuals, in this factor, are described as people with unrealistic ideals, low tolerance to frustration and maladaptive coping responses, frequently experiencing irritation, melancholy and embarrassment. In contrast, low-scoring individuals tend to be more emotionally balanced and independent (Costa & Widiger, 1993; McCrae, 2006).

This model has been used to determine risk factors for criminal behavior (Listwan et al., 2010; Vachon et al., 2013). In Brazil, however, the majority of studies use samples of university students, associating the FFM dimensions with psychopathy or antisocial behavior (Formiga et al., 2010; Monteiro et al., 2015). Regarding these relations, in a meta-analysis that identified 310 studies with independent samples, it was possible to observe that the level of psychopathy was negatively associated with the traits of agreeableness ($r = -0.42$) and conscientiousness ($r = -0.31$) and positively associated with the dimensions of extraversion ($r = 0.04$), neuroticism ($r = 0.05$) and openness to experience ($r = 0.04$) (O'Boyle et al., 2014). However, other patterns have also been reported in the literature, such as in the study carried out by Esteves et al. (2018), with 48 inmates, which found a positive association between the level of secondary psychopathy and the trait of openness to experience ($r = 0.36$), and a negative association between the level of secondary psychopathy and the traits of extraversion ($r = -0.06$) and conscientiousness ($r = -0.15$).

Given this evidence, it is of fundamental importance to understand the degree to which the level of psychopathy is related to the different personality traits, by identifying associated characteristics that may act as risk factors for antisocial behavior.

Human Values

The functionalist theory of human values was developed by Gouveia et al. (2014), based on four premises: (1) human nature is benevolent; (2) the values are individual, guiding principles that dictate behavior; (3) the values possess a motivational basis, in other words, they are cognitive representations of human needs; and lastly, (4) only terminal values are considered because they are smaller in number and easy to conceptualize. From this perspective, the values are

deemed to be psychological aspects whose functions are to guide human actions and cognitively represent necessity. The confluence of these functions results in six evaluation subtypes, namely: *experimentation*, formed by values (emotion, pleasure and sexuality) that describe individuals seeking new sensations and who find it easier to make changes and innovate; *realization*, formed by values (success, power and prestige) typical of individuals who are guided by material and practical realizations and always strive for personal success in the decisions they take; *existence*, formed by values (personal stability, health and survival) that apply to individuals who seek to guarantee the conditions of basic, biological or psychological survival; *supra-personal*, formed by values (beauty, knowledge and maturity) that describe individuals with needs of an esthetic, cognitive or self-realizing nature, and have a mature understanding of life; *interactive*, formed by values (affectivity, social support and social harmony) that represent individuals with a need to belong, to love, and who seek to maintain interpersonal relations; and *normative*, formed by values (obedience, religiousness and tradition) that indicate individuals with a propensity to preserving culture and social standards (Gouveia, 2013; Gouveia et al., 2014)

Studies conducted into the relationship between values and antisocial, criminal behavior showed that, in particular, antisocial conduct is negatively associated with normative values ($r = -0.22$), supra-personal values ($r = -0.19$) and interactive values ($r = -0.13$). This outcome shows that individuals who become involved in antisocial behavior may exhibit weak adherence to conventional, social roles, lack of commitment to conventional society, feel no great need to belong and have damaged interpersonal relationships (Formiga & Gouveia, 2005; Medeiros et al., 2017). Moreover, antisocial conduct was positively associated with values of experimentation ($r = 0.25$) and realization ($r = 0.09$), indicating a greater propensity to seek new sensations, like the use of drugs and unprotected sexual behavior, and a quest for personal success in their decisions (Formiga & Gouveia, 2005).

Given the above, the aim of the present study was to understand to what extent the characteristics of psychopathy are related to the traits of personality and human values in a prison population, as a result of the potential interactions and implications for violent behavior. Thus, it is hoped to offer a theoretical contribution to the submission of evidence concerning risk factors that characterize a sample of prison inmates.

Method

Participants

A total of 56 inmates took part, from two prison units in the Paraíba state capital, João Pessoa, of which 11 (19.6%) were male and 45 (80.4%) female, aged between 21 and 51, with a mean age of 33.44 years ($SD = 7.15$). This was a (non-probabilistic) convenience sample. The selected participants came from two prisons and agreed to take part in the study. Table 1 provides a breakdown of participant characteristics.

As can be observed from Table 1, 46 (82.1%) respondents were single, 34 (60.7%) had not completed elementary education and 32 (57.2%) were not repeat offenders. In addition, the most common types of crime were: 20 (29%) illegal drug trafficking and eight (11.6%) theft using serious threats or violence.

Instruments

To collect the information, the tools described below were employed:

- 1) The Hare Scale (PCL-R): conceived by Hare (1991), and with evidence of validity for the Brazilian domain, provided by Morana and Hare (2004), aimed at evaluating the level of psychopathy. The PCL-R is a semi-structured interview comprising 20 items on a scale of zero to two (0, 1, 2), where “zero” is the score for an item which “does not apply” to the interviewee, “one” where the item “applies somewhat” and “two” where the item “fully applies” to the interviewee. The 20 items comprising the PCL-R are divided into two factors that seek to evaluate the following characteristics: (a) Factor 1 (comprising eight items) is defined by the nuclear characteristics of the personality traits that make up the prototypical profile of the condition of psychopathy; this factor is usually called *the interpersonal/affective factor* and encompasses the following items: loquacity/superficial charm, excessive self-esteem, pathological lying, deceit/manipulation, lack of remorse or guilt, affective/emotional insensitivity, indifference/lack of empathy and failure to accept responsibility for one’s own actions; (b) Factor 2 (comprising nine items) is defined by patterns associated with unstable behavior, impulsiveness and an antisocial lifestyle; it is generally called *the socially deviant or antisocial lifestyle factor* and includes the following items: need

Table 1.
Characterization of the sample – sociodemographic data

Sociodemographic Data	Distribution
Marital Status	
Single	46 (82.1%)
Married	5 (8.9%)
Divorced	1 (1.8%)
Separated	2 (3.6%)
Widow(er)	2 (3.6%)
Schooling	
Illiterate	5 (9.0%)
Elementary education incomplete	34 (60.7%)
Elementary education completed	4 (7.1%)
High school incomplete	7 (12.5%)
High school completed	4 (7.1%)
Missing	55 (98.2%)
Repeat offenders	
Yes	24 (42.9%)
No	32 (57.2%)

for stimulation/proneness to boredom, parasitic lifestyle, lack of control over behavior, behavioral disorders in childhood, absence of realistic long-term goals, impulsiveness, irresponsibility, juvenile delinquency and having had conditional liberty revoked. Three items (promiscuous sexual behavior, criminal versatility and short-lived marital relationships), which are part of the PCL-R, do not fit statistically into any of these factors, although they are used to determine the final points score.

- 2) Big Five-Factor Personality Inventory: initially adapted for Brazil by Andrade (2008) with evidence of validity based on the internal structure, a brief 20-item version was used, as adapted by Gouveia et al. (2021). The tool evaluates personality according to the big five factors. These factors are listed below with the respective coefficients of Cronbach's alpha (α), McDonald's omega (ω) and Guttman's lambda 2 (λ), encountered in the present study: agreeability ($\alpha = 0.54$; $\omega = 0.57$; $\lambda = 0.56$), extraversion ($\alpha = 0.69$; $\omega = 0.71$; $\lambda = 0.71$), conscientiousness ($\alpha = 0.33$; $\omega = 0.38$; $\lambda = 0.37$), openness to experience ($\alpha = 0.67$; $\omega = 0.70$; $\lambda = 0.68$) and neuroticism ($\alpha = 0.66$; $\omega = 0.69$; $\lambda = 0.68$). The instrument's items are

answered on a five-point Likert scale ranging from 1 - "I totally disagree" to 5 - "I totally agree".

- 3) Basic Values Questionnaire – BVQ (Gouveia, 2013): This instrument is composed of 18 items (basic values), divided into six psychosocial subtypes. These subtypes are described below with the respective indices of reliability found in the present study: experimentation (emotion, pleasure and sexual) ($\alpha = 0.28$; $\omega = 0.36$; $\lambda = 0.34$), realization (success, power and prestige) ($\alpha = 0.18$; $\omega = 0.39$; $\lambda = 0.35$), existence (personal stability, health and survival) ($\alpha = 0.38$; $\omega = 0.47$; $\lambda = 0.41$), supra-personal (beauty, knowledge and maturity) ($\alpha = 0.56$; $\omega = 0.66$; $\lambda = 0.62$), interactive (affectivity, social support and social harmony) ($\alpha = 0.46$; $\omega = 0.63$; $\lambda = 0.49$) and normative (obedience, religiousness and tradition) ($\alpha = 0.36$; $\omega = 0.45$; $\lambda = 0.39$). To be able to respond, the participant has to read a list of values and indicate to what extent each of them is important as a guiding principle in their lives. For these purposes, a response scale is employed ranging from 1 = 'Totally unimportant to 7 = Of the utmost importance.
- 4) Sociodemographic questionnaire: in order to characterize the sample of respondents, questions

concerning age, marital status, level of schooling, history of criminal activity, etc., were applied.

Procedures

Initially, authorization was requested from the State Department for Penitentiary Administration (SEAP), and from the administration at two penitentiaries in the city of João Pessoa, Paraíba. The project was subsequently submitted to the Research Ethics Committee via the Brazil Platform research registry, and was subsequently approved (Opinion n°: 03642912.0.0000.5183). Dates were set for the commencement of the analysis of inmate records and the individual application of the instruments, while observing the *modus operandi* of the prison system. Prior to application, it was explained to the participants that their responses would be recorded anonymously and kept confidential. They were required to sign a Free and Informed Consent Agreement (FIC). The application of the entire data collection procedure took approximately 90 minutes, varying according to the availability and conditions of each participant.

Data analysis

Using the Statistical Package for the Social Sciences software package (SPSS version 25), descriptive statistics were employed (mean, standard deviation, minimum and maximum, standard error and 95%

confidence interval) to describe the specific results for each of the scales and their respective factors. Besides the descriptive analyses, analyses of the parametric statistical assumptions were also carried out (normality, homoscedasticity and linearity), as well as Spearman's *r*_{ho} to ascertain to what degree the variables were correlated.

Results

To begin with, descriptive analyses were performed for each of the scales employed, along with the respective factors. The results are displayed in Table 2.

As shown in Table 2, the sample showed socially deviant/antisocial lifestyle to be the most characteristic (Factor 2) (M = 11.58; SD = 4.79), the least prominent being the interpersonal/affective aspect (Factor 1) (M = 10.94; SD = 3.29). Predictably, these scores show that the studied sample has a predominance of antisocial and criminal behavior in relation to psychopathy.

As for the traits of personality, the presented profile is defined by scores above the midpoint of the scale for all of the factors, in which the traits of agreeability and conscientiousness achieved the highest scores, followed by extraversion and openness to experience. The results also showed that the values of the subtypes existence, normative and interactive were the values indicated as top priority for the studied population.

Table 2.

Mean, Standard deviation, Minimum and Maximum, Standard error and 95% Confidence interval

Variables	Mean	Standard deviation	Min – Max	SE	95% CI
PCL-R- F1	10.94	3.29	3 – 16	0.44	10.06 – 11.83
PCL-R- F2	11.58	4.79	0 – 18	0.64	10.29 – 12.86
Openness	3.52	0.73	1.75 – 5.00	0.09	3.33 – 3.72
Neuroticism	3.22	0.81	1.75 – 5.00	0.10	3.00 – 3.44
Extraversion	3.54	0.75	1.75 – 5.00	0.10	3.34 – 3.74
Conscientiousness	3.99	0.59	2.75 – 5.00	0.59	3.87 – 4.11
Agreeability	3.99	0.57	2.00 – 5.00	0.07	2.00 – 5.00
Existence	5.83	0.72	4.33 – 7.00	0.96	5.63 – 6.02
Realization	4.69	0.94	2.00 – 6.67	0.12	4.43 – 4.94
Normative	5.77	0.69	4.00 – 7.00	0.09	5.59 – 5.96
Supra-personal	5.02	1.02	2.67 – 7.00	0.13	4.74 – 5.29
Experimentation	4.23	1.17	1.33 – 7.00	0.15	3.92 – 4.55
Interactive	5.35	0.85	2.67 – 7.00	0.11	5.12 – 5.58

Min – Max = Minimum and maximum values; SE = Standard error; CI = Confidence Interval.

As a result of the identification of non-normality through the Kolmogorov-Smirnov test, it was decided to perform nonparametric statistical analyses. The results of Spearman's *rho* correlations between factor 1 (interpersonal/affective) and factor 2 of the PCL-R with the dimensions of personality and the evaluation subtypes, are displayed in Tables 3 and 4, respectively.

As can be observed from Table 3, the correlations did not indicate significant associations between the FFM dimensions of personality and evaluation subtypes and the interpersonal/affective factor (Factor 1) of the PCL-R. Column three in Table 3 shows the effect size (r^2) with all values approximating zero.

However, the socially deviant/antisocial lifestyle factor of the PCL-R (Factor 2) exhibited a significant association with the dimensions of neuroticism personality ($r_s = 0.44; p < 0.01$) and openness to experience ($r_s = 0.26; p < 0.05$), showing that the greater the anti-social/deviant behavior the individual has exhibited, the greater the tendency for emotional instability and to seek new experiences. In addition, the results also pointed to a significant relationship between the subtype experimentation ($r_s = 0.36; p < 0.01$), the socially deviant/antisocial lifestyle factor of the PCL-R. The effect size (column r^2) indicates that, irrespective of sample size, the strongest associations were established between PCL-R factor 2 and the traits of neuroticism

personality and openness to experience, as well as the values relating to experimentation.

Discussion

The aim of the present study was to understand to what extent the characteristics of psychopathy are associated with the traits of personality and human values in a prison population. Thus, it is believed that this objective has been attained. It should be stressed that the low number of studies to have investigated these constructs in samples of convicts in Brazil is something of a limitation when comparing the results explained herein.

To begin with, the results of the sample studied here indicate a personality profile distinguished by agreeableness, conscientiousness and extraversion, also identifying more of a socially deviant/antisocial lifestyle characterized via PCL-R Factor 2. This profile appears to provide evidence of a sample with low levels of psychopathy, but with marked antisocial behavior.

Moreover, the relationship between personality traits and PCL-R factors, as evidenced by this study, indicates a positive association with the traits of openness to experience and neuroticism. This pattern of personality is similar to the study conducted by Esteves et al. (2018), which was also carried out with a sample of 48 inmates, in which the personality profile was marked by traits of agreeableness ($M = 4.63; SD = 0.65$),

Table 3.

Spearman's rho correlation between the factor 1 score – interpersonal of the PCL-R and the factors of personality and evaluation subtypes

Variables	Spearman's r_s	p	r^2
PCL-R Factor 1			
Openness	0.10	0.46	0.01
Neuroticism	-0.19	0.14	0.03
Extroversion	-0.11	0.41	0.01
Conscientiousness	0.12	0.37	0.01
Agreeability	0.10	0.43	0.01
Existence	-0.02	0.85	0.00
Realization	0.01	0.90	0.00
Normative	-0.07	0.56	0.00
Supra-personal	-0.06	0.96	0.00
Experimentation	0.02	0.99	0.00
Interactive	-0.12	0.35	0.01

NB: Spearman's r_s : Spearman's *rho* correlation; p = level of significance; r^2 = effect size.

Table 4.

Spearman's rho correlation between the factor 2 score - behavioral of the PCL-R and the factors of personality and evaluation subtypes

Variables	Spearman's r_s	p	r^2
	PCL-R Factor 2		
Openness	0.26*	0.01	0.06
Neuroticism	0.44**	0.001	0.19
Extroversion	0.13	0.33	0.01
Conscientiousness	-0.13	0.30	0.01
Agreeability	-0.08	0.54	0.00
Existence	-0.10	0.44	0.01
Realization	0.02	0.83	0.00
Normative	-0.20	0.13	0.04
Supra-personal	0.22	0.09	0.04
Experimentation	0.36**	0.001	0.12
Interactive	0.03	0.78	0.00

NB: Spearman's r_s ; Spearman's rho correlation; p = level of significance; r^2 = effect size.

openness to experience ($M = 4.16$; $SD = 0.60$) and conscientiousness ($M = 4.07$; $SD = 0.63$), as well as with primary psychopathy ($M = 2.02$; $SD = 0.57$), which corresponds to PCL-R Factor 1. As for the other factor (secondary psychopathy), which corresponds to PCL-R Factor 2, this was positively albeit weakly associated with the trait of conscientiousness ($r = -0.15$; $p < 0.05$). However, when compared to the pattern of personality, the findings are divergent when correlating characteristics of psychopathy in samples of university students. The pattern presented by this type of sample shows a negative association with the traits of agreeableness, conscientiousness, and extraversion, as well as a positive association with neuroticism and no association at all with the dimension of openness to experience (Lynam et al., 2006; Miller et al., 2008; Miller et al. 2011). Moreover, the available evidence suggests that the psychopathy profile, in relation to personality, presents a configuration of very low scores for agreeableness and conscientiousness (Lynam & Miller, 2015; O'Boyle et al., 2014). This proximity with a sample of inmates and divergence with a sample of university students suggests an adaptive pattern in inmates, indicating a manifestation of socially desirable characteristics. The higher scores for the agreeableness factor, as evidenced in the present study, in a sample which was predominantly female and with low levels of education, may be indicative of socially desirable responses.

As far as human values are concerned, the profile exhibited by the sample is marked by the subtypes existence, normative and interactive. It should be pointed out that only the experimentation subtype is positively associated, albeit weakly, with PCL-R Factor 2. These results differ from those reported in the literature, where the pattern presents a negative and weak association of antisocial behavior with the subtypes normative, supra-personal and interactive, although it is in agreement about the association between antisocial conduct and the experimentation subtype ($r = 0.25$) (Formiga & Gouveia, 2005). Accordingly, it is possible to determine that antisocial behavior, in this sample, is associated with seeking out new sensations, such as the use of drugs and unprotected sex, and a search for personal success in their decision-making. The contribution of the study of values and their relationship with psychopathy can be seen insofar as the former may be formally defined as orientation criteria that guide human actions, and cognitively express their basic needs (Gouveia, 2013).

Nevertheless, the evidence reported here should be viewed with extreme caution. The study presented here used a non-probabilistic sample of inmates from two prisons, which might indicate a very specific cross-section, namely those who are put behind bars. Moreover, the level of schooling and rate of recidivism were not taken into account in this study. It is also necessary to consider the use of self-report measures (Bäckström

& Björklund, 2016); and/or the *modus operandi* of the prison system may have resulted in unidentified bias.

Taking into consideration the specifics of the present study, the evidence reported here indicates that the interaction of certain personality traits and human values may be indicative of antisocial conduct. However, it should also be remembered that the sample studied here was predominantly composed of women, who presented with a lower level of psychopathy than the men (Pinheiro et al., 2020; Verona & Vitale, 2018). It would be necessary to apply it to a sample with a more equitable representation of the sexes. A further limitation worthy of consideration is the low index of reliability that some instrument factors showed in the present study (e.g., factors of personality of agreeableness and conscientiousness; evaluation subtypes of experimentation, realization, existence and normative). These low indices of reliability may have led to a certain bias in the associations reported. These indices may have been observed as a result of the relatively small sample size, and also due to the low level of education of individuals included in the sample.

In addition, in future studies, it will be necessary to use broader samples and evaluations that enable bias (e.g., social desirability) or simulation/dissimulation to be further reduced (Amorim-Gaudêncio et al., 2020), such as a version of the Big Five Inventory composed of items with lower social desirability (Costa & Hauck-Filho, 2017), the use of the Interpersonal Measure of Psychopathy (IM-P) (Davoglio et al., 2011) or a purpose-specific index (Simões & Hauck-Filho, 2018). However, it is important to stress the difficulty of obtaining access to this type of population, with many inmates declining to participate in the study, fearing the potential risk of an extension to the period of confinement in the prison system. Lastly, it should be stressed that new studies need to be more explicit about the relationship of these variables for inmates in the prison system in Brazil. New evidence could, in theory, help to gather more robust evidence about risk variables for antisocial behavior and, in practice, improve assessments in judicial and intervention processes within the prison system.

Final reflections

It is our conclusion that the present study does contribute to an understanding of personality traits and human values associated with psychopathy, by broadening the nomological network of this construct. In

particular, the present study contributes by showing the associations between personality traits and human values and psychopathy in a predominantly female sample of prison inmates. These results should be viewed within the context of their limitations and should be added to the body of evidence already described by other studies.

For the psychologist, these results can orientate the processes of psychological assessment in this field of activity. We would highlight that psychological assessment, as a process, should be dynamic, as is the human psyche. We would also highlight the all-inclusive character which should permeate psychological assessment, as the outcome should reflect the historical, social and cultural aspects of those being evaluated (Andrade & Sales, 2017). As highlighted by Amorim-Gaudêncio et al. (2013), the process of psychological assessment should serve as a tool to be used on individuals, modifying potentially entrenched perceptions that could be detrimental to these individuals/groups, it being necessary to take into account the different moments in the process.

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