

# Emotions, Affections, and Psychopathy Among Female Prisoners

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## Abstract

The present study intends to be a contribution to understand affections and emotions associated with female psychopathy. Although there are several studies aiming to understand psychopathy, there is still a gap in the integration of such a concept in affective dimensions, as well as a scarcity of surveys conducted in the female population. Sixty-three women confined to prison, located in the North region of Portugal, participated in this study. Participants were assessed using the Positive and Negative Affect Schedule (PANAS), the Levenson's Self-Report Psychopathy Scale (LSRP), and the Hare's Psychopathy Checklist–Revised (PCL-R). Results showed that only nine women presented moderate scores of psychopathy. Moreover, women with higher psychopathy scores revealed deficits in positive emotional abilities, and secondary psychopathy was related with predominance of negative affection. In the future, it would be useful to develop more effective instruments to assess emotions and affections in psychopaths.

## Keywords

psychopathy, affections, emotions, female prisoners

## Introduction

The concept of psychopathy is extremely controversial, and researchers often question the relationship between psychopathy and emotional experiences. Emotions are not easy to describe, and, even though difficult to express, they convey a plurality of indispensable information (Smith et al., 2014).

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Taking into account the scarce literature on this theme, especially among female individuals, the present study aims to fulfill some scientific gaps, mainly to what concerns the relationship between women's emotional/affective characteristics and psychopathy. In particular, in this study, we aim to clarify which affections/emotions are experienced by women in prison and to understand the relationship between such emotions and psychopathy.

Psychopathy has been widely defined as a clinical construct comprising interpersonal (e.g., egocentricity, deception, manipulation), affective (e.g., shallow affect, a lack of empathy, guilt, or remorse; Factor 1), and behavioral characteristics (e.g., irresponsibility, impulsivity, unethical, and antisocial behaviors; Factor 2; Hare, 2003; Neumann et al., 2007). This conceptualization is highly rooted in the Hare's and collaborators' work and in the most known assessment instrument for psychopathy—the Psychopathy Checklist–Revised (PCL-R; Hare, 1991, 2003). However, other perspectives on psychopathy emerged. Karpman (1941) described two types of psychopaths based on clinical observation: the idiopathic and the symptomatic, later known as primary and secondary psychopaths, respectively. The author believes that primary and secondary psychopaths are constitutionally different but phenotypically similar: Primary psychopaths show symptoms of constitutional affective deficit, whereas secondary psychopaths reveal symptoms of affective disorder based on a premature psychosocial learning. This second type shows a stronger level of human emotions, such as empathy or desire to be accepted, revealing behavior caused by a neurotic emotional reaction (e.g., depression, anxiety, guilt, hostility), whereas primary psychopaths are individuals with cold, aggressive, and insensitive behavior (Poythress et al., 2006). Primary psychopathy has been seen as a consequence of some intrinsic deficit that hinders self-regulation and normal adjustment. It is usually characterized by lack of anxiety and associated with affective and attention-related deficits. However, secondary psychopathy is believed to be associated to social disadvantages, excessive neuroticism, anxiety, and/or some other form of psychopathology (Cleckley, 1941/1976; Lykken, 1995). According to the dual process model, the interpersonal and affective symptoms of psychopathy (PCL-R Factor 1) correspond to a deficit related to the amygdala in the processing of emotions, whereas impulsive and antisocial symptoms (behavioral characteristics) correspond to a deficit in executive control that disinhibits impulsive behavior. Patrick (2007) proposed that Factor 1 (affective and interpersonal symptoms) is associated with a weak defensive system that reduces behavioral and physiological reactions to direct threats, whereas Factor 2 (impulsive and antisocial symptoms) is associated with a deficit in information processing that interferes with the processing of threat alerts, the activation of the defensive system, and impairs the inhibition of approach behavior. To what concerns gender, studies point to some consistencies between males and females. Similar to male primary psychopaths (Hicks et al., 2004), the female primary group did not exhibit a particularly deviant behavior. Female secondary psychopathy was associated with externalizing disorders and overall malfunction (Krueger et al., 2000), as identified in previous studies with male prisoners (Hicks et al., 2004; Skeem et al., 2007). The subtype secondary psychopathy (for both men and women) is similar to an externalizing variant of

borderline personality disorder (Shevlin et al., 2007). In terms of subtype differences, primary and secondary female psychopaths differ in several important variables including the onset of antisocial behavior, substance use patterns, and mental health. Primary psychopathy is associated with an adult onset of criminal and antisocial behavior, whereas secondary psychopaths tended to present an onset in childhood (Hicks et al., 2010).

Literature has shown that psychopathic males are callous and have deficits in the ability to experience a normal range and depth of emotional experiences (Cleckley, 1941/1976; Hare, 1996). Psychopaths often exhibit emotional impairments, such as dysfunctional affective processing (i.e., absence of insights on emotions), predominantly negative affect, poor emotional control, and deficits in experiencing complex emotions (i.e., trust, respect, and guilt; Gawda, 2013). Despite the disproportional amount of research that has been focused on men, there is now a growing interest in women.

The prevalence and incidence of psychopathic women are much lower compared with psychopathic men (Jackson et al., 2002; Verona & Vitale, 2018); however, research showed other differences between female and male psychopaths (e.g., Forouzan & Cooke, 2005; Grann, 2000). Grann (2000) found that insensitivity, lack of empathy, and juvenile delinquency were more associated with the male gender, whereas promiscuous sexual behavior and abuse of alcoholic substances to the female gender. Some evidence suggests that the fundamental deficits in emotional processing observed in male psychopaths may be generalized to female psychopaths (Vitale et al., 2007). Studies on female samples found poor emotional processing, typically found in male psychopaths (Sutton et al., 2002), and found that female psychopaths did not exhibit perseverance in response (Vitale & Newman, 2001), perhaps because female psychopaths were characterized by low levels of disinhibition. Studies conducted with women raise the hypothesis that they may not present the same processing deficit as men with psychopathic traits (Sutton et al., 2002). Poor processing of emotions in male psychopaths can be seen in several studies (Lorenz & Newman, 2002; Verona et al., 2004). In contrast to nonpsychopathic individuals, individuals who score in psychopathic traits exhibit weaker psychophysiological reactions to emotional stimuli (Levenston et al., 2000) and are less likely to inhibit previously rewarded responses that now result in punishment (e.g., Lykken, 1957).

Forouzan and Cooke (2005) found evidence of gender differences in traits and characteristic expressions of psychopathic traits, theorizing four key differences in manifestations of gender psychopathy: (a) differential expressions of psychopathic behavior, (b) differences in interpersonal characteristics, (c) different psychological motivations underlying indicators of psychopathy, and (d) potential bias in the evaluation of psychopathy according to social norms. Interpersonally, deceitful men are more likely to be conning, whereas women are more likely to act flirtatiously. Behaviorally, male psychopaths often manifest impulsivity and conduct problems as violent behavior, whereas female psychopaths usually engage in running away, self-harming behaviors, manipulation, and property crimes such as theft or fraud. At the level of motivations, female psychopaths tend to engage in promising behaviors to obtain some gain (e.g., money), whereas male psychopaths are motivated by their propensity to search for sensations or sexual activity (Quinsey, 2002).

The manifestation of psychopathy in women is more nuanced and hidden, but still highly destructive to others (de Vogel, 2014). Women with psychopathy show significantly more manipulative behavior compared with women without psychopathy (de Vogel & Lancel, 2016). Literature postulates that psychopathic women may be—or present as—less grandiose, physically dominant, and more aggressive than psychopathic men, and may use more relational aggression and sexual seduction to manipulate, dominate, and exploit others. Psychopathic women may present themselves as more emotionally unstable and engage in stronger impression management than psychopathic men (Kreis & Cooke, 2011). Psychopathic women would be expected to dominate, control, and exploit others using their sexuality, interpersonal skills, and more relational aggressive means. Yet, they should be just as able and willing as psychopathic men to use physical aggression if the rewards are worth the risk, but to be more likely to express aggression and dominance within close interpersonal relationships (Kreis & Cooke, 2011). Psychopathic women would also be expected to be more emotionally labile than psychopathic men, or at least present as such. They may also present as caring and empathic, using these stereotypical female characteristics as a manipulative guise, a mask of maternalism (Kreis & Cooke, 2011). Psychopathic women should, thus, predominantly employ subtler interpersonal dominance and exploitative strategies (Kreis & Cooke, 2011). Some evidence suggests that the fundamental deficits in emotional processing observed in male psychopaths may be generalized to female psychopaths (Vitale et al., 2007). Studies on female samples found poor emotional processing, typically found in male psychopaths (Sutton et al., 2002), and found that female psychopaths did not exhibit perseverance in response (Vitale & Newman, 2001), perhaps because female psychopaths were characterized by low levels of disinhibition. Studies conducted with women raise the hypothesis that women may not present the same processing deficit as men with traits of psychopathy (Sutton et al., 2002). Although literature points to differences between men and women with psychopathic traits in terms of emotional processing, there is still a lack of research among female samples, especially in the Portuguese context. Thus, the present study aims to fulfill a gap in literature and contribute to a deeper understanding of emotions and affections among women with psychopathic traits. In addressing the emotional domain, one speaks of three important constructs: emotions, affections, and mood. These constructs are used indistinctly and imprecisely and are often considered as synonyms. Despite being so, that does not represent a fallacy, as the three are connected. Emotions can be conceptualized as states of readiness for adaptive action, reflecting activity in two opposing motor systems: an appetitive system that engenders behavior and involvement with the environment and a defensive system that avoids and protects against danger. Affective states may be summoned by real-life events (e.g., food or an impending predator) or by symbolic representations of such events (e.g., images or text). In both cases, emotional arousal results from the activation of cognitive–perceptive representations that connect with the appetitive or defensive action system (Verona et al., 2004). Affections are waves of emotion in which there is a sudden exacerbation of emotion usually in response to an event, and mood is the emotional state that prevails at a given moment, being a lasting, reactive, or endogenous disposition to react to events with a certain type of emotion (Pathak et al., 2011).

The terms emotions, affections, and humor pose a puzzle to many people. Although they represent closely related phenomena, they are distinct. However, this distinction is unclear, as an emotion, affect, or mood seems very similar to the person who experiences it (Shouse, 2005). Clarifying constructs is essential for research because unclear terminology may produce ambiguous results. Affections, emotions, feelings, moods, passions are all part of the so-called affective life, but they are not always clearly distinguished (Pio Abreu, 2013). This study focuses more on affections and emotions, because moods are low intensity, diffuse feeling states that usually do not have a clear antecedent, and can be characterized as relatively unstable short-term intraindividual changes (Kelly & Barsade, 2001). Unlike emotions, people may not realize that they are experiencing a “mood” and may also be unaware that mood is influencing their behavior.

Taking into account the diverse models suggested for specific deficit in fear reactivity, Lykken’s (1995) approach assumes itself as one that has a major impact on research. This model, known as “fearlessness hypothesis,” is based on Karpman’s (1941) theory and Gray’s (1987) biological model of personality (Poythress et al., 2008). Gray’s model defends the existence of two main components: behavioral inhibition system (BIS), a system of behavioral inhibition that regulates the response to aversive stimuli and that is associated with negative affect (NA) experiences; and Behavioral Approach System (BAS), an unspecified excitement system that receives inputs from BAS and BIS activated by stimuli associated with reward, escape, fear, or pain (Baskin-Sommers et al., 2010; Newman et al., 2005). According to Gray, the BIS system is sensitive to signs of punishment, lack of reward, and novelty, and is responsible for the experience of negative affect (e.g., fear, anxiety, and sadness). The BAS system is sensitive to signs of reward, nonpunishment, and avoidance of punishment. The BAS system consists of three components that analyze how individuals respond to rewarding events: responsiveness to reward, motivation toward compelling goals, and pursuit of fun (Uzieblo et al., 2007). Research on the relationship between psychopathy and BIS/BAS systems is relevant, and several authors have hypothesized that psychopathy results from a subactive BIS and/or hyperactive BAS. Gray (1970) suggested that psychopaths seek rewards without fear of punishment, indicating a low BIS activity. This view was supported by a number of studies, including diminished aversive conditioning (Flor et al., 2002), reduced fear of psychopathy (Patrick et al., 1994), and also been associated with lack of anxiety (Cleckley, 1941/1976).

The postulated model is of particular relevance because if individuals with psychopathic traits have deficits in recognizing emotions, they probably also have deficits in recognizing affective stimuli as being sufficiently aversive. Thus, individuals with psychopathic traits do not experience the negative consequence of feeling bad, and instead of inhibiting antisocial actions that may generate fear and sadness in other people, they can feel reinforced by it (Blair, 2006). This hypothesis is compatible with the affective component of psychopathy, that is, lack of empathy and guilt (Dawel et al., 2012). Some findings suggest that BIS differentiates primary from secondary psychopathy, showing that the primary psychopathy is associated with low anxiety (associated predominantly with low scores on measures of the BIS) and secondary psychopathy is associated with general externalizing tendencies (associated predominantly with high scores on measures of the BAS; Wallace et al., 2009). These findings

point to higher levels of anxiety and goal conflict, consistent with Karpman's original formulation of secondary psychopathy as a neurotic variant. This theory also postulates two dimensions of personality, which are called anxiety (or anxiety proneness) and impulsivity. It represents individual differences in the sensitivity of two neurological systems in their responses to relevant environmental cues. One of these systems regulates aversive motivation; the other regulates appetitive motivation (Fowles & Dindo, 2006). There is also a reciprocal relationship between BAS and BIS. Thus, when BAS is too strong, the BIS will fail to interrupt approach behavior in reaction to punishment cues (Baskin-Sommers et al., 2010).

The research theme is theoretically and pragmatically relevant, because little is known about female psychopathy. In addition, psychopathy is of relevance to what concern treatment, risk assessment, and prediction of violent behavior. Regardless of the studies conducted on this theme and assuming the gap in literature concerning the integration of psychopathy in other related concepts, this study intends to contribute to a deeper knowledge on the area.

Based on the theoretical framing previously described, the general aim of the present exploratory study is to understand the emotions and affections experienced and their relation with psychopathy in female prisoners. The specific aims of the survey are (a) to analyze the correlation between experienced emotions and affections and psychopathy scores and (b) to analyze the correlation between emotions, affections, and primary and secondary psychopathy.

## **Method**

### *Sample*

The sample included 63 female prisoners. As displayed in Table 1, the participants' age was, in average, 27.29 years ( $SD = 10.06$  years), ranging between 21 and 66 years. The majority of the women were Portuguese (88.9%) and approximately half of the participants were single (50.8%). The average of the total sentence was 77.34 months ( $SD = 65.87$  months), ranging between 2 and 300 months. The majority of the participants were convicted (93.7%) and more than a half were recidivists (55.6%); 65.1% ( $n = 41$ ) were convicted for a unique crime and 42.9% ( $n = 27$ ) were sentenced for drug dealing.

### *Procedure*

Authorization to conduct the present study and to assess female offenders was obtained from the General Directorate of Reintegration and Prison Services—Ministry of Justice (DGRSP-MJ). Data were collected in one national female prison. Participants were selected by convenience: Those who were working, at school, or resting were contacted; all procedures were explained; and the informed consent was signed. All the participants then completed the measurements. To speak Portuguese and to have reading abilities were defined as inclusion criteria, to avoid results' bias, because the measures used were validated to the Portuguese population and required minimal reading skills. Women who were unable to speak and understand Portuguese were not included

**Table 1.** Sociodemographic Characterization and Juridical–Legal Characterization.

| Variables                        | N (%)      |
|----------------------------------|------------|
| Sociodemographic variables       |            |
| Marital status                   |            |
| Single                           | 32 (50.8%) |
| Divorced/separated               | 13 (20.6%) |
| Married/civil union              | 13 (20.6%) |
| Widowed                          | 5 (7.9%)   |
| Nationality                      |            |
| Portuguese                       | 56 (88.9%) |
| Brazilian                        | 3 (4.8%)   |
| French                           | 1 (1.6%)   |
| Venezuelan                       | 1 (1.6%)   |
| Spanish                          | 1 (1.6%)   |
| Romanian                         | 1 (1.6%)   |
| Juridical–legal variables        |            |
| Type of crime                    |            |
| Crimes against people            | 8 (12.7%)  |
| Crimes against property          | 24 (38.1%) |
| Crimes against life in society   | 3 (4.8%)   |
| Crimes against the government    | 1 (1.6%)   |
| Crimes related to drug dealing   | 27 (42.9%) |
| Juridical situation              |            |
| Remand                           | 4 (6.3%)   |
| Convicted                        | 59 (93.7%) |
| First time/recidivist            |            |
| First time                       | 28 (44.4%) |
| Recidivist                       | 45 (55.6%) |
| Unique crime/more than one crime |            |
| Unique crime                     | 41 (65.1%) |
| More than one crime              | 22 (34.9%) |

in the present study. After that, participants' individual files were analyzed to collect additional information.

All ethical procedures established by the University of Minho Ethics Commission and Portuguese legislation were followed. Participation in the study was anonymous and voluntary.

### *Instruments*

*Sociodemographic and Juridical–Legal Questionnaire.* This questionnaire was developed specifically to this study and aims to gather information on sociodemographic (e.g., age, marital status, nationality) and juridical–legal variables (e.g., crime, sentence, primary/recidivist).

*Positive and Negative Affect Schedule (PANAS)*. PANAS was developed by Watson et al. (1988) to evaluate subjective well-being and affectivity. The scale is constituted by 20 items to assess positive affection (PA) and NA, on a Likert-type scale, ranging between *little or nothing* (1) and *a lot* (5). Ten of the 20 items evaluate PA (e.g., enthusiasm, inspiration, interest) and the remaining 10 assess NA (e.g., annoyance, fear, nervousness). Scores vary between 10 and 50, with higher scores meaning higher levels of PA/NA. PA and NA are independent dimensions, so an increase in NA does not imply a decrease in PA. As they are independent measures, the total sum of the instrument is not considered. In the original study, the internal consistency was of .88 for PA and .87 for NA (Watson et al., 1988). In this study, the Portuguese version of the instrument was used (Galinha & Pais-Ribeiro, 2005). In the Portuguese version, the PA and NA subscales reached a Cronbach's alpha of .86, and .89, respectively. In the present sample, the internal consistency was of .58 and .86 for PA and NA, respectively. The low Cronbach's alpha value could be due to the participants' characteristics, because reliability might be affected by samples' attributes, such as heterogeneity (Streiner, 2003). Thus, this low value of alpha may suggest a higher heterogeneity within the PA subscale than NA subscale. Other authors also refer that when dealing with psychological constructs low alpha values might be expected because of the diversity of the constructs being measured (Field, 2009).

*Levenson's Self-Report Psychopathy Scale (LSRP)*. The LSRP consists of 26 items divided into two separate scales—primary and secondary psychopathy. It evaluates primary and secondary psychopathy, taking into account personality and the original bifactorial structure of PCL-R (Hare, 1991), in an attempt to detect interpersonal styles and philosophies that typify primary and secondary psychopaths (Levenson et al., 1995). The subscale of primary psychopathy includes 16 items related to the interpersonal and affective characteristics of psychopathy (lack of empathy and regret, tendency to manipulate and lie, selfishness, and insensitivity), and the subscale of secondary psychopathy consists of 10 items that measure impulsiveness, tolerance toward frustration, and self-destructive lifestyle. Items are scored in a 4-point Likert-type scale, varying from *I strongly disagree* to *I totally agree*, and the final score, resulting from the sum of each item, varies between 26 and 104. The original instrument (Levenson et al., 1995) had a satisfactory internal consistency (Cronbach's  $\alpha = .82$  and  $.63$ , for primary and secondary psychopathy, respectively).

In this survey, the Portuguese version of the instrument was used (Coelho et al., 2010), which presents a good internal consistency with a Cronbach's alpha of .81 for the total score, .82 for primary psychopathy, and .73 for secondary psychopathy. In the present sample, the instrument showed an internal consistency of .70 and .68, for primary and secondary psychopathy, respectively.

*Hare's PCL-R*. PCL-R is a 20-item checklist that uses a semistructured interview, case-history information, and specific scoring criteria to rate each item on a 3-point scale (0 = *not applied*, 1 = *applied somewhat*, 2 = *fully applied*). The total score, resulting from



the sum of each item's score, varies between 0 and 40. A score equal or superior to 30 indicates the presence of psychopathy; between 20 and 29, points out mixed characteristics or moderate psychopathy; below 20, reflects low levels of psychopathy.

The PCL-R has shown high levels of internal consistency and interrater reliability (Hare & Neumann, 2005). An early exploratory factor analysis revealed two correlated dimensions—Factor 1 and Factor 2—that showed a satisfactory internal consistency. In a latter formulation, Hare and Neumann (2005) advocated that at least four factors are needed to represent PCL-R's construct of psychopathy: interpersonal, affective, lifestyle, and antisocial. In the current study, the PCL-R Portuguese version was used (Gonçalves, 1999), that showed an internal consistency of .84. In the present sample, the internal consistency was .78 and .68, for the interpersonal–affective factor (Factor 1) and antisocial–impulsive factor (Factor 2), respectively.

## Data Analysis

All the analyses were conducted using the Statistical Package for the Social Sciences (SPSS) Version 22. Descriptive statistics were compiled using measures of central and dispersion tendencies to characterize the participants (sociodemographic and juridical–legal variables). Exploratory analyses were conducted to verify whether the parametric tests' assumptions were fulfilled (e.g., normality, homogeneity). Because normality and homogeneity were not assumed, nonparametric tests were conducted. To analyze the correlation between the variables, Spearman coefficient test was used.

## Results

### Descriptive Data

Data concerning descriptive statistics of the different measures are present in Table 2. In PANAS, participants revealed an average of 33.56 ( $SD = 6.26$ ) in PA and of 24.16 ( $SD = 9.74$ ) in NA. Thus, PA is the type of affection more experienced by female offenders.

The participants' average of PCL-R total scale was 10.30 ( $SD = 6.66$ ). Analyzing the factors (two-factor model) of the psychopathy construct, results revealed that female offenders presented higher scores on antisocial–impulsive factor ( $M = 5.51$ ,  $SD = 3.41$ ) than on interpersonal–affective factor ( $M = 4.05$ ,  $SD = 3.59$ ). In the PCL-R facets (four-factor model), results revealed that female offenders presented higher scores on lifestyle ( $M = 3.51$ ,  $SD = 2.35$ ) and affective facets ( $M = 2.33$ ,  $SD = 2.27$ ). The antisocial facet presented the lowest scores ( $M = 1.57$ ,  $SD = 1.68$ ). The analyses of the PCL-R total scores revealed that no women scored above 30 points and only nine of them scored for moderate psychopathy (PCL-R score between 20 and 30).

Analyzing LSRP scores, female offenders presented an average of 37.16 ( $SD = 7.53$ ) in primary psychopathy dimension and an average of 24.48 ( $SD = 5.78$ ) in secondary psychopathy dimension.

**Table 2.** Descriptive Statistics of PANAS, PCL-R, and LSRP Scores.

| Variable                         | M     | SD   | Minimum–maximum | Symmetry | Kurtosis |
|----------------------------------|-------|------|-----------------|----------|----------|
| <b>PANAS</b>                     |       |      |                 |          |          |
| Positive affection               | 33.56 | 6.26 | 17–50           | 0.113    | 0.369    |
| Negative affection               | 24.16 | 9.74 | 10–50           | 0.648    | –0.165   |
| <b>PCL-R (two-factor model)</b>  |       |      |                 |          |          |
| Total score                      | 10.30 | 6.66 | 0–25            | 0.501    | –0.730   |
| Interpersonal–affective          | 4.05  | 3.59 | 0–14            | 0.337    | –0.389   |
| Antisocial–impulsive             | 5.51  | 3.41 | 0–13            | –0.011   | –0.416   |
| <b>PCL-R (four-factor model)</b> |       |      |                 |          |          |
| Interpersonal                    | 1.89  | 2.23 | 0–8             | 0.938    | –0.296   |
| Affective                        | 2.33  | 2.27 | 0–8             | 1.064    | 0.413    |
| Lifestyle                        | 3.51  | 2.35 | 0–8             | 0.212    | –0.999   |
| Antisocial                       | 1.57  | 1.68 | 0–7             | 1.468    | 2.155    |
| <b>LSRP</b>                      |       |      |                 |          |          |
| Primary psychopathy              | 37.16 | 7.53 | 24–57           | 0.337    | –0.389   |
| Secondary psychopathy            | 24.48 | 5.78 | 12–36           | –0.011   | –0.416   |

Note. PANAS = Positive and Negative Affect Scale; PCL-R = Psychopathy Checklist–Revised; LSRP = Levenson’s Self-Report Psychopathy Scale.

**Table 3.** Correlations Between PCL-R Scores and LSRP Scores ( $N = 63$ ).

| PCL-R scores                   | Primary psychopathy<br>LSRP-F1 | Secondary psychopathy<br>LSRP-F2 |
|--------------------------------|--------------------------------|----------------------------------|
| <b>PCL-R two-factor model</b>  |                                |                                  |
| Interpersonal–affective        | .054                           | .087                             |
| Antisocial–impulsive           | .098                           | .275*                            |
| <b>PCL-R four-factor model</b> |                                |                                  |
| Interpersonal                  | .176                           | .228                             |
| Affective                      | .073                           | .013                             |
| Lifestyle                      | .040                           | .230                             |
| Antisocial                     | .111                           | .276*                            |

Note. PCL-R = Psychopathy Checklist–Revised; LSRP = Levenson’s Self-Report Psychopathy Scale.

\* $p < .05$ .

### Correlations Between PCL-R Scores and LSRP-P Scores

Correlations between PCL-R scores and LSRP-P scores are presented in Table 3. Results only revealed a positive statistically significant correlation between antisocial–impulsive factor of PCL-R and secondary psychopathy (LSRP-F2),  $r = .275$ ,  $p = .029$ , and between antisocial facet (four-factor model) and secondary psychopathy,  $r = .276$ ,  $p = .028$ .

**Table 4.** Correlations Between Affection (PA and NA) and Psychopathy Scores (Total PCL-R and Subscales;  $N = 63$ ).

| PA/NA (PANAS)        | Interpersonal–affective | Antisocial–impulsive | PCL-R (total) |
|----------------------|-------------------------|----------------------|---------------|
| Interested           | -.066                   | -.094                | -.044         |
| Excited              | .078                    | .168                 | .152          |
| Pleasantly surprised | .028                    | -.072                | -.036         |
| Warmful              | .041                    | -.091                | .052          |
| Enthusiastic         | .010                    | -.037                | -.066         |
| Proud                | -.236                   | -.085                | -.189         |
| Enchanted            | .019                    | .097                 | -.007         |
| Inspired             | .151                    | .158                 | .152          |
| Determined           | .154                    | .076                 | .126          |
| Active               | -.175                   | -.229                | -.245         |
| PA (total)           | .044                    | .060                 | .027          |
| Disturbed            | .141                    | .115                 | .052          |
| Tormented            | .168                    | .120                 | .104          |
| Guilty               | -.258*                  | -.078                | -.145         |
| Scared               | .106                    | .052                 | .105          |
| Repulsion            | -.119                   | -.85                 | -.139         |
| Annoyed              | -.124                   | .025                 | -.093         |
| Remorse              | .094                    | .104                 | .119          |
| Nervous              | .041                    | .200                 | .077          |
| Tremulous            | -.046                   | -.043                | -.104         |
| Frightened           | -.020                   | -.046                | -.032         |
| NA (total)           | .017                    | .094                 | .016          |

Note. PA = positive affection; NA = negative affection; PANAS = Positive and Negative Affect Scale; PCL-R = Psychopathy Checklist–Revised.

\* $p < .05$ .

### Correlations Between Psychopathy (PCL-R Scores) and PA and NA

The correlations between PCL-R scores and PA and NA are presented in Table 4. Results showed no significant correlations between PCL-R scores and PA and NA.

However, a negative statistically significant correlation was found between PCL-R interpersonal–affective factor and the emotion “guilty,”  $r = -.258, p = .041$ . Thus, women scoring higher on PCL-R interpersonal–affective factor tend to show lower scores on “guilty” emotion.

Correlations between the PCL-R four-factor model and PA and NA were also analyzed and are presented in Table 5. Results showed no correlations between PCL-R facets and PA and NA. Nonetheless, a significant negative correlation was found between the PCL-R affective facet and the emotion “proud” ( $r = -.301, p = .016$ ), as well as between the PCL-R antisocial facet and the emotion “active” and ( $r = -.330, p = .008$ ). Thus, women scoring higher on affective facet tend to reveal lower

**Table 5.** Correlations Between the Scale of Affection (PA and NA) and the Four Psychopathy Facets ( $N = 63$ ).

| PA/NA (PANAS)        | Interpersonal | Affective | Lifestyle | Antisocial |
|----------------------|---------------|-----------|-----------|------------|
| Interested           | .040          | -.044     | -.128     | .025       |
| Excited              | .112          | .072      | .80       | .264*      |
| Pleasantly surprised | .041          | -.036     | -.066     | -.061      |
| Warmful              | .063          | .019      | .061      | .035       |
| Enthusiastic         | .057          | -.043     | -.119     | .063       |
| Proud                | -.069         | -.301*    | -.085     | -.017      |
| Enchanted            | -.015         | -.025     | .077      | .094       |
| Inspired             | .091          | .058      | .117      | .178       |
| Determined           | .157          | .118      | .046      | .002       |
| Active               | -.059         | -.190     | -.206     | -.330**    |
| PA (total)           | .135          | -.049     | .002      | .098       |
| Disturbed            | .012          | .192      | .017      | .047       |
| Tormented            | .080          | .192      | -.003     | .189       |
| Guilty               | -.170         | -.186     | -.122     | .068       |
| Scared               | -.117         | .164      | .021      | .153       |
| Repulsion            | -.164         | -.093     | -.062     | -.028      |
| Annoyed              | -.136         | -.123     | -.017     | .111       |
| Remorse              | .19           | .166      | -.006     | .139       |
| Nervous              | -.016         | .001      | .197      | .136       |
| Tremulous            | -.058         | -.037     | -.141     | .069       |
| Frightened           | -.129         | .64       | -.135     | .094       |
| NA (total)           | -.70          | .074      | .001      | .151       |

Note. PA = positive affection; NA = negative affection; PANAS = Positive and Negative Affect Scale.

\* $p < .05$ . \*\* $p < .01$ .

scores on “proud” emotion and women who had higher scores on PCL-R antisocial facet scored lower on “active” emotion. There was also a significant positive correlation between the PCL-R antisocial facet and the emotion “excited,”  $r = .264$ ,  $p = .036$ . Therefore, women with high scores in antisocial facet were more likely to report higher scores on the emotion “excited.”

### Correlations Between Primary and Secondary Psychopathy and PA and NA

The correlations between primary and secondary psychopathy and PA and NA are shown in Table 6. Results revealed a positive significant correlation between primary psychopathy and PA,  $r = .346$ ,  $p = .005$ , and between secondary psychopathy and NA,  $r = .581$ ,  $p = .000$ . Moreover, significant positive correlations were found between primary psychopathy and the positive emotions “excited” ( $r = .496$ ,  $p = .000$ ) and “proud” ( $r = .257$ ,  $p = .042$ ) and between secondary psychopathy and the

**Table 6.** Correlations Between the Scale of Affection (PA and NA) and the Psychopathy Factors F1 (Primary Psychopathy) and F2 (Secondary Psychopathy; *N* = 63).

| PA/NA (PANAS)        | Primary psychopathy (LSRP) | Secondary psychopathy (LSRP) |
|----------------------|----------------------------|------------------------------|
| Interested           | -.056                      | -.003                        |
| Excited              | .496**                     | .363**                       |
| Pleasantly surprised | .219                       | .147                         |
| Warmful              | -.012                      | .202                         |
| Enthusiastic         | .148                       | .139                         |
| Proud                | .257*                      | .141                         |
| Enchanted            | .241                       | -.007                        |
| Inspired             | .209                       | -.018                        |
| Determined           | .179                       | .129                         |
| Active               | -.016                      | -.203                        |
| PA (total)           | .346**                     | .168                         |
| Disturbed            | -.006                      | .351**                       |
| Tormented            | .265*                      | .456**                       |
| Guilty               | .139                       | .321*                        |
| Scared               | .048                       | .155                         |
| Repulsion            | .338**                     | .488**                       |
| Annoyed              | .253*                      | .594*                        |
| Remorse              | .184                       | .310*                        |
| Nervous              | .158                       | .550**                       |
| Tremulous            | .216                       | .446**                       |
| Frightened           | -.015                      | .130                         |
| NA (total)           | .247                       | .581*                        |

Note. PA = positive affection; NA = negative affection; PANAS = Positive and Negative Affect Scale; LSRP = Levenson’s Self-Report Psychopathy Scale.

\**p* < .05. \*\**p* < .01.

emotion “excited” (*r* = .363, *p* = .003). Thus, women who scored higher on primary psychopathy had high scores on the emotions “proud” and “excited”; those who reveal higher on secondary psychopathy tend to present higher scores on the emotion “excited.”

Moreover, primary psychopathy revealed statistically significant positive relations with the negative emotions “tormented” (*r* = .265, *p* = .036), “repulsion” (*r* = .338, *p* = .007), and “annoyed” (*r* = .253, *p* = .046). Hence, women who scored higher on primary psychopathy tend to disclose higher scores on the negative emotions “tormented,” “repulsion,” and “annoyed.” Secondary psychopathy seems to be strongly related to the dominance of negative emotions.

## Discussion

The present study intended to analyze positive and negative emotions experienced by female offenders, as well as to understand its correlation with psychopathic traits.

It was designed to extend previous research on the relationship between emotions and psychopathy in female prisoners.

The results of this study point out to low levels of psychopathic traits among female offenders. These results are in accordance with previous literature that concluded that, in general, women tend to reveal lower psychopathy scores than men (Coid et al., 2009; Salekin et al., 1997; Vitale et al., 2002; Vitale & Newman, 2001; Weizmann-Henelius et al., 2004) and that the prevalence of psychopathy among incarcerated women is much lower than among imprisoned men (Vitale & Newman, 2001). However, it should be noted that the prevalence of female offenders with psychopathic traits in our sample is even lower than what has previously been reported in research with incarcerated women—in our sample, none of the women scored above 30 on the PCL-R (e.g., Jackson et al., 2002; Verona & Vitale, 2018), which may reflect some cultural specificities. In fact, Cooke and Michie (1999) suggested that some cultural processes, such as differences in the criminal justice system or differences in the cultural norms regarding talking about one's abilities, may inhibit or suppress the expression of psychopathic traits and, therefore, PCL-R scores are not equivalent across cultures (Cooke et al., 2005). Even so, this result is not completely surprising because other researchers were also unable to use the traditional cutoff scores of the PCL-R because none of their participants scored above 30 (Rutherford et al., 1996). Our results seem to support the hypothesis that there may be differences in the number of men and women classified as psychopathic using the traditional PCL-R cut score of 30 (Vitale & Newman, 2001). This may be due to differences in the way males and females express psychopathic traits (Hare, 1991). Factors, such as gender-role socialization and biological sex differences might result in differential expressions of psychopathy among men and women (e.g., Logan, 2004). Thus, it should be discussed whether measures that evaluate psychopathy should change when it comes to female participants (Nicholls & Petrila, 2005). It is possible that PCL-R does not identify characteristics essential for psychopathy in women, and may fail to classify certain women with psychopathy disorders (Vitale & Newman, 2001).

The results from the current study also highlighted that women revealed scores above average on primary (LSRP-F1) and secondary (LSRP-F2) psychopathy (Levenson et al., 1995). Such tendency was, however, expected due to the inmates' low scores on PCL-R, the characteristics of our sample (i.e., forensic) and the nonforensic nature of LSRP. On one hand, if LSRP and PCL-R evaluate the same construct (i.e., psychopathy), it is expected that the individuals' scores follow the same pattern. On the other hand, because LSRP was primarily developed to nonforensic populations, institutionalized individuals might interpret the questions in a quite different manner than noninstitutionalized ones, and forensic and nonforensic individuals may also differ with respect to their psychopathic characteristics (e.g., Snowden & Gray, 2011). Results also revealed that there are no correlations between LSRP-F1 and PCL-R's interpersonal-affective factor. This result is, however, in accordance with previous studies revealing that LSRP-F1 demonstrates stronger associations with measures of secondary psychopathy (e.g., impulsive, antisocial aspects) than with measures of primary psychopathy (Lilienfeld & Fowler, 2006).

In the present study, there were no significant associations between PA and NA and psychopathic traits. This absence of results may be related either to the nature of the instrument used to assess affection (i.e., self-report) or to the low variation of PCL-R scores, that is, PCL-R scores are generally low and only a small percentage of women present psychopathic traits. Nonetheless, women scoring higher on interpersonal–affective factor tended to show less guilt, which is congruent with the definition of psychopath—an individual who shows absence of remorse, guilt, or empathy (Hare, 1993). On the other hand, it was also possible to identify negative correlations between the affective facet and the emotion “proud,” as well as between the antisocial facet and the emotion “active.” Again, these results may be supported by the emotional processing deficits exhibited by individuals with psychopathic traits (e.g., Del Gaizo & Falkenbach, 2008; Skeem et al., 2007; Widiger, 2006). Pride is conceptualized as a self-conscious emotion that signals the accomplishment of a valued task to other members of a group (e.g., Tracy & Robins, 2007). Recent studies revealed that prideful psychopaths who are successful leaders may strike an effective balance of bold interpersonal impact and intermittent prosocial behavior (Costello et al., 2018). Psychopathic individuals imbued with pride may wish to maintain a conception of themselves as good and competent people. Because pride is considered a potential protective factor among individuals predisposed to psychopathy (Costello et al., 2018), antisocial individuals with affective deficits (i.e., lack of empathy, guilt, or remorse) and, as a consequence, more self-oriented, might be less prone to experience pride (as well as guilt—a moral emotion). Moreover, in the present study, secondary psychopathy was positively correlated with NA; women with higher levels of secondary psychopathy tended to experience more negative affect. Thus, secondary psychopaths probably tend to express and experience more negative emotions, such as “annoyed,” “repulse,” and “nervous.” It should also be noted that, the total of PA and the emotions “excited” and “proud” were positively related to primary psychopathy, which is not a surprising result, as primary psychopaths act intentionally to maximize their gains and excitement (Skeem et al., 2003). Positive associations were also found between the negative emotions “tormented,” “repulse,” “annoyed,” and primary psychopathy, but this result was an unexpected result once primary psychopaths are intelligent and confident individuals, with strong social abilities and low levels of anxiety (e.g., Lee & Salekin, 2010; Sandvick et al., 2015; Swogger & Kosson, 2007; Vassileva et al., 2005; Widiger, 2006). However, these emotions may be related to the damaging effect of being incarcerated and the adaptation to the prison context, because we are referring to maladaptive prisoners, with a lifestyle “focused inside the prison” (Butler & Kariminia, 2006; Zamble, 1992).

Results from this study, as other research, highlight the need for a prevention strategy that allows an early identification of individuals with psychopathic traits (Coid & Yang, 2011), allowing a targeted and efficient intervention, instead of focusing only on a punitive approach. In fact, adult psychopaths may be more difficult to treat, or at least require more resources to treat and larger treatment doses to achieve sufficient changes in violent behavior. The majority of studies of violence have examined psychopathy as a moderator of violent outcomes in convicted offender populations. These studies depict a generally consistent pattern, suggesting that psychopathy

moderates treatment outcomes predicting treatment dropout and violent recidivism with sexual and/or general violence. Many theorists assume that poor processing of emotions, a crucial process during early development, is the major deficit in psychopathy that disrupts “normal” socialization (Blair, 2003). Evidence of empirical evidence suggests the same psychopathic characteristics in children and adolescents, namely, manifestations of insensitive traits and lack of emotion (Frick, 2007), reflecting deficits in empathy and affective processing (Blair, 2006). Thus, it becomes important to know the emotional process in psychopathy in a deeper way, identifying precursors of early psychopathic traits, where intervention and prevention can be implemented more effectively.

Despite the contributions of the present study, some limitations should be considered when interpreting the results. First, our sample size was small and nonrepresentative and, as a consequence, presents a reduced statistical strength, which may justify the absence of significant results in some aspects. As a matter of fact, the statistic tests that were used represent a statistical strength lower than 80%. Nevertheless, it should be stressed that the present study does not have the pretension of generalizing results, as the female prisoners who participated in it are all from the same prison facility, and that raises obstacles to what concerns results’ generalization and representativeness of the phenomenon. A larger and a more representative sample is recommended to allow a better understanding of the constructs under research.

Second, some variables, such as affection and psychopathy, were assessed through self-report measures. Although the self-report measures are practical and allow a rapid assessment without the appraiser’s judgment, it presents some disadvantages, especially in the psychopathic (Lilienfeld & Fowler, 2006) and forensic populations. Self-report questionnaires might be affected by social desirability, insincerity, and dissimulation in which psychopaths are eximious (Hare et al., 1989). Psychopaths are notorious for their deceitfulness, and it is conceivable that impression management biases may undermine the veracity of the responses they give. Lilienfeld and Fowler (2006) also stressed that psychopaths often lack insight about their own personal and psychological problems, and in addition, exhibit a “semantic aphasia”; that is, “it may be inherently problematic to ask individuals who have never experienced an emotion (or who have experienced only weak variants of this emotion) to report on its absence” (p. 110). If the psychopath is not able to feel emotions, he might not be able to self-report accurately the interpersonal components of psychopathy (Snowden & Gray, 2011). These issues may help us better understand the absence of significant associations between affection and psychopathic traits. Because psychopaths are less sensitive to emotional expression and base themselves on the literal meaning of words (e.g., Kosson et al., 2002; Levenston et al., 2000; Lorenz & Newman, 2002; Vitale, 2011), they may have difficulties or may even be unable to interpret PANAS items. Some studies found that psychopaths are unable to feel emotions and demonstrate particular difficulty in recognizing feelings of fear, guilt, or anxiety (Costello et al., 2018; Gillespie et al., 2015) that might be associated with a delayed processing and emotional reactivity to unpleasant stimuli and threats (e.g., Lorenz & Newman, 2002). Therefore, in future investigations, it is essential to assess whether this population is



effectively unable of processing/identifying emotions or experience a delay in emotional processing (e.g., slow response). Not having a deep understanding of their emotions suggests that psychopaths can experience only pseudo-emotions (Steuerwald & Kosson, 2000), endangering a reliable assessment to actual emotions/affectations. As a future recommendation, due to the subjectivity of PANAS and the incapacity to have real access to the emotions experienced by this population using a self-report questionnaire, it would be useful to substitute that questionnaire by a semistructured interview.

In sum, there is a consensus that abnormalities in the processing of emotions are characteristic of the psychopathic man. However, less is known about the emotional processing characteristics of female psychopaths. Thus, the results of this study are relevant as they help to determine in more detail the positive/negative affect associated with primary and secondary psychopathy in psychopathic women, the motivation associated with the identification of the experienced affectations, using evaluation instruments adjusted for this population (e.g., avoiding self-report instruments, choosing an instrument that evaluates psychopathy in women more reliably).

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