Article

Five-Factor Model of Personality and Sexual Aggression

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Abstract

Despite several studies have used the five-factor model (FFM) of personality as theoretical background, few studies have been conducted on the topic of the FFM and sexual aggression. This study explored how the big five dimensions and features of emotional adjustment characterize different forms of sexual violence. Twenty-six male students reporting sexual aggression against women (nonconvicted offenders), 32 convicted rapists, and 33 convicted child sexual molesters were evaluated. Participants completed the Five-Factor Inventory (NEO-FFI), the Brief Symptom Inventory (assessing state emotional adjustment), the Sexual Experiences Survey (perpetration form), and the Socially Desirable Response Set Measure. Results showed that individuals convicted for rape and child sexual abuse presented significantly more neuroticism than nonconvicted sexual offenders; child sex molesters presented significantly less openness than rapists and nonconvicted sexual offenders; and nonconvicted sexual offenders presented significantly less conscientiousness than convicted offenders. Regarding emotional adjustment, convicted rapists revealed marked psychopathological features in relation to child molesters. In addition, convicted rapists and nonconvicted sexual offenders presented significantly more hostility than child sexual molesters. Findings suggested that some of the big five traits as well as state features characterizing emotional adjustment may characterize different types of sexual offenders.

Keywords

personality traits, five-factor model, psychopathology, sexual aggression

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Personality traits are believed to be involved in the aetiology and maintenance of sexual violence. Such traits are known as stable dynamic factors (i.e., aggressor's persistent psychosocial characteristics) and play a major role in the risk assessment of sexual offenders (cf. Craig, Thornton, Beech, & Browne, 2007; Hanson & Harris, 2000). Despite specific personality profiles have been related to both convicted and nonconvicted (or nondocumented) sexual offenders, sex offenders are considered a highly heterogeneous population in terms of personality features (e.g., Levin & Stava, 1987; Kalichman, Szymanowski, McKee, Taylor, & Craig, 1989, Tomak, Weschler, Ghahramanlou-Holloway, Virden, & Nademin, 2009). Furthermore, sexual crimes are underreported and only a percentage of sex offenders receive a conviction (Calhoun, McCauley, & Crawford, 2006; Koss, 1992). Therefore, most of the sex offenders who underwent a forensic evaluation are possibly fairly representative of individuals committing sex crimes. Convicted sex offenders are thus believed to differ from those who are not apprehended (cf. Malamuth, 1984, 1988).

Studies on Documented/Convicted Sex Offenders

In relation to child sexual molesters, Cohen and colleagues (2002) compared 20 men with a *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM-IV*; American Psychiatric Association, 1994) diagnosis of pedophilia (heterosexual type) recruited from an outpatient facility for sexual offenders with 24 demographically similar control individuals and found that pedophiles presented severe personality impairment in relation to the healthy control group. Namely, pedophiles presented marked schizoid, schizotypal, histrionic, paranoid, borderline, avoidant, antisocial, passive-aggressive, and self-defeating features. A comparison between 10 incestuous (randomly selected from 52 case records of the Colorado Department of Social Services) and 12 nonincestuous fathers showed that incestuous offenders presented significantly higher scores on the Pd (Psychopathic Deviate), Pt (Psychasthenia), and Sc (Schizophrenia) clinical scales from the Minnesota Multiphasic Personality Inventory (MMPI; Kirkland & Bauer, 1982). In a sample of 70 child sexual molesters recruited from an educational training program and a Belgian prison, individuals presenting paraphilic interests (i.e., sexual attraction directed toward children) were also characterized by personality disorders (namely, from the obsessive-compulsive spectrum) in relation to child molesters without paraphilia (Bogaerts, Daalder, Vanheule, Desmet, & Leeuw, 2008). Another study conducted with 30 Internet child sexual molesters (completing mandatory 3-year rehabilitation orders) showed that offenders differed from a community sample in terms of dominance, depression, and warmth, possibly presenting impaired social skills and affective difficulties (Laulik, Allam, & Sheridan, 2007).

Several studies have focused on the differences between convicted child sex molesters and rapists. Comparisons between both types of incarcerated sexual offenders showed that child sexual molesters were more neurotic, socially impaired, and dependent than rapists (Ahlmeyer, Kleinsasser, Stoner, & Retzlaff, 2003). In

addition, a sample of incarcerated child sex molesters presented more affective and thought disturbances than a sample of incarcerated sexual offenders against adult victims (Kalichman, 1991). Findings on recently convicted violent offenders (201 child molesters, 195 rapists, and 205 violent but nonsexually aggressive subjects) showed that child sexual molesters were also characterized by anxiety, dysthymia, and passive-aggressive features in relation to rapists and violent/nonsexual offenders (Chantry & Craig, 1994). Francia and colleagues (2010) reported that convicted rapists ($n = 251$) presented higher levels on antisocial personality traits and lower levels of avoidant personality traits than convicted child sex molesters ($n = 311$). Rapists (43 sex offenders charged with the rapes of females aged 16 and older) were also found to present higher levels of negativism, verbal and indirect hostility, aggression, and assault than child sexual molesters (a convicted group of 45 incest and nonincest offenders; Shechory & Ben-David, 2005). In general, rapists are frequently described as more assertive than child molesters, and the latter are usually found to present marked interpersonal difficulties (Hudson & Ward, 1997). In the same vein of research, Tomak and colleagues (2009) compared Internet sex offenders (48 males convicted of an Internet crime and referred for a psychosexual risk assessment) and general sex offenders (104 incarcerated, non-Internet, child molesters and rapists). The authors found that Internet sex offenders presented significantly lower scores on the L (Lie), F (Infrequency), Pd (Psychopathic Deviate), and Sc (Schizophrenia) from the MMPI.

Furthermore, studies evaluating sex offenders and nonsexual offenders have consistently shown differences between these classes of criminals. For example, in a study conducted by Ahlmeyer and colleagues (2003), sexual offenders (both incarcerated rapists and child sex molesters) were characterized by schizoid, avoidant, depressive, and dependent personality traits, whereas men convicted for nonsexual crimes presented more antisocial, narcissist, and sadistic personality traits. Fazel, Hope, O'Donnell, and Jacoby (2002) evaluated 101 sex offenders and 102 nonsex offenders (both groups of elderly—above age 59—incarcerated offenders) and have also found that sexual offenders were more likely to be characterized by schizoid, avoidant, and obsessive-compulsive traits, as well as less antisocial features than nonsexual offenders. Similarly, Francia and colleagues (2010) reported that both groups of sexual offenders (incarcerated rapists and child sex molesters) presented marked depressive personality features in relation to a nonsexual offender group. In another study conducted by Gudjonsson and Sigurdsson (2000) with prison inmates, the authors found that child molesters and rapists were considerably more introverted than nonsexual violent offenders. Moreover, in a comparison between sex offenders (individuals convicted of rape, attempted rape, and indecent assault) and nonsexual violent offenders (individuals convicted of murder, assault, wounding, etc.), sex offenders presented significantly less hostility, depression, tension, psychopathy, impulsivity, and aggression than violent offenders (Craig, Browne, Beech, & Stringer, 2006). However, Chantry and Craig (1994) reported that recently convicted rapists presented higher levels of passive-aggressive features than violent/nonsexual offenders.

Overall, psychopathology and dysfunctional personality traits may affect sex offenders' behavior and adjustment. For example, sex offenders presenting high levels of neuroticism are believed to make poor adjustments to prison and to present high rates of recidivism as well as poor cognitive skills (Listwan, Sperber, Spruance, & Voorhis, 2004). In addition, sexual offenders (both rapists and child sex molesters serving a sentence) presenting an anxious profile were less likely to use efficient strategies to cope with stress and deviant sexual fantasies (Lussier, Proulx, & McKibben, 2001). Personality dimensions have been thus associated with the therapeutic compliance of sexual offenders (Miner & Dwyer, 1995) as well as to recidivism rates (e.g., Boccaccini, Murrie, Hawes, Simpler, & Johnson, 2010; Listwan et al., 2004; Listwan, Voorhis, & Ritchey, 2007).

Studies on Nondocumented/Nonconvicted Sex Offenders

In relation to nondocumented/nonconvicted sexual offenders, only a few studies have focused on the personality profiles of individuals who committed some sort of sexual violence but did not receive a conviction. According to Malamuth, Addison, and Koss (2000), personality traits are particularly important as such core characteristics may be a key moderator in the relationship between sexually explicit stimuli and sexual aggression. Psychoticism, neuroticism, or likelihood of committing sexual assault was found to be significantly related to self-reported sexual arousal to rape depictions among male college students (Malamuth & Check, 1983). In addition, psychoticism predicted both self-reported and genital arousal to rape-related stimulus in a sample of male college students (Barnes, Malamuth, & Check, 1984). The Confluence Model of Sexual Aggression (cf. Malamuth, Heavey, & Linz, 1996; Malamuth, Sockloskie, Koss, & Tanaka, 1991) considers that delinquency affects sexual aggression in male students through two paths: sexual promiscuity/impersonal sex and personality features related to hostile attitudes and hostile masculinity. Hostile masculinity is a personality feature characterized by the desire to be in control, to be dominating (mostly in relation to women), and it is also characterized by an insecure/defensive orientation toward women (Malamuth & Thornhill, 1994). A more recent study conducted by Martín, Vergeles, Acevedo, Sánchez, and Visa (2005) supported the confluence model. The authors found that the personal disposition to impersonal sex, the need to control and dominate, as well as the lack of empathy, predicted sexual coercion committed by male college students. In addition, hostile masculinity predicted men's frequency of misperception of women's sexual intentions, also in a sample of male students (Jacques-Tiura, Abbey, Parkhill, & Zawacki, 2007). In another study conducted with male college students reporting sexual violence against women, the authors found that the aggressors presented marked impulsiveness traits (motor/planning and cognitive impulsiveness) in relation to the control peers (Carvalho & Nobre, 2012). Despite nonconvicted sexual offenders are expected to be different from convicted sexual offenders, little evidence exists on the personality and psychopathological profile of nonconvicted (and nondocumented) sexual aggressors.

The Five-Factor Model (FFM) of Personality and Sexual Aggression

Most of the studies on the relationship between personality traits and sexual aggression were not based on a structured and empirically validated model of personality. The FFM of personality (Costa & McCrae, 1992) organizes personality traits into a comprehensible system aimed at guiding research in the field of personality. The FFM is a descriptive model of personality that identifies the major traits of personality according to the verbal terms that people generally use to describe themselves and the others. This model organizes the personality traits into a hierarchical structure comprising five main factors known as the big five: "neuroticism," "extroversion," "openness," "conscientiousness," and "agreeableness" (Costa & Widiger, 2002). Studies conducted on the FFM have consistently confirmed its empirical value (e.g., Costa & McCrae, 1985; Digman, 1990; McCrae & Costa, 1990; Peabody & Goldberg, 1989). In addition, findings showed that personality disorders (*DSM-IV*) can be conceptualized using the FFM of personality. Each disorder presents a FFM-specific profile (cf. Saulsman & Page, 2004).

Despite the wide literature on the relationship between the big five traits and several features of human behavior, the FFM was less used in the field of sexuality or sexual aggression. Studies on male sexual dysfunction (Quinta-Gomes & Nobre, 2011), hypersexuality (Reid, Carpenter, Spackman, & Willes, 2008; Reid, Stein, & Carpenter, 2011), sexual attitudes (Heaven, Fitzpatrick, Craig, Kelly, & Sebar, 2000), sexual satisfaction (Donnellan, Conger, & Bryant, 2004), or casual sex (Gute & Eshbaugh, 2008) suggested that some of the big five traits are related to how people sexually behave. In relation to sexual offenders, Dennison, Stough, and Birgden (2001) evaluated a sample of incarcerated child sex molesters according to the FFM personality traits. Child molesters were divided into subgroups (incest within the family, incest within stepfamily, and extrafamilial) and were compared with nonoffenders (men from the general population). Findings showed that child sexual molesters presented significantly more neuroticism, and significantly lower extroversion and conscientiousness than nonoffenders. Offenders were found to be considerably heterogeneous. According to Dennison et al., the variation on normal personality traits may give some insight into the nature of child sexual abuse. Madsen, Parsons, and Grubin (2006) assessed the relationship between the FFM and *DSM-IV* personality disorders in child sex molesters attending treatment programs (at a probation service or treatment facility). Neuroticism and agreeableness were strongly related to personality disorders among this class of offenders. In particular, child sex molesters presenting personality disorder reported higher levels of anger-hostility, impulsivity, and vulnerability (within neuroticism), as well as lower levels of trust, straightforwardness, and compliance (within agreeableness) than child molesters without personality disorder. In the same vein of research, Lehne (1994) assessed the association between personality disorders and the FFM dimensions in a sample of rapists. Results showed that personality disorders were associated with neuroticism, extraversion, and

agreeableness. Pardue and Arrigo (2008) analyzed the personality profile of three convicted sexual offenders: the power-reassurance offender (characterized by using minimal force against his victims; the aggression is aimed at confirming his masculinity), the anger-retaliatory offender (the aggression is usually triggered by emotional events; significant violence is used), and the sadistic offender (sexual arousal is elicited by the psychological and physical suffering of the victim; cf. Knight & Prentky, 2001; Pardue & Arrigo, 2008). Pardue and Arrigo stated that the power-reassurance offender was characterized by moderate/high levels of agreeableness (the offender is perceived as kind), conscientiousness (the offender has a successful career, carefully organizes his daily routine), openness (presents average intellectual capability), and extroversion (participates in several social activities); the anger-retaliatory offender presented the highest levels of extroversion, high openness (excellent in scholar context), high conscientiousness, and low agreeableness (verbally abusive with family and friends); the sadistic offender presented low extroversion (lonely, socially alienated), low agreeableness, low conscientiousness, but high openness (open to new experiences). More recently, a study conducted by Voller and Long (2010) with a sample of male college students showed that rape perpetrators (i.e., male college students who attempted or committed vaginal or anal intercourse, oral-genital contact, or object penetration by the use of force or drugs) endorsed lower levels of agreeableness, extroversion, and conscientiousness than nonperpetrators.

The FFM is a well-documented model of normal/nonpathological traits of personality. Data on normal traits of personality and emotional adjustment could add information on the offenders' behaviors (both criminal and noncriminal behaviors) and affective states, contributing to the offenders' psychosocial rehabilitation and risk management. In addition, most of the studies conducted in the field of personality traits, psychological adjustment, and sexual aggression has usually focused on convicted rather than nonconvicted/nondocumented sexual offenders. Therefore, the aim of this preliminary study was to explore the relationship between the big five traits, emotional/psychological adjustment, and sexual aggression, comparing a sample of nonconvicted/nondocumented sexual offenders (male students), a sample of convicted rapists, and a sample of convicted child sex molesters (sociodemographics were introduced as covariates to control for their effects on the dependent variables). Portuguese samples of sex offenders were used allowing to extend analysis cross-culturally (very few studies have used offenders recruited in Portugal). Furthermore, because Axis I disorders may affect the assessment of personality traits (e.g., Madsen et al., 2006), only individuals without a history of a clinical diagnosis were selected for this study. Due to the lack of a well-founded theoretical background on the differences between nonconvicted/nonincarcerated and incarcerated sex offenders, we consider that this study has an exploratory/preliminary nature. Nevertheless, and in light of prior literature, we expected that the traits of neuroticism, extroversion, or agreeableness, as well as the psychopathological dimensions of depression, anxiety, and hostility would be involved in the offenders' personality profile.

Method

Participants and Procedures

Thirty-two men convicted for rape, 33 men convicted for child sexual abuse, and 37 men (male students) reporting sexual violence against women participated in the study. Convicted sex offenders were recruited from seven Portuguese prisons. Data were collected between November 2009 and May 2010. Because psychiatric disorders may affect the assessment of personality features, we limited our samples to individuals without a history of clinical diagnosis (forensic reports were consulted to check for the presence/absence of psychiatric diagnosis). Due to the small number of individuals presenting no history of psychiatric disorder, the recruitment of convicted rapists and child molesters took place in more than one prison. Ethical approval was given by the ethics committee of Direcção Geral dos Serviços Prisionais in Portugal. Participants gave written informed consent and answered the questionnaires in private rooms (the participant response rate was 87%). Participants answered the questionnaires individually, under supervision, and with the help of the principal investigator.

Male students were recruited from a Portuguese university after the study was publicized in classrooms. Data were collected between October 2009 and May 2010, and the participant response rate was 40%. Volunteers answered questionnaires individually and anonymously. Participants gave written informed consent and were not paid for participation. About 108 students, among whom 37 reported some kind of sexual abuse in the past year, participated in the study. More precisely, of the 37 men who reported sexually assaultive behavior, 91.9% reported to (a) have fondled, kissed, or rubbed up against the private areas of someone's body, or to have removed some of their clothes without consent; (b) 45.9% performed oral sex on someone or had someone performing oral sex on them without consent; (c) 43.2% reported to have introduced their penises, fingers, or objects into a woman's vagina without consent; (d) 35.1% reported to have introduced their penises, fingers, or objects into someone's anus without consent; (e) 43.2% tried to have oral sex with someone or force someone to have oral sex with them without consent; (f) 43.2% tried to put their penises, fingers, or objects into a woman's vagina without consent; and (g) 35.1% tried to put their penises, fingers, or objects into someone's anus without consent. These behaviors were performed against women. Among these 37 men, we selected those ($n = 26$) who reported more severe forms of sexual violence (Items 2-7). The frequency of sexually abusive behaviors did not show a significant relationship with the scores on social desirability ($r = -.09$, $p = .310$). In addition, participants completed a checklist of past and present psychiatric disorders (e.g., major depression, obsessive-compulsive disorder, borderline personality disorder, drugs/alcohol addiction). Among the participants reporting sexual violence against women, none presented psychiatric illness. Participants were not paid. Participants' sociodemographics are presented in Table 1.

Table 1. Sociodemographic Characteristics.

	Nonconvicted sexual offenders ($n = 26$)	Convicted rapists ($n = 32$)	Convicted child sex molesters ($n = 33$)
Age, $F(2, 84) = 25.562$***			
M (SD)	22.73$_a$ (4.86)	33.87$_b$ (9.33)	38.51$_c$ (9.60)
Range	18-43	20-58	22-58
Marital status, $\chi^2 = 24.548$; $df = 8$**			
Single (%)	96	64.5	32.1
Married (%)	0	22.6	42.9
Divorced (%)	4	9.7	17.9
Widowed (%)	0	3.2	3.6
Living together (%)	0	0	3.6
School education, $F(2, 84) = 82.801$***			
M (SD)	13.26$_a$ (2.10)	6.81$_b$ (2.36)	6.10$_b$ (2.28)
Range	9-15	4-12	4-12

Note: Means marked with different subscript letters are significantly different from each other.
** $p < .01$. *** $p < .001$.

Measures

Five-Factor Inventory (NEO-FFI). The NEO-FFI (Costa & McCrae, 1992) is a short version of the original NEO Personality Inventory–Revised (NEO-PI-R; Costa & McCrae, 1992). The NEO-FFI consists of 60 self-report items aimed at assessing the five general personality domains: neuroticism (dimension related to negative emotions, tendency to experience anxiety and depression, impulsiveness, or poor coping skills, characterizes easily upset people), extroversion (related to sociability, proactivity, and assertive behavior), openness (related to openness to new experiences and novelty, characterizing people with several interests, creative, and daring), agreeableness (related to kindness and trust showing, its opposite is related to oppositional and defiant behavior, rudeness, and stubbornness), and conscientiousness (related to moral reasoning, work capability, characterizing prudent, perseverant, and goal-oriented individuals). The questionnaire presents good psychometric proprieties: Cronbach's alpha of .86 to .95; test–retest reliability of .63 to .81 (Costa & McCrae, 1992). Confirmatory factor analysis using a Portuguese sample of community men and women replicated the original five-factor structure (Magalhães et al., 2013). Psychometric studies supported internal consistency: Cronbach's alpha of .69 (openness) to .81 (conscientiousness; Magalhães et al., 2013). In the present study, scores ranged as follows: nonconvicted sexual offenders—neuroticism 10 to 41 ($M = 22.57$, $SD = 6.96$), extroversion 16 to 42 ($M = 28.11$, $SD = 6.07$), agreeableness 20 to 39 ($M = 28.66$, $SD = 4.58$), openness 21 to 33 ($M = 26.62$, $SD = 3.35$), and conscientiousness 18 to 44 ($M = 27.04$, $SD = 6.85$); convicted rapists—neuroticism 6 to 44 ($M = 26.42$, $SD = 7.77$), extroversion 16 to 40 ($M = 27.30$, $SD = 5.71$), agreeableness 19 to 42 ($M = 30.60$, $SD = 6.47$), openness 16 to 42 ($M = 25.56$, $SD = 5.06$), and conscientiousness 20 to 47 ($M = 33.12$, $SD = 6.68$); convicted child sex molesters—neuroticism 10 to 43

(M = 26.46, SD = 7.46), extroversion 14 to 36 (M = 27.69, SD = 5.02), agreeableness 24 to 42 (M = 30.93, SD = 4.31), openness 11 to 30 (M = 22.44, SD = 5.30), and conscientiousness 25 to 43 (M = 35.37, SD = 5.41).

Brief Symptom Inventory (BSI). The BSI (Derogatis & Spencer, 1982) is a 53 self-report-item questionnaire aimed at assessing emotional adjustment (based on the presence of psychopathological features). This measure assesses nine dimensions: somatization, depression, hostility, phobic anxiety, anxiety, psychoticism, obsessive-compulsive, paranoid ideation, and interpersonal sensitivity. In contrast with the big five personality traits (assessed at a trait level), emotional adjustment was assessed at a state level. Participants were asked to provide the frequency of psychopathological symptoms over the previous month. The original version presented good psychometric proprieties: Cronbach's alpha ranged from .71 (psychoticism) to .85 (depression; Derogatis & Spencer, 1982). Psychometric studies conducted with a Portuguese sample of community men and women showed that the BSI is a valid measure of psychological adjustment: the Cronbach's alpha ranged from .62 (psychoticism) to .80 (somatization); test–retest reliability ranged from .63 (paranoid ideation) to .81 (depression). The measure discriminated emotionally instable individuals from controls (Canavarro, 1999). In the present study, scores ranged as follows: nonconvicted sexual offenders—somatization 7 to 27 (M = 13.78, SD = 5.52), depression 6 to 24 (M = 12.97, SD = 5.07), hostility 5 to 17 (M = 11.20, SD = 4.05), anxiety 6 to 20 (M = 11.51, SD = 4.24), phobic anxiety 5 to 19 (M = 9.86, SD = 4.58), psychoticism 5 to 18 (M = 10.49, SD = 4.40), paranoid ideation 5 to 18 (M = 11.67, SD = 3.96), obsessive-compulsive 7 to 22 (M = 13.93, SD = 3.97), and interpersonal sensitivity 4 to 15 (M = 8.59, SD = 3.36); convicted rapists—somatization 7 to 26 (M = 14.80, SD = 5.51), depression 7 to 28 (M = 14.93, SD = 5.14), hostility 5 to 21(M = 11.73, SD = 4.50), anxiety 7 to 25 (M = 14.53, SD = 4.96), phobic anxiety 5 to 21 (M = 9.92, SD = 4.28), psychoticism 5 to 22 (M = 12.02, SD = 3.91), paranoid ideation 5 to 21(M = 13.45, SD = 4.49), obsessive-compulsive 6 to 26 (M = 15.77, SD = 5.42), and interpersonal sensitivity 4 to 16 (M = 9.00, SD = 3.11); convicted child molesters—somatization 7 to 32 (M = 12.09, SD = 4.62), depression 6 to 28 (M = 11.70, SD = 5.52), hostility 5 to 21 (M = 9.01, SD = 3.85), anxiety 6 to 28 (M = 10.71, SD = 3.54), phobic anxiety 5 to 20 (M = 7.15, SD = 3.17), psychoticism 5 to 21 (M = 8.75, SD = 3.41), paranoid ideation 5 to 25 (M = 11.83, SD = 5.04), obsessive-compulsive 6 to 27(M = 11.51, SD = 3.89), and interpersonal sensitivity 4 to 19 (M = 7.68, SD = 3.65).

Sexual Experiences Survey (SES; Perpetration Form). The SES questionnaire (Koss et al., 2007) has seven self-response items assessing the frequency of sexually abusive behaviors (e.g., perform oral sex on someone or had someone performing oral sex without consent—see "Participants and Procedures" section). Participants are asked to mention the number the times each experience happened in the past. Answers range from "1 time" to "3/more times" (scores on the frequency of coerced sex were as follows: minimum score = 0, maximum score = 117, M = 7.70, SD = 21.5). The original version presented good psychometric proprieties: Cronbach's alpha = .89, and

test–retest reliability = .93 (Kolivas & Gross, 2007). The psychometric study conducted with Portuguese male college students showed acceptable psychometric proprieties: Cronbach's alpha = .86, and test–retest reliability = .70 (Carvalho, 2011).

Socially Desirable Response Set Measure (SDRS-5). This measure assesses participant's tendency to give socially desirable responses and can be used as a control variable in multivariate statistical analysis (SDRS-5; Hays, Hayashy, & Stewart, 1989). The scale contains 5 items (Cronbach's α = .68). Only the most extreme response is considered socially desirable (Hays et al., 1989). In the present study, scores were as follows: nonconvicted sexual offenders, $M = 0.16$, $SD = 0.23$ (range = 0-0.60); convicted rapists, $M = 0.34$, $SD = 0.32$ (range = 0-1.40); convicted child sex molesters, $M = 0.33$, $SD = 0.26$ (range = 0-0.80).

Results

Big Five Traits and Sexual Aggression

A MANCOVA was conducted to evaluate the effect of the group condition (Nonconvicted Sexual Offenders × Convicted Rapists × Convicted Child Sex Molesters) on the big five personality dimensions. Sociodemographics and social desirability were introduced as covariates to control for their effects on the dependent variables. Homogeneity tests supported the assumption of homogeneity of the variance–covariance matrices: Box's M, $p = .154$; Levene's test for neuroticism, $F = 1.26$, $p = .289$; extraversion, $F = 1.45$, $p = .239$; openness, $F = 0.69$, $p = .501$; agreeableness, $F = 2.75$, $p = .07$; and conscientiousness, $F = 1.53$, $p = .222$. After controlling for age, Wilks's Lambda = .844, $F(5, 70) = 2.580$, $p < .05$, partial $\eta^2 = .15$; marital status, Wilks's Lambda = .925, $F(5, 70) = 1.141$, $p = .347$, partial $\eta^2 = .07$; school education, Wilks's Lambda = .920, $F(5, 70) = 1.221$, $p = .309$, partial $\eta^2 = .08$; and social desirability, Wilks's Lambda = .821, $F(5, 70) = 3.062$, $p < .05$, partial $\eta^2 = .17$, a significant main effect of the group condition was found, Wilks's Lambda = .772, $F(10, 152) = 2.069$, $p < .05$, partial $\eta^2 = .12$. Post hoc tests showed that convicted rapists (Hedges's $g = 0.49$) and child sex molesters (Hedges's $g = 0.50$) presented significantly more neuroticism than nonconvicted offenders; child sex molesters presented significantly less openness than convicted rapists (Hedges's $g = 0.76$) and nonconvicted sexual offenders (Hedges's $g = 0.97$); nonconvicted sexual offenders presented significantly less conscientiousness than child sex molesters (Hedges's $g = 1.34$) and convicted rapists (Hedges's $g = 0.99$; see Table 2).

Emotional Adjustment and Sexual Aggression

A MANCOVA was conducted to evaluate the effect of the group condition (Nonconvicted Sexual Offenders × Convicted Rapists × Convicted Child Sex Molesters) on the emotional adjustment. Sociodemographics and social desirability were introduced as covariates to control for their effects on the dependent variables.

Table 2. FFM Personality Traits and Sexual Aggression.

	Nonconvicted sex offenders	Convicted rapists	Convicted child sex molesters	F(2, 74)	p	η^2
	M (SD)	M (SD)	M (SD)			
Neuroticism	20.68$_a$ (1.70)	27.04$_b$ (1.34)	27.58$_b$ (1.53)	4.602*	.013	.10
Extroversion	28.85 (1.32)	27.09 (1.04)	27.23 (1.19)	0.523	.595	.01
Openness	26.37$_a$ (1.11)	25.60$_a$ (0.87)	22.65$_b$ (0.99)	3.487*	.035	.08
Agreeableness	30.64 (1.14)	39.93 (0.90)	29.81 (1.03)	0.137	.872	.00
Conscientiousness	27.34$_a$ (1.83)	33.32$_b$ (1.18)	35.12$_b$ (1.38)	4.055*	.021	.10

Note: FFM = five-factor model. For each factor, means marked with different subscript letters are significantly different from each other.
*p < .05.

Homogeneity tests supported the assumption of homogeneity of the variance–covariance matrices: Box's M, $p = .076$; Levene's test for somatization, $F = 0.905$, $p = .409$; depression, $F = 0.214$, $p = .807$; hostility, $F = 0.103$, $p = .903$; anxiety, $F = 2.33$, $p = .103$; phobic anxiety, $F = 1.85$, $p = .164$; psychoticism, $F = 2.103$, $p = .129$; obsessive-compulsive, $F = 2.03$, $p = .138$; paranoid ideation, $F = 0.670$, $p = .515$; and interpersonal sensitivity, $F = 0.058$, $p = .943$. After controlling for age, Wilks's Lambda = .880, $F(9, 66) = 1.002$, $p = .448$, partial $\eta^2 = .12$; marital status, Wilks's Lambda = .906, $F(9, 66) = 0.763$, $p = .651$, partial $\eta^2 = .09$; school education, Wilks's Lambda = .855, $F(9, 66) = 1.247$, $p = .282$, partial $\eta^2 = .14$; and social desirability, Wilks's Lambda = .793, $F(9, 66) = 1.911$, $p < .06$, partial $\eta^2 = .20$, a significant main effect of the group condition was found, Wilks's Lambda = .640, $F(18, 132) = 1.834$, $p < .05$, partial $\eta^2 = .20$. Post hoc tests showed that convicted rapists presented significantly more depression (Hedges's $g = 0.47$), anxiety (Hedges's $g = 0.65$), phobic anxiety (Hedges's $g = 0.52$), psychoticism (Hedges's $g = 0.61$), and obsessive-compulsive features (Hedges's $g = 0.69$) than child sex molesters. In addition, convicted rapists (Hedges's $g = 0.55$) and nonconvicted sexual offenders (Hedges's $g = 0.44$) presented significantly more hostility than child sex molesters. No differences were found between convicted rapists and nonconvicted sexual offenders (see Table 3).

Discussion

This study explored the relationship between the big five traits (Costa & McCrae, 1992), features of emotional/psychological adjustment, and sexual aggression. Comparisons between nonconvicted sexual offenders (male students), convicted rapists, and convicted child sex molesters showed that both groups of convicted offenders presented significantly more neuroticism than nonconvicted sexual offenders, child sex molesters presented significantly less openness than convicted rapists and nonconvicted sexual offenders, and nonconvicted offenders presented significantly less conscientiousness than convicted rapists and child sexual molesters. Furthermore,

Table 3. Emotional Adjustment and Sexual Aggression.

	Nonconvicted sex offenders	Convicted rapists	Convicted child sex molesters			
	M (SD)	M (SD)	M (SD)	F(2, 74)	p	η^2
Somatization	13.18 (1.66)	15.05 (1.07)	12.39 (1.25)	1.835	.167	.05
Depression	13.57$_{a,b}$ (1.57)	14.65$_a$ (1.02)	11.46$_b$ (1.19)	2.703	.074	.07
Hostility	12.02$_a$ (1.15)	11.38$_a$ (0.74)	8.64$_b$ (0.87)	4.105*	.020	.10
Phobic anxiety	10.20$_{a,b}$ (1.28)	9.82$_a$ (0.83)	6.96$_b$ (0.96)	3.494*	.035	.09
Anxiety	11.50$_{a,b}$ (1.35)	14.57$_a$ (0.87)	10.70$_b$ (1.02)	5.982**	.004	.14
Psychoticism	11.46$_{a,b}$ (1.23)	11.58$_a$ (0.79)	8.35$_b$ (0.92)	4.650*	.013	.11
Obsessive-compulsive	13.22$_{a,b}$ (1.42)	15.93$_a$ (0.92)	12.02$_b$ (1.07)	5.334**	.007	.13
Paranoid ideation	12.72 (1.43)	13.13 (0.92)	11.21 (1.07)	1.186	.311	.03
Interpersonal sensitivity	8.88 (1.06)	8.89 (0.68)	7.55 (0.80)	1.080	.345	.03

Note: For each factor, means marked with different subscript letters are significantly different from each other.
*p < .05. **p < .01.

individuals convicted for rape presented significantly more underlying psychopathological features than individuals convicted for child sexual abuse and no significant differences were found between the psychological adjustment of convicted rapists and nonconvicted sexual offenders.

Data on the big five traits suggested that neuroticism, openness, and conscientiousness may characterize different types of sexual offenders. Neuroticism characterized convicted offenders (both rapists and child sex molesters) in relation to nonconvicted offenders. This trait has been associated with personality disorders in convicted rapists and child sex molesters (Lehne, 1994; Madsen et al., 2006). In another study conducted by Dennison et al. (2001), child sexual molesters presented more neuroticism in comparison with a nonoffender group. Neuroticism was also associated with poor adjustments to prison, high rates of recidivism, and reduced cognitive skills in incarcerated sex offenders (Listwan et al., 2004; Listwan et al., 2007). Although neuroticism has been systematically involved in the personality profile of convicted sex offenders, nonconvicted sexual offenders do not seem to be characterized by this personality trait. It could thus be speculated that neuroticism may affect the offender's style of assaulting, along with other contextual factors influencing the offender's modus operandi. However, this finding may also suggest that some of the features of neuroticism (e.g., predisposition to anxiety, depressive states, boredom, emotional instability, and poor coping skills) may be a consequence of incarceration. Regardless of the nature of these features, neuroticism encompasses most of the psychopathological features that have been formally recognized as dynamic risk factors for sexual aggression. Among these factors, negative affective states (Carvalho & Nobre, 2012; Proulx, Pellerin, McKibben, Aubut, & Quimet, 1999), deficient problem solving (Craig et al., 2007), or impulsiveness (Prentky & Knight, 1991) have been consistently associated with the vulnerability to sexual offending. Furthermore, stress, boredom, or anxiety were shown to enhance deviant sexual fantasies in sexual offenders (McKibben,

Proulx, & Lusignan, 1994; Swaffer, Hollin, Beech, Beckett, & Fisher, 2000). As a stable structure, neuroticism may be involved in the maintenance of dysfunctional emotional states, increasing the risk for sexual offending.

Child sexual molesters were also characterized by less openness in comparison with rapists and nonconvicted offenders. This finding departs from what has been found in relation to the FFM and child sexual abuse (namely, low extroversion, agreeableness, and conscientiousness that characterized child sex molesters in previous studies; cf. Dennison et al., 2001; Madsen et al., 2006). Although Dennison et al. found no significant differences between nonoffenders and child molesters on openness, they reported that nonoffenders presented more fantasy and openness to values (two of the six facets of openness) than child molesters. Openness is the FFM dimension representing an aesthetic sensitivity, search for variety, intellectual interest, and nondogmatic attitudes. Individuals with low openness present a strong opposition to novelty and may be less open-minded (Costa & McCrae, 1992). Therefore, the present findings suggest that child sex molesters may be less open-minded and more conformist than individuals with adult victims (regardless of being convicted or not).

In addition, nonconvicted sexual offenders presented lower levels of conscientiousness in comparison with convicted rapists and child sex molesters. In the study conducted by Voller and Long (2010) (low) conscientiousness was also among the FFM model dimensions characterizing rape perpetrators (i.e., male college students who attempted or committed vaginal or anal intercourse, oral-genital contact, or object penetration by the use of force or drugs) in relation to nonperpetrators. Conscientiousness may thus be a key factor characterizing nonconvicted/nondocumented sexual offenders. Low conscientiousness is described as a pattern of irresponsibility, negligence, lack of self-discipline, or difficulty in achieving goals (Costa & McCrae, 1992). In accordance with the Confluence Model of Sexual Aggression (cf. Malamuth et al., 1996; Malamuth et al., 1991), delinquency may affect sexual aggression in male students through sexual promiscuity/impersonal sex and hostile masculinity. Low levels of conscientiousness have been related to infidelity and promiscuity (Buss & Shackelford, 1997; Schmitt, 2004). Therefore, findings on nonconvicted sexual offenders suggest that conscientiousness may affect the relationship between impersonal sex, hostile masculinity, and sexual aggression among college students.

In relation to emotional adjustment, convicted rapists revealed marked psychopathological features. These individuals presented significantly more features of depression, anxiety, phobic anxiety, psychoticism, and obsessive/compulsion than child molesters. Differences between rapists and child molesters have been consistently reported in the literature (e.g., Carvalho & Nobre, 2012; Craissati & Beech, 2004; Porter et al., 2000). The current findings not only confirm previous data on rapists' and child molesters' distinct emotional profiles but also provide further evidence for the fact that rapists and child molesters require different therapeutic approaches, aimed at targeting their specific personality and emotional profile. Convicted rapists and nonconvicted sexual offenders also presented significantly more hostility than child molesters suggesting that anger and impulsiveness may strongly characterize offenders with adult victims, regardless of incarceration. Moreover, there were no

significant differences between convicted rapists and nonconvicted sexual offenders. Despite neuroticism (assessed as a stable personality trait) having characterized convicted rapists in relation to nonconvicted offenders, state features of emotional adjustment did not differentiate these groups. So, even though there are differences between these individuals (e.g., incarceration, cultural background), their emotional adjustment is apparently similar.

This study presents some limitations. First, the small sample size must be acknowledged. Despite Hedges's *g* supported medium to large effect sizes for the groups' comparisons (Hedges, 1981), we must recognize that this study has a preliminary nature and larger samples should be used. Also, even though sociodemographics were introduced as covariates, some of the differences found may be related to the social background characterizing each group of offenders. Therefore, future studies aimed at investigating the differences between convicted and nonconvicted sexual offenders should consider the matching of samples. In addition, the assessment of sexual violence in the community sample with a self-report questionnaire may not be completely accurate. Considering the present findings, personality traits as well as features of emotional adjustment may be related to sexual violence not only through a direct path but mostly through its impact on social skills or coping strategies. Future studies could address this relationship and also consider the inclusion of a nonsexual offender group.

Overall, the FFM personality traits of neuroticism, openness, and conscientiousness seemed to characterize different types of sexual offenders. More specifically, these traits were shown to characterize sex offenders without clinically relevant psychopathology. Therefore, while in some cases of sexual assault severe psychopathology may have been involved in the predisposition to sexual violence (thus masking the personality profile presented by psychologically disturbed offenders), the current findings suggest that neuroticism, openness, and conscientiousness may discriminate between convicted and nonconvicted sex offenders in the absence of psychiatric illness. Such findings may give some evidence on the personality factors influencing the offender's style of assaulting, which, together with other contextual factors (e.g., victim's features, cultural background), may determine the outcome of a sex crime (i.e., if the offender remains undetected or if he is prosecuted). As a well-documented model of personality, the FFM could be used as a frame to understand sexually aggressive individuals, guiding the risk assessment and the rehabilitation process of convicted and nonconvicted sexual offenders.

Declaration of Conflicting Interests

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