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MCMII-III Profiles of Convicted Contact Sexual Offenders: A Cluster Analysis

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ABSTRACT

As suggested by previous research, the study of personality traits among sexual offenders could be an important consideration in the understanding of sexual offending. This study aims to explore the possibility of classifying sexual offenders according to their personality profiles. Based on the MCMII-III scores of 97 convicted contact sexual offenders, a cluster hierarchical analysis was performed. Next, the groups were characterized according to their sociodemographic and criminological variables and significant differences between them were sought. The two clusters found did not show different MCMII-III prototypical personality profiles, and both groups only varied in the degree of general psychopathology. The results suggest the existence of two personality profiles labeled as “pathological” and “adapted/non-pathological”. The usefulness of the MCMII-III in the evaluation of sexual offenders seems limited to the detection of the presence or absence of general psychopathological symptoms. Implications of these findings for interventions are discussed.

KEYWORDS

Sexual offenders; sexual abuse; rape; MCMII-III; personality; cluster analysis

Introduction

Sexual offenders are a heterogeneous population, which is one reason why researchers have attempted to classify them, aiming to provide better understanding of factors which may underlie sexual offending and thereby assist in case formulation, clinical diagnosis, treatment and recidivism prediction (Davis & Archer, 2010; Hall, Graham, & Shepherd, 1991). In this regard, Knight, Rosenberg, and Schneider (1985) suggested that personality and personality disorders could be useful dimensions by which sexual offenders could be classified.

The study of personality traits and disorders provides a key to the understanding in many areas of criminal behavior and in some countries plays an important role in forensic evaluations (Jung, Toop, & Ennis, 2018; Loinaz,

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Ortiz-Tallo, & Ferragut, 2012; Suen, 2013). For example, treatment programs for offenders could potentially be tailored, based on an individual's scores on personality assessment instruments (Chantry & Craig, 1994). In this sense, scales of the Millon Clinical Multiaxial Inventory-III (MCMI-III; Millon, Davis, & Millon, 1997) such as Antisocial, Aggressive-sadistic, Passive-aggressive, Borderline, and Paranoid, have been used as indices of aggression in forensic contexts. Likewise, the comorbidity with offending behavior of personality disorders, prior substance abuse, psychotic symptoms or attention-deficit/hyperactivity disorder (ADHD) is common in studies of forensic populations (Craig, 2005; Loinaz et al., 2012; Pratt, Cullen, Blevins, Daigle, & Unnever, 2002). However, the role of personality functioning in offending behavior is complex, in terms of the extent to which different personality traits are differentially implicated in different types of offenses, variability in their significance between different offenders, and therefore in establishing their role in offense causality (Loinaz et al., 2012).

Researchers have employed many approaches to examine whether individuals who sexually offend display a common set of personality characteristics, such as comparing sex offender psychopathology profiles with control groups (e.g., non-sexual offenders or non-offender population; Davis & Archer, 2010) or whether it is possible to distinguish among groups of sexual offenders on the basis of their personality style (Chantry & Craig, 1994). The various forms of the Millon Clinical Multiaxial Inventory (MCMI; Millon, 1977) and the Minnesota Multiphasic Personality Inventory (MMPI; Hathaway & McKinley, 1940) are the most widely used self-report personality inventories in sex offender populations, followed by the Personality Assessment Inventory (PAI; Morey, 1991) (Chantry & Craig, 1994; Davis & Archer, 2010; Loinaz et al., 2012; Perrot, Bénony, Chahraoui, & Juif, 2014).

These studies suggest that: (1) sexual offenders are a heterogeneous population, in terms of personality disorders, and (2) a variety of diagnoses are associated with the occurrence of sexual offending (Chen, Chen, & Hung, 2016; Davis & Archer, 2010; Perrot et al., 2014). It seems that no prototypic personality profile is characteristic of this population (Davis & Archer, 2010; Hall et al., 1991; Perrot et al., 2014). However, this raises the possibility that there may be more specific associations between certain types of sexual offending and different personality profiles/disorders, as suggested in the studies described below.

The MMPI has shown moderate to large effect sizes when distinguishing between sex offender and non sex offender groups; however, Davis and Archer (2010) suggest that those results may be reflective of general antisocial behavior rather than any more specific personality profiles in sexual offenders. Furthermore, other studies attempting to classify offenders by cluster analysis procedures with the Minnesota Multiphasic Personality Inventory-2 (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) raise

doubts about the suitability and usefulness of this instrument for classification in forensic settings (Espelage et al., 2003; Spaans et al., 2009). The number of clusters found in several studies ranged between two (i.e., one cluster indicating no psychopathology and the other reflecting serious psychopathology) and ten, separating more predatory offenders from those likely to have also been victimized (the so-called Megargee System; Megargee, Carbonell, Bohn, & Sliger, 2001). Despite this, no study has found qualitatively distinct personality profiles in sex offenders' samples (Espelage et al., 2003; Spaans et al., 2009).

On the other hand, studies using the PAI (Morey, 1991) to assess sexual offenders point towards some potential predictive ability of this tool (especially the antisocial scale) for recidivism outcomes among sex offenders (Boccaccini, Murrie, Hawes, Simpler, & Johnson, 2010; Jung et al., 2018); although it did not improve the validity of tailored measures for sexual recidivism risk assessment (Jung et al., 2018). With regard to the MMPI-2-RF (Ben-Porath & Tellegen, 2011), measures of externalizing dysfunction among sexual offenders with child victims showed the strongest associations with static and dynamic risk tools for sexual reoffending assessment (Tarescavage, Cappel, & Ben-Porath, 2018).

Regarding the MCMI-III (Millon et al., 1997) and its earlier versions, although several studies have used them to examine reported constructs in sexual offenders, there is little consistency of findings across these studies (Davis & Archer, 2010). Bard and Knight (1986) found four distinct MCMI profiles in a group of sexual offenders using a cluster analytic methodology. The first three clusters were labeled "detached", "antisocial-aggressive" and "antisocial-negativistic"; the fourth reflected a subclinical profile with no scale with base rate scores over the clinically significant cut-off of 75. In this regard, Langevin et al. (1988) found that most sexual offenders were not distinct from controls in personality characteristics. Results from Ahlmeyer, Kleinsasser, Stoner, and Retzlaff (2003) showed elevated scores on Avoidant, Depressive, Dependent and Schizotypal subscales in sex offender groups, compared to non-sexual offenders. These scores were reported to correspond to profiles characterized by inhibition, relationship difficulties with adults, fear of being judged or rejected, and social isolation. Similar results were obtained by Perrot et al. (2014), using a French questionnaire (TD-12; Rolland & Pichot, 2007).

Proulx, Cusson, and Beauregard (2007) distinguished two broad personality types among sexual murderers using the MCMI-III. The first might be broadly described as psychopathic, displaying elevations in antisocial, borderline and narcissistic traits, and the second group was characterized by schizoid and avoidant traits. Whilst a common theme between the groups could be said to be emotional detachment from others, other aspects of their interpersonal functioning are likely to be quite different, therefore requiring different approaches to treatment and risk management. However, when sexual

murderers were compared with rapists, no differences were found on the personality or clinical syndrome scales of the MCMI-III (Oliver, Beech, Fisher, & Beckett, 2007).

In terms of the MCMI literature, it is important to note that published norms do not include a sex offender base rate/reference group for this instrument (Davis & Archer, 2010). Sexual offenders, as a group, tend to display significantly lower mean scores in the clinical scales than the median score of the normative sample of the MCMI-III (Suen, 2013); however, these mean scores might vary between subgroups of sex offenders.

The current ex post facto study (Montero & León, 2007), analyzes personality patterns in a male sex offender group in prison and compares the results with previous studies on personality in sexual offenders. The aim of the study is to examine the personality profiles of a sample of contact sexual offenders (so-called hands-on sexual offenders) using the MCMI-III. It is expected that an intragroup analysis will find differences between them, in terms of personality characteristics, possibly detecting a subgroup of individuals with high mean scores on some clinical scales. The research findings may have implications for forensic assessments and risk management, and be helpful in formulating treatment goals for different offender sub-types. Finally, personality information may prove useful in addressing issues of treatment responsivity (i.e., the individual's preferred methods of therapeutic engagement; Jung et al., 2018). This is important as it is now well established that the application of "Risk-Need-Responsivity" (RNR) principles, developed by Andrews, Bonta, and Hoge (1990) underpin sex offender treatment programs with the most successful outcomes (Andrews & Bonta, 2010; Hanson, Bourgon, Helmus, & Hodgson, 2009).

Method

Participants

Participants were 97 male convicted for sexual offenses (we were aware of only three females convicted for these crimes and thus decided to include only male subjects in the study). These individuals were serving a prison sentence in Spain ($n = 80$ at the Valencia "Antoni Asunción Hernández" prison, Valencia; and $n = 17$ at the Alicante II prison, Villena). Group mean age was 43.67 years ($SD = 11.97$; range 19–77). Almost 80% of participants were Spanish ($n = 77$; 79.4%) and, among those who were not ($n = 20$; 20.6%), most were Latin American ($n = 14$; 14.4%). The participants' current incarceration period was related to convictions for sexual abuse¹ (61.9%),

¹According to the Spanish Criminal Code, the only difference between sexual abuse and sexual assault is the use of violence or intimidation by the perpetrator. In both cases the victim has not given a valid sexual consent. Since 2015 the age of sexual consent is fixed at 16 years (previously at 13).

sexual assault (32%), or both (4.1%). Some of the participants were also convicted of other non-contact sexual offenses: child pornography offenses (12.4%); exhibitionism (6.2%); and child prostitution (3.1%). Twenty-two participants (22.7%) had sexually offended exclusively against adults and 75 (77.3%) exclusively against victims under the age of 18.

According to their sentences, 32 participants (33%) presented with modifying circumstances of criminal responsibility (i.e., aggravating and/or mitigating circumstances). Aggravating circumstances (14.4%) were: recidivism (6.2%), abuse of confidence (4.1%), kin relationship with the victim (3.1%) and taking advantage of the circumstances (1%). Mitigating circumstances (24.7%) were: compensating the victim for the damages caused (11.3%), disproportionate prolongation of the cause (5.2%), mental anomaly (4.1%), serious substance addiction (4.1%), intoxication (4.1%), confession (2.1%) and collaboration with the authorities (1%).

Measures

Sociodemographic and criminological variables

A set of potentially relevant variables were analyzed for this study: (1) age at time of assessment; (2) type of index crime (sexual assault and/or sexual abuse); (3) use of weapons during the offense; (4) victim age (adult or minor); (5) victim gender (male, female, both); (6) plurality of victims; (7) victim-perpetrator relationship (acquaintances, strangers, relatives, professional/academic, intimate partners); (8) crime setting (perpetrator's residence, victim's residence, family residence, public place, other/various); (9) length of prison sentence (sentences of more than nine years' imprisonment); (10) modifying circumstances of criminal responsibility; (11) prior non-sexual convictions; (12) prior sexual convictions; (13) other active prison sentences; (14) substance abuse; and (15) early victimization experiences (child abuse and/or sex abuse). These variables were systematically extracted from the inmates' prison records (including the judicial sentence, penitentiary classification, and reports of the jurist, psychologist, social worker and doctor). In those cases where the information was missing or further clarifications were needed, the individual was asked to provide more information related to these variables.

Clinical assessment

The Spanish adaptation of the MCMI-III (Cardenal & Sánchez, 2007) was used to assess the sample, as this was the most current version of the original MCMI available in Spain at the time of data collection (MCMI-IV was released in Spain by Pearson in July 2018). It is a self-report inventory composed of 175 true-false items. It assesses 24 clinical scales divided into four categories (11 personality disorders, 3 severe personality disorders, 7 clinical syndromes, 3 severe syndromes), and has 4 validity indices. The scales in the Personality cluster reflect

personality disorders found in Axis II in the DSM-IV-TR, while Syndrome cluster depicts disorders found in Axis I. This instrument has been widely used in forensic settings, to provide diagnostic and psychometric evidence of pathological disturbances (Loinaz et al., 2012; Suen, 2013). It uses Base-Rate (BR) scores – BR are transformed scores reflecting the prevalence rates of particular characteristics within the standardization sample, ranging from 0 to 115. A BR score of 60 corresponds to the median raw score; a BR score > 75 indicates the presence of a trait; a BR score > 85 indicates the presence of a disorder (McCann & Dyer, 1996). The original version of the MCMI-III (Millon et al., 1997) exhibited alpha coefficients ranging from .66 to .90, and test-retest reliabilities ranging from .82 to .96. The Spanish adaptation has similar properties, with internal consistency ranging from .65 to .88, with a test-retest median of .91 (Cardenal & Sánchez, 2007).

Procedure

Participants were individually informed about the aim of the research and their participation was voluntary, was not rewarded, did not affect in any sense the conditions of their confinement, and was confidential. After signing a written informed consent form, their prison record was reviewed and coded; files were inspected and protocols were abstracted, along with demographic information. The sample did not include inmates who had refused to participate in the study. Afterwards, an individual interview was conducted, reviewed and coded by the first author (56 of the participants) and another forensic psychologist and criminologist (41 of the participants), lasting at least 90 minutes, in order to obtain information regarding other relevant criminological variables and establish the necessary rapport with the participant for sincere answers (Sun, 2016). All the coded interviews were reviewed by the first author. In a second session, participants responded individually to the MCMI-III. Only valid profiles were considered in the study (97 out of 103).

Data analysis

First, the 24 MCMI-III clinical scales were analyzed in the whole sample. Second, based on the 14 personality subscales (clustering variables), two clustering methods were performed; both a Ward's Agglomerative Hierarchical Clustering Analysis (Ward, 1963) and a Model-based method (Scrucca, Fop, Murphy, & Raftery, 2016). The first one looks out for clusters in the resulting multivariate Euclidian space. Following Ward's method, the distance between two clusters, *A* and *B*, is equal to the increase of the sum of squares when we merge these two clusters. We used the variation of the merging cost of combining clusters *A* and *B* to decide on the optimal number of clusters (Aldenderfer & Blashfield, 1984).

Regarding the second clustering method, it assumes that there is an underlying gaussian distribution for each cluster and attempts to find it.

A clinical analysis of the resulting MCMI-III group profiles was then undertaken. Third, non-parametric tests (data did not meet the assumptions of normality of distribution or homogeneity of variance, according to the results of the Kolmogorov-Smirnov test) were conducted to identify differences between clusters on MCMI-III clinical scales.

In an effort to externally validate these clusters, analyses were performed to determine any differences between the clusters on the sociodemographic and criminological variables. Mann-Whitney *U* Test was used for differences among the groups, rather than *t* tests, as well as Chi-squared test for categorical data. All the statistical analyses were performed using the statistical language program R.

Results

Sexual offenders' MCMI-III scores

MCMI-III clinical scales mean BR scores (*M*) and *SD* for the full sample ($N = 97$) are shown in Tables 1 and 2. The modal code (i.e., resulting MCMI-III profile) had no clinically elevated scales, although the most prominent personality subscales were Compulsive and Narcissistic ($BR > 60$).

Personality cluster

Both clustering methods identified two groups of individuals; however, the hierarchical clustering analysis (see Figure 1) was the chosen approach, as it maximized differences between both groups (see Table 1).

As shown in Table 1, Mann-Whitney Test revealed significant differences ($p < .05$) among the two groups, with regards to all variables. Their graphical profile is represented in Figure 2. For the two groups, the modal code had no clinically elevated scales. Group 1 ($n = 54$; 55.67%) showed the highest scores on the Paranoid and Narcissistic subscales ($BR > 60$). Group 2 ($n = 43$; 44.33%) peaked on Compulsive, Narcissistic and Histrionic subscales ($BR > 60$).

Comparing both groups, group 1 exhibited the highest scores on all personality subscales, except for Histrionic, Narcissistic, and Compulsive subscales, and was labeled “pathological”. No distinguishable personality profile was found. Group 2 showed the highest elevations in scores for Histrionic, Narcissistic, and Compulsive subscales related to non-pathological personality styles² (Craig, 2005; Loinaz et al., 2012; White & Gondolf, 2000), and was labeled “adapted/non-pathological”.

²Provided that there are elevations in social desirability response bias ($M = 86.51$), but not in the syndrome subscales; as shown in Table 2.

Table 1. Means and standard deviations for different clusters using both hierarchical and model-based clustering analysis.

Personality subscale	Total sample (N = 97)						Hierarchical clustering						Model-based clustering							
	Cluster 1 (n = 54)		Cluster 2 (n = 43)		Z	p	Cluster 1 (n = 56)		Cluster 2 (n = 41)		Z	p	Cluster 1 (n = 56)		Cluster 2 (n = 41)		Z	p		
	M	SD	M	SD			M	SD	M	SD			M	SD	M	SD			M	SD
1 Schizoid	42.00	22.93	56.39	15.47	23.93	17.31	-6.98	<.001	45.84	23.11	36.76	21.89	-1.89	.059	45.84	23.11	36.76	21.89	-1.89	.059
2A Avoidant	38.12	25.26	55.02	18.34	16.91	14.33	-7.06	<.001	46.18	24.70	27.12	21.85	-3.88	<.001	46.18	24.70	27.12	21.85	-3.88	<.001
2B Depressive	39.61	24.82	52.50	20.90	23.42	19.35	-5.58	<.001	46.32	24.72	30.44	22.11	-3.11	.002	46.32	24.72	30.44	22.11	-3.11	.002
3 Dependent	44.09	22.02	55.15	18.27	30.21	18.24	-5.74	<.001	47.88	23.48	38.93	18.94	-2.19	.029	47.88	23.48	38.93	18.94	-2.19	.029
4 Histrionic	47.58	20.98	37.37	17.60	60.40	17.69	-5.44	<.001	40.57	20.59	57.15	17.62	-3.84	<.001	40.57	20.59	57.15	17.62	-3.84	<.001
5 Narcissistic	64.82	13.52	62.07	15.84	68.28	8.90	-2.51	.012	60.66	15.09	70.51	8.25	-3.67	<.001	60.66	15.09	70.51	8.25	-3.67	<.001
6A Antisocial	44.29	22.59	54.96	19.49	30.88	18.89	-5.02	<.001	45.68	22.57	42.39	22.76	-0.53	.596	45.68	22.57	42.39	22.76	-0.53	.596
6B Sadistic	38.87	23.87	54.43	15.08	19.33	17.7	-7.09	<.001	39.09	26.04	38.56	20.86	-0.22	.982	39.09	26.04	38.56	20.86	-0.22	.982
7 Compulsive	65.01	18.92	57.46	19.12	74.49	13.84	-4.49	<.001	61.91	20.22	69.24	16.27	-1.72	.086	61.91	20.22	69.24	16.27	-1.72	.086
8A Negativistic	38.01	22.96	53.04	16.5	19.14	14.39	-7.09	<.001	44.55	23.58	29.07	18.95	-3.3	.001	44.55	23.58	29.07	18.95	-3.3	.001
8B Masochistic	34.95	24.17	50.37	15.29	15.58	18.71	-6.74	<.001	38.88	24.41	29.59	23.05	-1.76	.078	38.88	24.41	29.59	23.05	-1.76	.078
S Schizotypal	35.37	26.70	54.41	16.82	11.47	14.89	-7.56	<.001	41.79	28.28	26.61	21.80	-3.06	.002	41.79	28.28	26.61	21.80	-3.06	.002
C Borderline	35.73	23.55	50.91	16.53	16.67	15.97	-7	<.001	40.20	25.14	29.63	19.90	-2.46	.014	40.20	25.14	29.63	19.90	-2.46	.014
P Paranoid	47.79	28.25	68.02	11.03	22.40	22.02	-7.84	<.001	49.29	30.11	45.76	25.72	-1.79	.074	49.29	30.11	45.76	25.72	-1.79	.074

Note. Values in bold indicate higher scores ($p < .05$).

Table 2. Means and standard deviations for different subtypes of sexual offenders in MCMI-III syndrome subscales.

Syndrome subscale	Total sample (N = 97)		Pathological group (n = 54)		Adapted non-pathological group (n = 43)		Z	p
	M	SD	M	SD	M	SD		
A Anxiety	47.81	35.63	68.11	28.24	22.33	26.47	-6.23	<.001
H Somatoform	34.77	24.79	44.46	20.87	22.60	24.14	-4.01	<.001
N Bipolar (manic)	50.93	24.38	63.76	17.10	34.81	22.63	-6.14	<.001
D Dysthymia	32.99	26.59	45.17	24.98	17.70	19.98	-5.09	<.001
B Alcohol dependence	46.47	25.04	56.87	20.07	33.42	24.73	-4.53	<.001
T Drug dependence	48.30	30.61	59.07	29.59	34.77	26.45	-3.58	<.001
R Post-traumatic stress	34.79	27.81	49.96	22.76	15.74	21.14	-5.78	<.001
SS Thought disorder	35.00	30.6	53.76	26.14	11.44	16.02	-6.72	<.001
CC Major depression	35.66	28.36	46.72	26.32	21.77	24.70	-4.39	<.001
PP Delusional disorder	50.12	29.84	66.43	14.93	29.65	31.35	-6.18	<.001

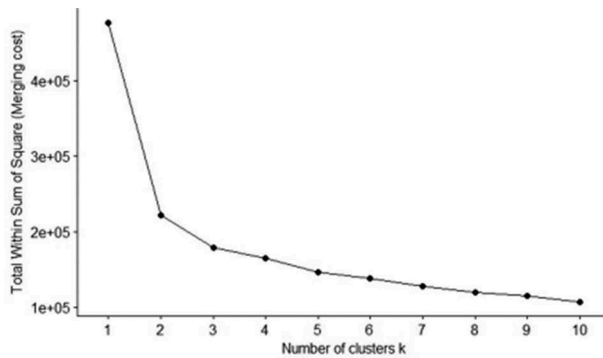


Figure 1. Agglomeration schedule for the last ten steps of cluster analysis. The sudden increase in the total within-clusters error sum of squares for the last step suggests that the two-cluster solution is the appropriate one.

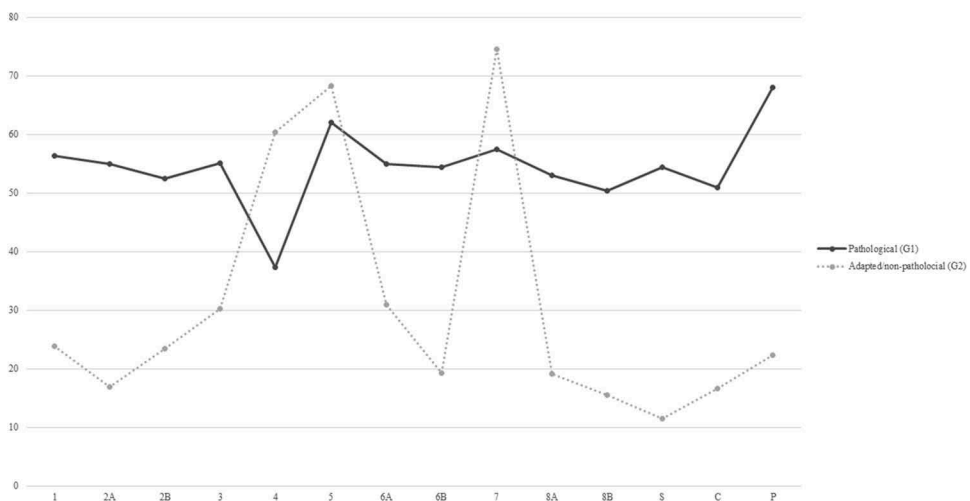


Figure 2. Base rate score graphical profiles.

Other differences between groups

MCMI-III syndrome subscales *M* and *SD* for the two groups are shown in Table 2. The modal code had no clinically elevated scales in any of the two groups. The pathological group showed the highest scores on Anxiety, Delusional Disorder and Bipolar (manic) subscales ($BR > 60$). The adapted/non-pathological group did not attain suggestive symptom scores. Comparing both groups, the pathological group exhibited the highest scores on all syndrome subscales. Mann-Whitney Test revealed significant differences ($p < .001$) among the two groups.

Chi-squared test for categorical data revealed no statistically significant differences between groups in criminological variables, except for the length of the prison sentence. 46.3% in the pathological group vs. 25.6% in the adapted/non-pathological group were serving sentences of more than nine years' imprisonment ($p = .036$). Mann-Whitney Test revealed significant differences in the age of the two groups (Pathological group: mean age = 41.59; $SD = 13.27$. Adapted/non-pathological group: mean age = 46.28; $SD = 9.63$. $Z = -2.44$; $p = .015$).

Discussion and conclusions

The rationale for this study was to explore the possibility of classifying sexual offenders according to their MCMI-III personality profiles. This is the first study to analyze MCMI-III scores in a sample of imprisoned contact sexual offenders in Spain, and it is also the first time that these scores were obtained using the Spanish version of the instrument. Therefore, the results cannot be compared to other samples at this detailed level. Despite this, the results were consistent with some previous research on personality characteristics of sexual offenders, as detailed below.

First, results showed that there is considerable diversity in personality patterns among sexual offenders. As reported in previous studies (Espelage et al., 2003; Spaans et al., 2009; Suen, 2013), no prototypic personality profile was found. Consistent with Suen (2013), the mean scores for the full sample, higher for Compulsive and Narcissistic subscales ($BR > 60$), were not fully consistent with personality disorders usually related to violent behavior (i.e., antisocial, paranoid, narcissistic, borderline, and avoidant; Fountoulakis, Leucht, & Kaprinis, 2008; Nestor, 2002; Stone, 2007).

Based on MCMI-III personality subscales, only two groups of distinct personality characteristics (i.e., all mean *BR* scores were significantly different among the two clusters; $p < .05$) were found using cluster analysis. The two clusters obtained confirm that some sexual offenders, at least 44% of the sample, met criteria for a non-pathological profile. Narcissistic, compulsive, and histrionic tendencies found in the "adapted/non-pathological" group might correspond to what White and Gondolf (2000) described as defensive "looking good" responses or could alternatively be interpreted as an absence

of pathology (Craig, 2005; Ortiz-Tallo, Cardenal, Ferragut, & Cerezo, 2011). The other group, labeled as the “pathological group”, could be a mixture of normal profiles and subjects with pathological traits. This group exhibited the highest scores on all personality subscales, except for Histrionic, Narcissistic, and Compulsive subscales, as well as on all syndrome subscales ($p < .001$); although no distinguishable personality profile was found among this group of sexual offenders, nor mean BR scores higher than 75. Studies indicating only two separate clusters raise doubt about the suitability of using the MCMI-III for classifying sexual offenders in forensic settings (Spaans et al., 2009). Furthermore, the two resulting clusters in this study were not associated with different types of sexual offenders, in the sense of different concrete MCMI-III prototypical profiles (e.g., aggressive-sadistic, avoidant, ...), but only varied in the degree of general psychopathology (Espelage et al., 2003; Spaans et al., 2009).

Moreover, differences in personality were not strongly associated with other criminological variables analyzed, except for the length of the prison sentence, a variable that may be related to strictly legal factors, such as the year of commission of the crime, or the concurrence of modifying circumstances of criminal responsibility; although it might also be indicative of the perceived dangerousness of the offenders at the sentencing stage. With respect to sociodemographic variables, differences observed in the mean age of both groups, although statistically significant, do not seem relevant for the purposes of this study, since they do not represent a meaningful difference between age groups (41.59 vs. 46.28 years) in that both are at the same general stage of life. Cluster analysis will always create clusters, regardless of the actual existence of any structure in the data. Only with strong conceptual support, and then validation, are the clusters potentially meaningful and relevant. Therefore, MCMI-III code types would inadequately describe the heterogeneity of this population (Hall et al., 1991). However, it is possible that the resulting clusters may differ in other variables that have not yet been analyzed in this study.

We must also take into account the limitations in sample size ($N = 97$), as well as the inclusion of only those inmates who participated voluntarily in the study, and of them, only the valid MCMI-III profiles were used. We could be excluding a group of sexual offenders with serious personality disorders, or with a much more antisocial profile. However, the peculiarities of self-report personality inventories impede conducting rigorous assessments without a minimum of cooperation on the part of the interviewee. On the other hand, our sample was mostly comprised of individuals whose offense history was exclusively related to offenses against adolescents and children. In this regard, several studies have shown that sexual offenders with adult and minor victims differ in their personality traits and psychopathological symptoms; identifying individuals with a sexual offending history against minor victims

as more dependent, anxious, socially impaired and depressed, displaying more emotional disturbances, lower levels of self-esteem, a lack of self-confidence and emotional maturity and higher levels of emotional pressure (Ahlmeyer et al., 2003; Carvalho & Nobre, 2014; Chakhssi, DeRuiter, & Bernstein, 2013; Chantry & Craig, 1994; Shechory & Ben-David, 2005; Whitaker et al., 2008). offenders should be focused primarily on their criminological dynamic risks factors (Margari, Lecce, Craig, Laforteza, & Grattagliano, 2015; Suen, 2013), individual treatment plans could usefully incorporate personality profiles within responsivity considerations for each of the members of the therapeutic group (Suen, 2013). Furthermore, in this context, individualized treatments have displayed the largest effects in terms of the reduction of recidivism rates among sexual offenders (Soldino & Carbonell-Vayá, 2017).

In order to differentiate between sexual offenders' subtypes, or identify sexual offenders from other socially deviant groups, practitioners should use instruments designed specifically for sexual offenders. The use of empirically validated measures of criminogenic needs with this population is the most supported by research (Jung et al., 2018): e.g., actuarial measures such as STABLE-2007 (Hanson, Harris, Scott, & Helmus, 2007) or the Violence Risk Scale – Sexual Offender version (VRS-SO; Olver, Wong, Nicholaichuk, & Gordon, 2007); and Structured Professional Judgment (SPJ) measures such as Sexual Violence Risk-20 (SVR-20; Boer, Hart, Kropp, & Webster, 1997), or the Risk for Sexual Violence Protocol (RSVP; Hart et al., 2003). General personality assessment instruments such as the MCMI-III or the new MCMI-IV (Millon, Millon, & Grossman, 2015) were not originally designed for this purpose and may lack the item content needed for effectively assessing sexual offenders (Davis & Archer, 2010). Likewise, approaches including the simultaneous assessment of different relevant variables (e.g., cognitive distortions, paraphilia, or impulsivity), could provide a more accurate technique (Loinaz et al., 2012).

Despite the interest in examining personality in forensic contexts, it appears, for now, to have limited explanatory value on its own in categorizing sexual offending behavior. It may be concluded that the usefulness of the MCMI-III in a forensic context is restricted to screening for the presence or absence of general psychopathological symptoms. Nevertheless, the MCMI-III can certainly be used in individual cases to identify psychopathological characteristics that may be relevant to treatment (Davis & Archer, 2010; Spaans et al., 2009). The absence of prototypical personality profiles among contact sexual offenders suggests that individuality prevails within the group, and that the MCMI-III scores should be used in an ideographic way to assess the individual sex offender rather than looking simply at pathological personality manifestations (Suen, 2013).

We still need to advance the study of these aspects in larger samples, as well as our understanding about sexual offenders' characteristics that predict treatment dropout (Olver & Wong, 2011) or recidivism risk. Future research

should focus on the utility of tailored assessment instruments for sexual offenders to gain further knowledge about how sexual offenders differ from one another or from other deviant groups (Davis & Archer, 2010). Other variables (e.g., victim-related characteristics or type of sexual crime), rather than personality traits and disorders, may be a more suitable dimension by which sexual offenders could be classified.

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