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# Exploring Clinical and Personality Characteristics of Adult Male Internet-Only Child Pornography Offenders

**Philip R. Magaletta[1], Erik Faust[1], William Bickart[1], and Alix M. McLearen[1]**

## Abstract

Despite the dramatic increase in the number of convicted child pornography offenders, little is known about their potential clinical needs. The few studies that do explore this subgroup of sex offenders suggest clinical heterogeneity compared with other sex offender subgroups. However, research designs used in many studies have limited generalizability, have examined primarily treated or treatment samples, and have not included comparisons with nontreatment, community samples of men. The current study addresses such limitations by using nontreatment samples and multiple comparison groups to examine mean scales score differences on a commonly used clinical and personality assessment, the Personality Assessment Inventory (PAI). The sample, drawn from an admissions cohort of federal offenders, those Internet-only Child Pornography Offenders (ICPOs; *n* = 35) and those with a history of child molesting exclusively (child molesters, *n* = 26). They were compared with each other and the male normative sample from the PAI. Results indicate that interpersonal deficits and depression featured most prominently in the profiles of the ICPOs. Consistent with prior research, they also obtained lower scores on aggression and dominance compared with the child molesters and the male normative sample. Implications for future research, training, and clinical practice with incarcerated ICPOs are offered.

## Keywords

Internet, child pornography, offenders, personality, sexual offenders

[1]Federal Bureau of Prisons, Washington, DC, USA

**Corresponding Author:**
Philip R. Magaletta, Clinical Training Coordinator, Psychology Services Branch, 320 First ST NW, Federal Bureau of Prisons, Washington, DC 20534, USA.
Email: pmagaletta@bop.gov

Among the trends affecting contemporary correctional population growth are the burgeoning numbers of Internet sex offenders, the majority of whom were convicted on charges of child pornography possession or distribution. Internet sex offenders are among the fastest growing segments of the federal offender population and were the most frequently arrested and prosecuted category of sex offenders in recent years (Bureau of Justice Statistics, 2007). From the criminalization of child pornography in the 1980s to the advent and expansion of the Internet in the 1990s, the turn of the century found law enforcement resources increasingly focused on the problem of the exploitation of minors, and Internet sexual offenders were investigated, prosecuted, and sentenced in greater numbers (Beech, Elliott, Birgden, & Findlater, 2008; Wolak, Finkelhor, & Mitchell, 2011). As an emergent offender group, child pornography offenders pose correctional management and clinical treatment challenges that are not yet fully understood.

Sexual offending can be mapped across a broad spectrum of behaviors and represents a dynamic process. In this way, child pornography offenders using online media do represent a heterogeneous group of individuals. However, their crimes can be divided into several categories. Some use the Internet as a medium to contact or lure child victims via chat-type forums, whereas others victimize minors by compelling them to participate in the creation of digital child pornography that is distributed online. Like other contact sex offenders, these persons directly sexually assault, or attempt to sexually assault, an identifiable victim. In contrast, Internet-only child pornography offenders (ICPOs) do not directly assault an individual, but rather engage in a form of secondary, noncontact victimization, whereby a market for documentation of primary victimization is maintained. Until recently, ICPOs were relatively hard to detect, and therefore study, but the perceived anonymity of online conduct has facilitated an increase in the commission of this type of crime (Steel, 2009; Wolak et al., 2011), with a corresponding increase in apprehension, prosecution, and conviction of ICPOs (Bureau of Justice Statistics, 2007).

Creating a unique challenge for corrections administrators and managers in the United States, much of what is known about male ICPOs has emerged from non-U.S., international criminal justice jurisdictions. Furthermore, although ICPOs now comprise a significant proportion of the incarcerated sex offender population, corrections staff have had to manage them based on a limited body of knowledge. Problematically, clinicians who are asked to screen, assess, manage, or treat the behavior of this offender group struggle to understand the treatment targets they are being asked to approach and influence. Given the paucity of clinical research with ICPOs, clinicians are left to select treatment interventions based on their own clinical experiences and expertise. Much of the published work thus far has examined contact sexual offending against children and/or adults, leaving practitioners to extend this knowledge—sometimes theoretically sometimes empirically—to ICPOs. Although the importance of establishing theoretical and empirical underpinnings for clinical practice is obvious, there exists a critical need to empirically determine the personality and clinical

characteristics of ICPOs using validated clinical and personality assessment instruments that could influence treatment targets and approaches.

One instrument that holds high potential for aiding in this process is the Personality Assessment Inventory (PAI; Morey, 2007). This one instrument includes several personality and clinical measures as well as treatment indicators. Of relevance to those who work in the criminal justice system, the instrument has become a popular tool among correctional clinicians and researchers (Douglas, Hart, & Kropp, 2001; Edens, Cruise, & Buffington-Vollum, 2001; Edens & Ruiz, 2005; Morey & Quigley, 2002). Supported by strong psychometric properties, the instrument is brief, inexpensive, and normed to a fourth-grade reading level. In addition, several normative samples are available for use with the instrument, one of which includes data from males and females in the community not receiving clinical treatment services.

Given the many strengths of the PAI, it is not surprising that it featured centrally in one of the seminal studies on the ICPO population. To gain an understanding of how personality traits are distributed among ICPOs, Laulik, Allam, and Sheridan (2007) administered the PAI to a sample of 30 Internet sex offenders in treatment, 24 of whom were ICPOs. Compared with the normative community sample for the PAI, they found that Internet offenders were lower on Dominance (DOM) and Warmth (WRM), and higher on depression. In addition, they identified significant relationships between time spent accessing exploitative materials and scales measuring Somatic Complaints (SOM), Depression (DEP), Schizophrenia (SCZ), Borderline Features (BOR), and WRM. A possible interpretation of these findings is that some Internet sexual offenders are interpersonally isolated or incapable of forming adult attachments due to social deficits. In other words, Internet sexual activity could be a substitute for adult attachments.

Outside this important study, which is unique in looking specifically at personality variables of ICPOs, a broader set of studies has attempted to classify offenders based on the development of their offense behaviors. From these studies on etiological classifications of offenders, no profile of ICPOs has been supported by empirical research on offender populations, although personality and pathology have been used as explanations for the development of sex offending behaviors (Ahlmeyer, Kleinsasser, Stoner, & Retzlaff, 2003; Murray, 2000). A notable exception is the work of Middleton, Elliott, Mandeville-Norden, and Beech (2006) who attempted to categorize Internet offenders into one of five groups according to etiological pathways suggested by Ward and Siegert (2002). These pathways, which are based on a number of internal and environmental factors, include deviant sexual scripts, multiple dysfunctional mechanisms, antisocial cognitions, emotional dysregulation, and intimacy deficits pathways. Although many participants fell into one of the last two categories, this attempt only successfully categorized about half of the sample; the remaining participants did not appear to clearly fit into any of the five categories. The etiological pathways approach to classifying Internet offenders is hampered by the absence of a fully conceptualized etiological pathway motivated by sexual interest in children.

Although efforts to develop an empirically based and validated taxonomy have stalled, other investigations have utilized this information as a catalyst to explore the presence of various traits and psychological constructs within the population. For example, the aforementioned etiological pathways study supports the finding that a significant proportion of ICPOs appear to have deficits in the socioaffective domain. Given this finding, the significant interpersonal deficits in intimacy, esteem, and empathy often revealed in research with child molesters (Bumby & Hansen, 1997; Marshall, Champagne, Sturgeon, & Bryce, 1997) were thought to likely feature prominently among ICPOs.

The aforementioned study by Laulik et al. (2007) was one which supported such a hypothesis. In this same vein, Elliott, Beech, Mandeville-Norden, and Hayes (2009) studied ICPOs and found greater ability to empathize with child victims, as compared with contact sexual offenders and suggested the Internet offender may experience a sort of "pseudo-intimacy" with the child victim, perhaps serving as a substitute for a genuine intimate relationship with another adult. This information may suggest some offenders use the viewing of child pornography on the Internet as a means of emotional avoidance or emotional self-regulation. As Quayle, Vaughan, and Taylor (2006) indicate, simply locating pornographic material may provide ICPOs with a way to avoid negative feelings or undesirable emotional states. Although additional studies are needed to more accurately pursue these hypotheses and interpret the findings, it is clear from these studies that ICPOs from these samples present with a unique set of psychological characteristics, with one of the more pronounced areas being interpersonal deficits.

In addition to the research presented to this point, a second group of studies has focused on the comparisons between ICPOs and contact offenders. For example, ICPOs have been found to have higher levels of under assertiveness (Elliot et al., 2009), education and intelligence (Blanchard et al., 2007), motor impulsivity (Elliot et al., 2009), and deviant or pedophilic sexual interests (Seto, Cantor, & Blanchard, 2006; Webb, Craissati, & Keen, 2007) when juxtaposed to contact offenders. In contrast, the ICPOs have lower levels of criminality, as indicated by criminal history and psychopathy scores (Webb et al., 2007). Although these studies suggest there are some differences between these offenders groups, other investigations (Bourke & Hernandez, 2009; Seto, 2008; Seto, Hanson, & Babchishin, 2011) have found that many persons convicted of child pornography offenses also possess contact offense histories. This "cross-over" literature suggests the possibility of an interrelationship among these two populations and further complicates such comparisons in the literature. It may be that three distinct groups exist: contact offenders, ICPOs, and those who engage in both types of behavior.

A third grouping of studies has centered on the role of cognitive distortions in sex offender subpopulations. For example, Elliott et al. (2009) found that ICPOs had less victim empathy or other offense-supporting cognitive distortions than contact offenders. In contrast, O'Brien and Webster (2007) found that the level of cognitive distortions in ICPOs correlated with the extent of prior offense history, both sexual and nonsexual. Howitt and Sheldon (2007) found that Internet offenders and contact offenders had much the same degree and types of cognitive distortions, although

ICPOs tended to more commonly demonstrate the distortion of "children as sexual beings." Taken together, findings from these studies suggest that cognitive distortions between ICPOs and other sexual offender groups share similarities and differences.

Although the studies described thus far have strengthened and expanded the available knowledge base, they have not been without common limitations. For example, studies have inconsistently operationalized groups and subgroups of sexual offenders. Comparisons of ICPOs with other groups have been nonexistent or made only with contact sexual offenders without specifying whether the contact victims were adults, children, or both. Moreover, nearly all of the studies of ICPOs utilize international, non-U.S. samples. Aside from potential cultural and ethnic differences, jurisdictional issues pertaining to actual law may prevent the generalizability of these studies to a U.S. population.

Another common limitation has been that samples represent participants from treatment programs. This is problematic as results from such studies may be influenced by the propensity of participants to seek help or to appear to be seeking help. When using clinical and personality-based approaches to understand offenders, this kind of limitation is particularly daunting. There exists a very real concern that the measurement effects captured reflect the degree of distress the individual feels over his own behavior, or equally biased, wanting to appear distressed over his behavior. Being able to study nontreatment groups would allow researchers to mitigate treatment-based selection bias effects. It would also increase the availability of capturing clinically relevant information that does not necessarily reflect the degree of distress one feels about offense behavior nor outside pressures to reflect a degree of distress to garner favorable outcomes to oneself.

Thus, the purpose of the current work was to examine the relevant personality and clinical features of a sample of male ICPOs not influenced by selection bias due to treatment participation or interest and to make comparisons with community and other criminal justice–involved sex offender samples. To date, a study with these features has not been conducted and this information can provide the necessary framework for additional, more specialized investigations. The degree to which the ICPOs are similar to or distinct from other criminally convicted sexual offenders is important for informing management and treatment in custody. Ultimately, determining the heterogeneity of this group at several levels, including personality and clinical realms, may help determine various management and treatment approaches during incarceration. Although the current work is exploratory, it is expected to replicate the interpersonal deficits and depression findings of earlier studies conducted with treatment samples from international jurisdictions.

## Method

### *Participants*

Participants selected for inclusion in the current research were drawn from a larger project on the mental health needs of newly admitted federal offenders in custody (see

Diamond & Magaletta, 2006; Magaletta, Diamond, Faust, Daggett, & Camp, 2009).[1] They had an official record indicating a current or prior conviction for a sexual offense involving a child and had completed a battery of psychological tests that yielded scores confirmed to be indicative of valid responding.[2,3] This yielded the sample of 61 offenders examined in the current study. All participants were male. We next delineated two categories, those whose official history of sexual offense revealed an offense or offenses involving only child pornography ($n$ = 35) and those with a history of child contact offending only ($n$ = 26). For the purposes of this study, ICPOs were those individuals who had been convicted of possessing or distributing child pornography. In addition, these offenders had no indication in a review of their prior convictions of actual sexual contact with children under age 18 during either their current offense or in the past. Those offenders in the contact only "child molester" group were convicted of attempted or actual child victimization when the victim was under the age of 18. In addition, this group did not have any convictions for child pornography offenses.

The majority of the participants in the study sex offender samples were White (70%, $n$ = 43), although it is noted that for ICPOs this was higher, 91% ($n$ = 32), and for the child molesters, it was lower, at 42% ($n$ = 11). The mean age of participants in the ICPOs was 51, whereas the mean age in the child molester group was 44. Other descriptive data are presented in Table 1.

## Measures

The PAI is a 344-item self-report instrument that includes 23 nonoverlapping personality and clinical scales (Morey, 1996). The instrument generally takes an hour to administer and is designed for a fourth-grade reading level. Once scored, the instrument yields 4 validity scales and 11 clinical scales: SOM, Anxiety (ANX), Anxiety-Related Disorders (ARD), DEP, Mania (MAN), Paranoia (PAR), SCZ, BOR, Antisocial Features (ANT), Alcohol Problems (ALC), and Drug Problems (DRG). It also yields 5 treatment scales: Aggression (AGG), Suicidal Ideation (SUI), Stress (STR), Nonsupport (NON), and Treatment Rejection (RXR); as well as 2 interpersonal scales: DOM and WRM. An authoritative volume describing the intended use of the inventory as well as reliability and validity information has been published (Morey, 2007), and an increasingly extensive body of work has emerged for use of the scale with correctional and forensic populations (Edens & Ruiz, 2005; Ruiz, Douglas, Edens, Nikolova, & Lilienfeld, 2011).

## Procedure

The PAI was used in two ways for the current study. The first was to gather the PAI clinical, treatment, and interpersonal $T$-scale conversions for the U.S. Census matched male normative population ($N$ = 480) as presented in Morey (2007). These data were drawn to form a comparison group representing males in the community who were

**Table 1.** Demographic Data on Sex-Offender Participant Samples.

| Race | ICPOs *n* = 35 (%) | Child molesters *n* = 26 (%) |
|---|---|---|
| African American | 2 (5.7) | 8 (30.8) |
| White | 32 (91.3) | 11 (42.3) |
| Asian | 0 (0.0) | 0 (0.0) |
| Native American | 0 (0.0) | 1 (3.8) |
| Hispanic | 1 (2.9) | 6 (23.1) |
| Marital status (at arrest) | | |
| Married | 12 (34.3) | 7 (27.0) |
| Divorced | 12 (34.3) | 3 (11.5) |
| Single | 10 (28.6) | 13 (50.0) |
| Widowed | 0 (0.0) | 1 (3.8) |
| Other | 1 (2.9) | 2 (7.7) |
| Age (mean) | 51.4 | 44.1 |
| Education (mean) | 14.2 | 11.5 |

Note: ICPOs = Internet child pornography offences.

not receiving treatment. We wanted a nontreatment comparison group of men from across communities in the United States as these communities are where ICPOs offenses take place.

Second, the *T*-scale conversions for the sampled 61 sex offender participants were produced and then the mean *T*-scale and standard deviations for the male normative, ICPOs, and child molesters were organized (see Table 2). Next, we explored whether the groups varied from one another on the PAI clinical treatment and interpersonal scales. To do this, comparisons were made for each scale using ANOVA with post hoc Bonferroni analysis when the omnibus *F* test was significant.

## Results

### *Clinical Scales*

Statistically significant omnibus *F* tests (see Table 2) were found for 9 of the 11 clinical scales. However, follow-up post hoc analyses revealed that comparisons between the male normative and ICPOs accounted for more similarities than differences. There were only 3 clinical scales for which statistically significant mean scale differences emerged between these two groups. For the 3 scales with observed differences, 2 scales (DEP and BOR) revealed significantly higher averages for the ICPO sample and 1 (MAN) was significantly lower. The mean DEP scale averages for the male normative sample and the ICPOs were 50 (*SD* = 10.4) and 57 (*SD* = 17.7), respectively. The mean BOR scale averages for the male normative sample and the

**Table 2.** *T*-Score Means With ANOVAs on PAI Clinical, Treatment, and Interpersonal Scales.

| | PAI male normative (*n* = 480) | | ICPOs (*n* = 35) | | Child molesters (*n* = 26) | | Omnibus *F* test | Post hoc Bonferroni |
|---|---|---|---|---|---|---|---|---|
| | *M* | *SD* | *M* | *SD* | *M* | *SD* | | |
| PAI clinical scales | | | | | | | | |
| Somatic Complaints | 50 | 10.4 | 50 | 13.0 | 55 | 14.4 | 2.653 | |
| Anxiety | 49 | 9.9 | 52 | 13.1 | 54 | 12.5 | 4.095* | B |
| Anxiety-Related Disorder | 49 | 9.7 | 51 | 14.0 | 54 | 13.1 | 3.438* | B |
| Depression | 50 | 10.4 | 57 | 17.7 | 58 | 14.3 | 11.941*** | A, B |
| Mania | 52 | 10.2 | 46 | 9.2 | 50 | 11.0 | 5.971** | A |
| Paranoia | 51 | 10.0 | 53 | 13.6 | 63 | 14.6 | 16.335*** | B, C |
| Schizophrenia | 51 | 10.4 | 51 | 13.7 | 55 | 15.2 | 1.665 | |
| Borderline features | 51 | 10.2 | 57 | 14.6 | 60 | 14.9 | 12.892*** | A, B |
| Antisocial Features | 53 | 10.6 | 54 | 11.0 | 63 | 14.1 | 10.580*** | B, C |
| Alcohol Problems | 53 | 11.5 | 49 | 10.4 | 60 | 15.5 | 6.743** | B, C |
| Drug Problems | 51 | 11.6 | 49 | 10.0 | 60 | 15.7 | 7.982*** | B, C |
| PAI Treatment Scales | | | | | | | | |
| Aggression | 52 | 10.8 | 45 | 10.3 | 56 | 14.0 | 8.751*** | A, C |
| Suicidal Ideation | 51 | 11.5 | 54 | 19.0 | 53 | 14.2 | 1.245 | |
| Stress | 50 | 10.1 | 60 | 14.0 | 62 | 12.0 | 29.271*** | A, B |
| Nonsupport | 51 | 10.5 | 51 | 13.0 | 59 | 13.7 | 6.737** | B, C |
| Treatment Reject | 50 | 10.2 | 41 | 12.0 | 44 | 9.7 | 15.838*** | A, B |
| PAI interpersonal scales | | | | | | | | |
| Dominance | 52 | 9.9 | 47 | 10.1 | 54 | 11.1 | 4.782** | A, C |
| Warmth | 48 | 9.9 | 46 | 11.5 | 45 | 9.4 | 1.672 | |

Note: PAI = Personality Assessment Inventory; ICPOs = Internet child pornography offences. A: PAI male normative versus ICPOs significant at $p < .05$. B: PAI male normative versus child molester significant at $p < .05$. C: ICPOs versus child molester significant at $p < .05$.
*Omnibus *F* test $p < .05$. **Omnibus *F* test $p < .01$. ***Omnibus *F* test $p < .001$.

ICPOs were 51 (*SD* = 10.2) and 57 (*SD* = 14.6), respectively. The mean MAN scale for the male normative sample was 52 (*SD* = 10.2), and for the ICPOs the lower mean was 46 (*SD* = 9.2). This last finding for the MAN scale was unique, in that it was the only clinical scale where follow-up testing indicated a main effect between the ICPOs and the male normative, but not for the other potential comparisons.

The remainder of the follow-up comparisons for the clinical scales revealed many significant differences in mean scale scores between the male normative and child molester samples. These were observed on 8 of the 11 clinical scales, namely, ANX, ARD, DEP, PAR, BOR, ANT, ALC, and DRG. All of the mean scale differences observed in the male normative and child molester samples indicated higher average scale scores for the child molester sample. The most marked of these was observed for PAR. The mean PAR scale averages for the male normative and the child molesters were 51 (*SD* = 10.0) and 63 (*SD* = 14.6), respectively.

Finally, follow-up analyses on four clinical scales (PAR, ANT, ALC, and DRG) also yielded significant differences in mean scales between the ICPOs and child molester samples. All of the mean scale differences observed in these comparisons indicated higher average scale scores for the child molester sample. The most marked of these were observed for substance abuse. Here, the mean ALC scale averages for the ICPOs and the child molesters were 49 ($SD$ = 10.4) and 60 ($SD$ = 15.5), respectively. Similarly, the mean DRG scale averages for the ICPOs and the child molesters were 49 ($SD$ = 10.0) and 60 ($SD$ = 15.7), respectively.

## *Treatment Scale Comparisons*

As used in the current study, the five treatment scales were used to explore personality differences one might find across groups, differences that could be important for the purposes of treatment planning. The first of these scales is AGG, a scale which taps an individual's expression of hostility or aggression. This is the only scale where the follow-up analyses for the significant $F$ test was observed for the ICPOs and the male normative and the child molester samples. For this scale, the ICPOs had a statistically significant lower average score than the male normative and child molester samples. On this scale, lower scores suggest of unassertiveness. Of note, there were no differences observed between the male normative and child molesters on this scale.

The second treatment scale, SUI, did not produce an observed effect for the omnibus $F$ test. However, the third scale, STR, a measure of one's perception of stress across several domains, did. Post hoc analyses here revealed differences for ICPOs compared with the male normative sample, as well as between the child molesters and male normative sample. Both offender groups experienced, on average, a moderate degree of stress in their daily prison life. The fourth treatment scale NON taps one's perception of available social support, with higher scores indicating less social support available from proximal and distal sources. The omnibus $F$ test here was significant. Follow-up analyses indicated that the male normative and ICPOs scale scores were identical, and the child molester sample was statistically higher than both. The final scale, RXR, which taps motivation to change, was also significant at the overall level. Follow-up tests revealed similarities among those in the sex offender samples, and each were observed to be statistically lower on average compared with the male normative sample.

## *Interpersonal Scale Comparisons*

There are two interpersonal scales on the PAI. The first of these, DOM, taps the degree to which control in interpersonal relationships is desired. The overall $F$ tests were observed in this analysis to be significant. Follow-up testing revealed that statistically lower means were observed for ICPOs compared with the male normative and the child molester samples. However, no difference was observed between the male

**Table 3.** ICPOs Clinical Scale Elevations Equal or Above 60T and 70T.

| | Elevations ≥ 60T | | Elevations ≥ 70T | |
|---|---|---|---|---|
| | *n* = 35 | (%) | *n* = 35 | (%) |
| PAI clinical scales | | | | |
| Somatic Complaints | 7 | (20.0) | 4 | (11.4) |
| Anxiety | 8 | (23.0) | 3 | (8.6) |
| Anxiety-Related Disorders | 9 | (25.7) | 4 | (11.4) |
| Depression | 12 | (34.3) | 7 | (20.0) |
| Mania | 2 | (5.7) | 1 | (2.9) |
| Paranoia | 9 | (25.7) | 3 | (8.6) |
| Schizophrenia | 9 | (25.7) | 3 | (8.6) |
| Borderline Features | 13 | (37.1) | 9 | (22.9) |
| Antisocial Features | 12 | (34.3) | 3 | (8.6) |
| Alcohol Problems | 6 | (17.1) | 2 | (5.7) |
| Drug Problems | 4 | (11.4) | 3 | (8.6) |

Note: ICPOs = Internet child pornography offences; PAI = Personality Assessment Inventory.

normative and child molester. Samples, suggesting that the lower than average propensity for ICPOs, for control in interpersonal relationships was driving the results. The final scale, WRM, indicates the degree to which interest and comfort in relationships is sought, and on this scale, each of the three samples scored in a similar range.

## *Clinical Scale Elevations*

We also wanted to generate a broader clinical perspective of the offenders in each sample to better inform the types of problems/issues a psychologist in corrections might expect to find when asked to screen or treat these groups of sex offenders during their incarceration. To accomplish this, we considered the overall rate of psychopathology for each offender group, and to produce the fullest picture of this, we examined elevations above 60T and 70T. Morey (2007) has suggested that scores above 70T provide the demarcation for a radical departure from community samples and 60T as increasing the likelihood of difficulties in a given area or generally in daily living. These percentages are broken out for the clinical scales and are presented in Table 3. Visual inspection of this table reveals that BOR features most prominently among the ICPOs with 37% expressing difficulties in this area, and 23% presenting with clinical impairment that would warrant clinical intervention. The same held true for DEP with 34% of the sample experiencing some element of difficulty in this area and 20% presenting with clinically relevant elevations.

## Discussion

Our study confirms in a nontreatment sample of offenders, findings from past studies conducted with ICPOs in treatment, namely, that ICPOs are likely to experience difficulties in interpersonal functioning and mood regulation. Overall, the clinical scale comparisons with the male normative sample from the PAI revealed few differences with ICPOs. The differences that do exist suggest that ICPOs are, on average, more likely to present DEP and BOR which are characterized by an overcontrolled and unassertive stance to the environment. In fact, 20% or more of the inmates in the ICPOs sample produced elevations of $T > 70$ on the DEP and BOR scales. These findings are consistent with the earlier research linking depression and social deficits to ICPOs status (Elliot et al., 2009; Laulik et al., 2007). Further bolstering the presentation of the ICPOs as interpersonally lacking and/or depressive, results from this investigation demonstrate they were less likely than their community-based counterparts to present elevations on MAN, a scale measuring overactivity. This finding suggests that ICPOs present interpersonal and mood regulation issues as potential targets of service need.

The clinical scales also provide information on the substance abuse treatment needs of ICPOs. Despite the very high prevalence of drug and alcohol use disorders generally noted in federal offenders (Weinman, 2011), ICPOs in this sample demonstrated a low incidence of substance use problems. Specifically, ICPOs were found to score lower on the ALC and DRG subscales compared with the child molester sample. Perhaps related to this finding, our data indicate that ICPOs were also lower than the child molesters on the ANT subscale, a broad factor encompassing antisocial behaviors, egocentricity, and a tendency toward stimulus seeking. Viewed together, these finding suggest ICPOs, in comparison with child molesters, tend to present fewer clinically significantly issues related to pervasive patterns of criminal behavior and lifestyle. In other words, the clinical needs of ICPOs tend to cluster not in the domain of criminality and antisociality, but rather in the socioaffective area.

Our analysis of the sample's scores on the treatment and interpersonal scales expands on this theme. Consistent with earlier research, ICPOs were found to report low levels of expressed aggression or hostility. Not only were they lower than the child molester sample but they also had significantly lower levels of aggression than the male normative sample. In addition, ICPOs were lower in dominance than either child molesters or the male normative sample. Like the child molesters, the ICPOs reported higher than normal levels of stress. These results reinforce the characterization of ICPOs as higher in their socioaffective needs (undersocialization, unassertiveness, and poor methods of emotional coping) but relatively low on issues related to criminal lifestyle, antisocial cognitions, attitudes, and behavior patterns.

With this perspective on the psychological functioning of ICPOs, we are better equipped to address the crucial question of how ICPOs can be most effectively served by treatment programs. Perhaps the most critical question is whether ICPOs require a specialized treatment protocol that focuses on treatment targets unique to that

population, or whether existing treatment protocols, developed for use with contact sexual offenders, can be successfully adapted for use with ICPOs. Our study adds to the growing consensus that ICPOs as a group display a pattern of psychological service needs which, although distinctive to this subpopulation, does generally correspond to established dynamic risk factors for contact sexual offenders.

Programs for contact sexual offenders are designed to address dynamic risk factors falling into three broad domains: socioaffective deficits, criminality, and sexual deviancy. Our research strongly confirms the importance of the first of these domains for ICPOs. For many ICPOs, effective treatment should address (a) the acquisition of new ways to self-regulate negative mood states without relying on child pornography as a method of emotional self-management and (b) the development of a set of interpersonal skills, including assertiveness, communication skills, conflict resolution, and self-confidence improvement with the goal of building a positive social network and achieving healthy intimate relationships. In this light, Middleton's (2004) proposed treatment model for ICPOs places an appropriate emphasis on the development of interpersonal and emotional self-regulation skills, an approach similar to the more comprehensively documented protocol by Quayle, Erooga et al. (2006). Our research goes further in suggesting that a substantial minority of ICPOs may have clinically significant mood or personality disorders that may call for utilization of modalities and techniques such as dialectical behavior therapy, cognitive therapy for depression or anxiety, and psychopharmacology interventions.

With regard to the criminality domain, our research supports the growing consensus that ICPOs, as a group, are less frequently found to have antisocial peer networks, criminal lifestyle issues, or attitudes and beliefs supportive of criminal offending (Eke, Seto, & Williams, 2011). This may mean that they are less likely than contact offenders to require cognitive-behavioral interventions targeting criminal thinking patterns or lifestyle factors. Similarly, ICPOs appear less likely to require interventions for substance use disorders, impulsivity, and problems with anger or hostility, all factors associated with antisocial patterns of behavior. Finally, because the PAI does not assess deviant sexual interests, our findings offer no insight into treatment needs of ICPOs in this area. However, earlier research informs us that ICPOs manifest significant sexual deviancy (Seto et al., 2006), perhaps even to a greater extent than child molesters. Therefore, techniques for the management of deviant sexual arousal should figure prominently in treatment for ICPOs (see Quayle et al., 2006). In sum, our findings suggest that dynamic risk factors presented by ICPOs and contact offenders overlap considerably, but the former population require greater prioritization of those treatment targets related to socioaffective functioning.

Another question with important practical significance is whether ICPOs should receive treatment in specialized programs, or whether they can be successfully coprogrammed with non-ICPOs. We suggest that although coprogramming may be possible, several important caveats would require immediate consideration. First, our findings suggest that a substantial proportion of ICPOs present with clinically significant problems in the socioaffective domain that may not be the primary focus of treatment with

contact sexual offenders. Conversely, many contact offenders will require intervention to address criminal thinking, criminal lifestyle, substance abuse, and other areas associated with the cluster of dynamic risk factors related to criminality; these issues may not be clinically significant for most ICPOs. Of course, to the extent that treatment planning is fully individualized and based on thorough assessment of each participant's profile of dynamic risk factors, such a divergence does not preclude coprogramming ICPOs with contact offenders. It is worth pointing out, however, that whereas "one size fits all," treatment models are never optimal with any treatment population; in the case of ICPOs, such programming will likely result in many participants receiving unnecessary treatment modules which, at best, represent a waste of resources, and at worst, may have a negative effect on treatment outcomes.

A second caveat concerning coprogramming ICPOs and contact offenders is that given the tendency of ICPOs toward low dominance and low criminality, care must be taken to ensure the maintenance of a treatment milieu in which these participants are not compromised by contact sexual offenders, who tend to be higher in aggression, dominance, and antisocial behavior patterns. In short, our findings can be read as a reaffirmation of the importance of core elements of effective offender rehabilitation programs (Andrews & Bonta, 2010): individualized assessment to identify appropriate treatment targets for each participant and the availability of a suite of cognitive-behavioral interventions addressing the range of relevant dynamic risk factors for sexual offenders.

Moving away from these issues pertaining to pathology and criminality briefly, we also found that ICPOs appeared to identify a need for change as measured by RXR. The lower treatment rejection scores among both groups of sexual offenders compared with the community sample suggest a greater propensity to recognize problematic behaviors and begin consideration of the process of change. However, this finding was tempered by the work of Morey (2007) who notes that, in the standardized clinical sample, the mean *T*-score was 40T. These lower average scores around 40T are indicative of a greater propensity to recognize problematic behaviors and begin consideration of the process of change. Whereas the male normative comparisons seem appropriate for an examination of rates of psychopathology, for the purposes of understanding personality and treatment planning, it might be necessary to use the clinical standardization (Morey, 2007) or the corrections norms (Edens & Ruiz, 2005).

Several important observations can be made between the present findings and the earlier work of Laulik et al. (2007). First, the two samples were drawn from roughly the same time frame. The Laulik sample, however, was from the United Kingdom, and all but one participant in the sample were assessed during their participation in a 5-year community-based treatment program. The current study has U.S. citizens, the participants were not in treatment, and they were, on average, 10 years older than the UK sample. Despite these differences, there was remarkable similarity between the sets of study findings. In each study, no significant differences were observed on the clinical scales for SOM, ANX, ARD, PAR, ALC, and DRG. Next, significant mean differences were observed for ICPOs in each study on DEP, MAN, BOR, AGG, STR, and RXR.

In each study, the differences were in the same direction. Where the results between the two samples were dissimilar, the differences in age might have been related to the finding, or perhaps due to the use of male only norms opposed to the general community norms.

Although the current study has benefited from a rigorous design that included two incarcerated nontreatment samples of sexual offenders, it is not without limitations. First, measures on participants' use of the Internet, their sexual deviance, or other types of offending behaviors were not available to the research team. For this reason, we cannot address the difference between the two groups on use of the Internet, overall levels of sexual deviance, or other aspects of their offending. This remains a critical component to any discussion of etiology as well as treatment for these offenders. Second, the correlational nature of this study design is limiting and does not allow for the full dynamic process of offending behaviors to be captured. Simply understanding differences at one point in time sets the stage for developing a deeper understanding of treatment and of future offense risk factors. However, it does not inform the link between offense, risk, and recidivism—questions which remain critical to this area of study.

In addition to these limitations, several cautions bear mentioning. First, those who have been apprehended convicted and incarcerated for their behavior may not be representative of the larger population of those engaging in the behavior. Although this consideration is relevant to all research on the behavior of criminal offenders, in the case of Internet offending, it warrants special attention due to the relative novelty of the Internet and the rapid change in the social response to it. As Internet sexual offending is studied, extreme caution needs to be exercised not to generalize from an incarcerated Internet offender sample to the total population of online offenders. We can only speculate as to how findings from samples of adjudicated Internet offenders generalize to offenders who have eluded detection (e.g., level of criminal sophistication).

Despite these limitations, our work replicates prior studies and extends our understanding of ICPOs. Our study provides evidence that this emerging group does present with clinical qualities and management challenges that may be different from the larger correctional population in many respects. Future research will still need to refine our understanding of unique challenges posed by ICPOs to clinical staff (e.g., management of mood disorder, risk of suicide) and correctional staff (e.g., potential for sexual misconduct, potential for being targeted by other offenders). More specifically, the process of change and reduction of recidivism for ICPOs await further exploration. Although much has been learned anecdotally about ICPOs, and some have evolved this understanding into theories that link to the etiology of the behavior, there remains a need to supplement this knowledge with empirical research that will bear scrutiny of the scientific community and will contribute to a broader understanding of the Internet-only sexual offender.

## Authors' Note

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## Notes

1. In summary, over an 18-month period, operational mental health data from 2,855 male and female offenders were collected to form the full sample for this project. The offenders were all newly committed and fluent in either English or Spanish. The sample was drawn from 14 different prisons representing three security levels across five geographic regions of the United States. From this initial sample, 1,692 offenders consented to complete an assessment battery that included personality testing. No incentives were offered for participation in the research and approval was received from the Bureau of Prisons national research review board.
2. Participants who responded inconsistently or who were inattentive when completing the Personality Assessment Inventory (PAI) were screened consistent with protocols described by Morey (2007). Participants scoring outside the recommended *T*-score range on the inconsistency scale (ICN > 73) or the infrequency scale (INF >75) were removed, creating the total sample of 61 offenders for the current study.
3. An operations-based data tool (SENTRY) was used to produce demographic data and also to initially screen offenders for the sample based on indicator of prior or current sexual offense conviction. In addition, the Presentence Investigation (PSI), consisting of a detailed narrative review of an offender's offense history as well as other significant psychosocial factors, was used to confirm the sexual offense and further refine the nature of the offenses in the service of delineating the samples.

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