MCMI-III Personality Disorder Elevations Among Filipino Male Substance Abusers Committed in Residential Facilities: Comparisons with a Non-Clinical Sample

Antover P. Tuliao*, Ferdinand M. Villafuerte II, Roger D. Davis, Chester Copertino Y. Dagus, Johann Andrew Sagmit, Rowena Guiang, Joanne Osea, Mary Grace De Guzman, Anthony Grecia, Maria Cristina Samaco, and Mary Rachelle R. Wapano
Ateneo De Manila University

Studies on the relationship between personality disorders (PD) and substance use disorders (SUD) suggest the role of PDs in the treatment of addiction. However, the research on the comorbidity of PDs among Filipinos with SUD is lacking. The present study serves as preliminary research on the subject by using the third edition of the Millon Clinical Multiaxial Inventory (MCMI-III) to compare PD elevations between a non-clinical group and a group of Filipinos with SUD. Participants include 285 males who were part of a study on personality and personality disorders, and 41 males who are part of a study about relapse among Filipinos with SUD. By utilizing a non-parametric Mann-Whitney Test, it is found that all PDs measured by the MCMI-III, with the exception of Narcissistic and Compulsive PDs, have significant differences between the two groups. Direction for further studies is discussed.

Keywords: personality disorder, substance use disorder, addiction, MCMI-III

Treatment of drug addiction or substance use disorders (SUDs) is a challenging endeavor. For one, contemporary thinking treats SUDs as a chronically recurring disease, and chances of relapse despite treatment remain very high, which are estimated to be around 75% to 98% (Brandon, Vidrine, & Litvin, 2007). Furthermore, continued recovery from SUDs requires an

*E-mail: antover.tuliao@gmail.com
appreciation of a myriad of factors that contribute to the maintenance of addiction and the prevention of relapse (Witkiewitz & Marlatt, 2004). With an estimated four million Filipino illicit drug users (Balana, 2002), there is a need to improve interventions in light of the mentioned complications to treatment. As such, this paper aims to inform the practice and improve the treatment of SUDs in the Philippines by investigating one factor that greatly impedes intervention—personality disorders (PDs).

Personality disorders, loosely defined, are inflexible and maladaptive responses to one’s cognitions, emotion, and/or impulse control which results in significant impairment in personal, social, and occupational functioning (Staussner & Nemenzik, 2007; Taylor, 2005). In one U.S. epidemiological study, although only about 15% of adults meet the DSM-IV diagnostic criteria of personality disorders, 29% of those with alcohol use disorder and 48% of those with drug use disorder were found to have co-occurring personality disorders (Grant et al., 2004). The most prevalent comorbid PDs are reported to be in the erratic/dramatic cluster (Cluster B) which includes Histrionic, Narcissistic, Borderline, and Antisocial PDs (Ross, Dermatis, Levounis, & Galanter, 2003). Although Borderline and Antisocial PDs were the most prevalent, comorbid Cluster A (Paranoid, Schizoid, and Schizotypal PDs) and Cluster C (Avoidant, Dependent, and Obsessive-Compulsive) PDs were also observed, with 21–38% and 20–33% prevalence rates, respectively (Landheim, Bakken, & Vaglum, 2003; Morgenstern, Langenbucher, Labouvie, & Miller, 1997).

The primary personality disorder model and the common factor model explain the high comorbidity between SUDs and PDs (Ralveski & Petrakis, 2007). The primary personality model posits that certain maladaptive personality constellations influence the development of SUDs. Individuals with personality characteristics that are predisposed towards negative affectivity abuse substances as means of self-medication and tension-reduction. This is salient among PDs whose main characteristic is emotional dysregulation like Borderline PD. On the other hand, individuals with antisocial and impulsive traits have problems regulating their behavior in accordance to social norms, which predisposes them to various socially-deviant activities, including substance abuse. This hypothesis explains the high comorbidity of SUDs with Antisocial PDs. Finally, individuals with marked excitement, sensation, risk, or pleasure-seeking traits abuse substances as a means to satisfy the craving for novelty. The common factor model differs slightly from the primary personality disorder model in that the former does not ascribe causality, instead posits that the comorbidity between PDs and SUDs are brought about by underlying common
environmental and/or genetic factors. Despite the etiological nuances, both models emphasize the inextricable link between PDs and SUDs.

The studies on the relationship between PDs and SUDs have brought some to suggest that personality and PDs should be considered in the treatment of addictions (Staiger, Kambouropoulos, & Dawe, 2007). Indeed, research has shown that PDs predict poorer treatment outcomes and higher relapse rates (Haro et al., 2004; Verheul, van den Brink, & Hartgers, 1998). There is, however, a gap in the literature on the comorbidity rates of PDs among Filipinos with SUD, if so, which PD, and the role played by PDs in SUD treatment. Furthermore, there is reason to believe that there are ethnocultural variations in the factors in the treatment of SUD. For instance, although functional social support (perceived or actual availability of both emotional and instrumental support, provision and exchange of a sense of belongingness, enhancement of self-esteem, and provision of tangible and intangible aid) is crucial in relapse prevention (Dobkin, De Civita, Paraheakis, & Gill 2002), it may not be essential for Filipinos (Tuliao & Liwag, in press). This bolsters the need to investigate factors relevant to SUD recovery in the Philippine context.

Given the dearth of knowledge on the prevalence and role of PDs in SUDs among Filipinos, this paper intends to serve as a preliminary research on the topic. In particular, this brief report aims to uncover which PDs are salient among Filipino males with SUDs, and to compare their PD scores with a sample of non-clinical male adults. The emphasis on males is influenced by statistics showing that females are less likely to abuse substances (Green, 2006), and that gender differences exists in personality, in the prevalence of SUDs and PDs, and in the co-occurrence of PDs and SUDs (Compton et al., 2000; Green, 2006; Landheim, et al., 2003; Weijers et al., 2003).

On the other hand, a non-clinical comparison group is deemed essential due to a lack of an adequate culturally-valid criterion of what constitutes a PD. Most, if not all, PD diagnostic standards are derived from western samples and western conceptualizations of what constitutes an “abnormal” personality. PD diagnosis, which are essentially based on the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association [APA], 2000) developed by the American Psychiatric Association, or the International Statistical Classification of Diseases and Related Health Problems (ICD-10) espoused by the World Health Organization, is based on a set of criteria which assesses patterns of behavior and inner experiences that deviate from the expectations of the person’s culture (Davison & Neale, 2001). Because what constitutes appropriate
behavior is culturally subjective, some diagnostic criteria, and even PDs, may or may not be applicable cross culturally. For instance, in the third version of the Chinese Classification of Mental Disorders (CCMD-3), the Borderline Personality Disorder is rejected as a valid diagnostic category and was replaced by Impulsive Personality Disorder (Zhong & Leung, 2009). It is, therefore, important to have some criteria as to what behaviors are considered by the culture maladaptive. Comparing the scores of a SUD group to a non-clinical sample gives, at least, provides that benchmark.

**METHOD**

**Participants**

In order to explore the prevalence of PDs among Filipinos with SUDs, 41 males ($M = 31.72$, $SD = 8.29$) undergoing treatment in a residential facility were surveyed. Most of the participants ($n = 31$) were part of a research on relapse among Filipinos with SUDs (Tuliao & Liwag, in press) and were recruited from a government-run treatment center, whereas 10 were from a private drug rehabilitation center. All participants were also diagnosed to have SUD by a government accredited physician as Philippine government policy requires it prior to being committed to a residential treatment facility. After validity conditions were applied, i.e., more than 10 questions unanswered and Validity index with a score greater than 1, a total of 34 respondents remained for further analysis. Other validity conditions such as Scales X (Disclosure Index), Y (Desirability Index) and Scale Z (Self-Debasement Index) were dispensed with at the recommendation of one of the authors of this paper (Roger D. Davis), who incidentally was co-author of the primary instrument used in this paper, stating that the said validity conditions might not be applicable to the Philippine context. From the participants that were retained, 24 (71%) were polysubstance abusers, eight abused methamphetamine (shabu) only (24%), and two indicated alcohol only as their preferred substance (5.90%).

The PD scores of the SUD group were subsequently compared to 282 male non-clinical sample. These male participants were originally part of a larger research on personality and personality disorders which consisted of 828 Filipino adults (64.50% female) with ages ranging from 18 to 50 years old ($M = 20.46$, $SD = 4.55$). Majority of the participants (91.3%) was from various universities in the Philippines and participated for extra course credits, whereas the rest (8.7%) were from various workplace settings. From this larger sample, we culled 285 males with a mean age of 20.85 ($SD = 5.43$).
After applying the same validity conditions as the SUD group, 282 non-clinical male participants remained.

One limitation of the sample selection for the non-clinical group was the loose definition of “non-clinical” in this study, i.e., that the participants are not undergoing any psychiatric treatment at the time of measurement. In other words, the non-clinical sample might include individuals with PDs. The aim of this study, however, was to compare PD scores of a known clinical group (individuals with SUD) to a “normal” group, and studies have shown that a small percentage of the population have PDs (Grant, et al., 2004). Therefore the presence of PDs in some non-clinical participants was considered acceptable and still paralleled the “normal” population. Another weakness of the sampling design of this study was the inability to match pertinent demographics (e.g., age, education, socioeconomic status, among other variables) of the SUD and non-clinical group.

Measures

Personality disorders were operationalized and measured using the Millon Clinical Multiaxial Inventory (MCMI-III; Millon, Davis, & Millon, 1997), a 175-item, true or false, instrument that measures various Axis I clinical syndromes and Axis II personality disorders. There were 14 PDs accounted for by the MCMI-III (refer to Table 1 for a list), and alpha coefficients were reported to range from .66 to .89. Four PDs in the MCMI-III, however, were not included in the DSM-IV (APA, 2000)—the Depressive, Sadistic (Aggressive-Sadistic), Negativistic (Passive-Aggressive), and Masochistic PDs.

Unlike common assessment instruments that rely on T score transformations that are reliant on a norm, the MCMI-III uses Base Rate (BR) scores which are derived from the relative frequency of occurrence of a particular syndrome. Four categories were used based on BR scores: BR scores of 85 and higher are indicative of a presence of personality disorder, BR scores of 75 to 84 suggests presence of the syndrome, BR scores of 60 to 74 indicate presence of some symptoms but not necessarily indicative of pathology, and BR scores of 59 and lower suggests lack of symptoms or presence of syndrome. These BR and their subsequent categorizations were calibrated to reflect the prevalence of the disorders in the United States. Because this study was conducted in the Philippines, where the frequency of occurrence of PDs are unknown, it was deemed prudent to use raw scores for comparing between the SUD and non-clinical group.
RESULTS

This study aimed to uncover PDs that are salient in a small sample of Filipinos with SUD undergoing residential treatment, and how these PD elevation fare in comparison with a non-clinical sample. Results suggested that almost half (44%) of the SUD group had significant Antisocial PD (BR > 85) as indicated by the MCMI-III scores, followed by Depressive (41%) and Dependent PD (35%). Because of the lack of normality and the disproportionate sample sizes between the SUD and non-clinical groups, a non-parametric Mann-Whitney Test was utilized to test differences among the groups. Compared to the non-clinical sample, the SUD sample had significant elevations in all the PDs except for Narcissistic PD and Compulsive PD (refer to Table I). Histrionic PD, however, was significantly lower for the SUD group compared to the non-clinical group.

DISCUSSION

Although some results of the study are not surprising, such as the high incidence of Antisocial PDs among Filipino males with SUDs (Landheim et al., 2003; Morgenstern et al., 1997), some are unexpected. First, there are significant elevations and prevalence of MCMI-III PDs that are not included in the DSM-IV list of PDs. These include Depressive, Dependent, Sadistic, and Masochistic PDs. Second, except for Narcissistic and Compulsive PDs, all PDs have significant divergence compared with the non-clinical counterparts. Tentatively, this may suggest that the SUD group have significant personality dysfunction across almost all PDs, a conclusion that is counterintuitive. However, by adopting the paradigm that SUD is not a one-dimensional pathology but, in fact, consists of subgroups with varied characteristics, a coherent explanation can be arrived at to stitch together the disparate results.

Using cluster analysis, MacMahon (2008) suggests that individuals with addictive disorders can be grouped into four clusters: antisocial, neurotic, subclinical, and high psychopathology. The Antisocial subgroup is characterized by mean BR > 85 in the Antisocial, Sadistic (Aggressive-Sadistic), Negativistic (Passive-Aggressive), and Borderline PDs. A cursory examination of these PDs indicates inclinations towards social deviance, aggression, and hostility, and problems with impulsivity and behavior control. This subtype is in parallel to other models of PD comorbidity among SUDs suggesting the presence of a socially deviant and sensation seeking subtypes
Table 1
Differences between the Non-Clinical and SUD Groups with Respective BR Elevations

<table>
<thead>
<tr>
<th>SCALE</th>
<th>Non-Clinical Group (n = 282)</th>
<th>SUD Group (n = 34)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clinically Significant (BR 75-84)</td>
<td>Personality Disorder (BR ≥ 85)</td>
</tr>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>n (%)</td>
</tr>
<tr>
<td>1 Schizoid</td>
<td>6.91 (4.27)</td>
<td>62 (22.00)</td>
</tr>
<tr>
<td>2A Avoidant</td>
<td>6.85 (5.33)</td>
<td>97 (34.00)</td>
</tr>
<tr>
<td>2B Depressive</td>
<td>6.24 (5.50)</td>
<td>80 (28.00)</td>
</tr>
<tr>
<td>3 Dependent</td>
<td>7.49 (5.28)</td>
<td>81 (28.40)</td>
</tr>
<tr>
<td>4 Histrionic</td>
<td>15.24 (4.33)</td>
<td>5 (1.80)</td>
</tr>
<tr>
<td>5 Narcissistic</td>
<td>15.50 (4.04)</td>
<td>38 (13.50)</td>
</tr>
<tr>
<td>6A Antisocial</td>
<td>7.22 (4.45)</td>
<td>40 (14.20)</td>
</tr>
<tr>
<td>6B Sadistic</td>
<td>9.28 (5.25)</td>
<td>37 (12.80)</td>
</tr>
<tr>
<td>7 Compulsive</td>
<td>14.67 (4.68)</td>
<td>3 (1.10)</td>
</tr>
<tr>
<td>8A Negativistic</td>
<td>8.85 (5.70)</td>
<td>80 (28.40)</td>
</tr>
<tr>
<td>8B Masochistic</td>
<td>5.32 (4.83)</td>
<td>105 (36.90)</td>
</tr>
<tr>
<td>S S Hizotypal</td>
<td>6.94 (5.57)</td>
<td>51 (18.10)</td>
</tr>
<tr>
<td>C Borderline</td>
<td>7.25 (5.52)</td>
<td>38 (13.50)</td>
</tr>
<tr>
<td>P Paranoid</td>
<td>7.86 (5.42)</td>
<td>25 (8.90)</td>
</tr>
</tbody>
</table>

*p < .01, **p < .001.
Furthermore, personality research also finds associations between SUDs and high sensation seeking, low conscientiousness, and low agreeableness (Hopwood et al., 2007; Malouff, Thorsteinsson, Rooke, & Schutte, 2007). Predominant traits of impulsivity also explain the non-elevation of Compulsive PD, which essentially taps over adherence to social norms.

The Neurotic cluster, on the other hand, is typified by negative affectivity, negative self-image, and low self-esteem, and is characterized by moderate elevations in Masochistic (Self-defeating), Avoidant, Dependent, and Schizoid PDs, and Axis I Dysthymia Disorders (Chronic Depression). This subgroup is consistent with personality research emphasizing the importance of Neuroticism or inclination towards negative affect (Hopwood et al., 2007; Malouff et al., 2007), and with models of PD comorbidity in SUDs (Ralveski & Petrakis, 2007).

The high psychopathology subgroup is characterized by high elevations (BR > 85) on most PD and Axis I / clinical symptom syndrome scales. Associations with comorbid psychiatric diagnoses including Post Traumatic Stress Disorder, greater depression, more suicide attempts, and more previous psychiatric and nonresponsive drug treatments are also found. This cluster is, basically, a more severe form of the neurotic and antisocial subgroups, with greater mood instability and greater impulsive acting out behaviors. On the other end of the spectrum is the subclinical cluster which includes individuals with SUDs with no other significant elevations in the PD or in the Axis I clinical symptom syndrome scales. These individuals, on average, have the least family, psychiatric, and addiction-related problems, and are more functional compared to the other subtypes.

In summary, individuals with SUDs have different subtypes, each with their concomitant characteristic. This could explain several PD elevations found, i.e., the sample in this study was constituted by individuals coming from different subtypes. This presence of different SUD subtypes, and its prevalence among Filipinos, can be a viable avenue for future research. Integrating McMahon's typologies, personality and PD correlates of SUDs, and the results of this study, the importance of several personality traits are highlighted: impulsivity, sensation-seeking, negative affectivity/Neuroticism, and social deviance; abnormal elevations in one or a combination of these personality traits could initiate or exacerbate SUDs. Cognizance of these traits is made even more important given the planned shift from a criteria-based to a trait-based diagnosis of PDs in the DSM-V (American Psychiatric Association, 2010). Given this transition, future research on the role of PDs in SUDs should focus more on the role of mentioned personality traits.
Although far from being definitive, this study does point to the importance of conducting future research in the role of PDs in the etiology and treatment of SUDs among Filipinos. Despite having such a small sample, the results do show possible co-occurrence of PDs among Filipinos with SUDs, which necessitates a larger epidemiological study on their prevalence and comorbidity rates. This study can also be improved by matching relevant demographics of the SUD and non-clinical group, especially age, socioeconomic status, and education level. In the present study, the non-clinical group is composed mostly of college students and college graduates, whereas the SUD group is older and have varied educational and socioeconomic background. Aside from the number of participants, another limitation of this study is the sole reliance on the MCMI-III to operationalize and measure PDs, which can be overcome by adding varied instruments. The diagnosis of PD NOS (not otherwise specified) or the possibility of having two or more PDs is also not considered in this study. Finally, gender differences exist in SUDs and PDs which prompted this study to focus only on males. Future research can expound the literature by shifting the focus towards women. Other studies can also focus on how PDs affects initiation to drug use and preferred drug of choice (e.g., alcohol, marijuana, methamphetamine, among other things), treatment dynamics and intervention outcomes, how current SUDs treatment in the Philippines are mindful of PDs, and how current SUD treatment can be improved by integrating PD therapies.

Though more research is needed, these preliminary results could point to important implications to treatment of SUDs in the Philippines. Majority of SUD treatment in the Philippines, especially the residential setting, utilize the Therapeutic Community modality (Department of Health – Bureau of Health Facilities and Services, 2005) which, in principle and practice, do not actively treat PDs nor are mindful of it in treatment (National Institute on Drug Abuse, 2002). Although little information is known about private practitioners in the Philippines, PDs are also not directly dealt with in contemporary individual SUD treatments, such as cognitive-behavioral treatments (Carroll, 1998). As suggested by some (Staiger et al., 2007), addiction counselors and psychotherapists should be mindful of the presence of PDs among their clients, both in assessment and intervention proper, given its comorbidity with SUDs. Specifically, attention should also be given to how personality and personality disorders aggravate the illness and hamper the therapy, in addition to treating SUDs. This fact is made even more salient as studies suggest that PDs have significant effects in SUD treatment (Haro et al., 2004; Verheul et al., 1998). It is important to note, however, that more research is still needed, and these recommendations are still speculative.
REFERENCES


**AUTHOR NOTE**

Correspondence concerning this article should be addressed to Antover P. Tuliao, Department of Psychology, Ateneo de Manila University, Loyola Heights, Quezon City, Philippines. E-mail: antover.tuliao@gmail.com.