

The Prevalence of Personality Disorder in a Psychiatric and Substance Abuse Population in Jamaica

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ABSTRACT

Objective: To determine the prevalence of personality disorders in patients admitted to the psychiatric wards of the University Hospital of the West Indies (UHWI).

Method: Patients ($n = 100$) sequentially admitted to the psychiatric wards of the UHWI were assessed for personality disorder using the gold standard of a consultant assessment using the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, text revision (DSM IV-TR) diagnostic criteria for personality disorder; the International Personality Disorder Examination Screening questionnaire (IPDE-S), and the Jamaica Personality Disorder Inventory (JPDI).

Results: The three assessment instruments identified a prevalence of personality disorder in the cohort of patients of 51% consultant DSM-IV-TR assessment, 57% JPDI and 86% IPDE-S. The prevalence rate identified by the IPDE-S was significantly higher than the local instruments used ($p < 0.000$).

Conclusions: The prevalence of personality disorder assessed by the JPDI and the consultant DSM IV-TR instruments in Jamaica is comparable to the prevalence rate of studies in other countries in a similar population.

Keywords: DSM IV-TR, Jamaica Personality Disorder Inventory (JPDI), Jamaican psychiatric population, Jamaican substance abuse population, personality disorder

Prevalencia de los Trastornos de la Personalidad en una Población Psiquiátrica y Adicta al Abuso de Sustancias en Jamaica

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RESUMEN

Objetivo: Determinar la prevalencia de los trastornos de la personalidad en pacientes ingresados en las salas de psiquiatría del Hospital Universitario de West Indies (UHWI).

Método: Los pacientes ($n = 100$) secuencialmente ingresados a las salas de psiquiatría del UHWI, fueron evaluados en relación con trastornos de personalidad, utilizando los criterios de diagnóstico del estándar de oro de la evaluación consultante con el Manual Diagnóstico y Estadístico de los Trastornos Mentales, cuarta edición revisada (DSM-IV-TR), el cuestionario de tamizaje del Examen Internacional de Trastornos de la Personalidad (IPDE-S), y el Inventario de Trastornos de la Personalidad en Jamaica (JPDI).

Resultados: Los tres instrumentos de evaluación identificaron una prevalencia de trastornos de personalidad en la cohorte de pacientes como sigue: 51% en la evaluación del consultante del DSM-IV-TR, 57% en el JPDI, y 86% en el IPDE-S. La tasa de prevalencia identificada por el IPDE-S fue significativamente mayor que la de los instrumentos locales ($p < 0.000$).

Conclusiones: La prevalencia del trastorno de personalidad evaluado por el JPDI y los instrumentos de consultante de DSM IV-TR en Jamaica, es comparable a la tasa de prevalencia de estudios en otros países en una población similar.

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Palabras claves: DSM IV-TR, Inventario de Trastornos de la Personalidad (JPDI) en Jamaica, población psiquiátrica Jamaicana, población Jamaicana de abuso de sustancias, trastorno de la personalidad

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INTRODUCTION

The presence of personality disorders as co-morbid illness has been recognized to impact negatively on the prognostic outcome of patients (1). The challenge, however, is in the determination of the diagnosis in other clinical disorders with similar phenomenology such as mental disorders and substance abuse (2). The closer the overlap, the more difficult it becomes to delineate the co-existing disorders. This is particularly the case with personality disorder and substance abuse disorder, which share common genetic and environmental factors as well as common behavioural patterns (3), so much so that it has been proposed that substance abuse itself may be a phenomenological variable of personality disorder (4).

Various studies conducted on these populations have had to use different methodological approaches to improve the reliability of the data (5–7). One such method is the multiphase technique of assessment by carrying out separate time independent assessments to minimize the impact of substance intoxication on the findings (7). The use of multiple tools with different approaches to the diagnosis also has been shown to improve on accurate representation of the prevalence rate (7). However, the inclusion of substance-related symptoms has not negatively impacted reliability and Rounsaville (8) found that the clinical profile for personality-disordered patients independent of substance abuse was similar to those patients with personality disorder related to substance abuse.

Most studies have found prevalence rates of approximately half to two thirds of a substance abuse population having personality disorder (5–8). Currently, there are no studies of personality disorder in a Jamaican psychiatric or substance abuse population.

SUBJECTS AND METHOD

A total of 100 patients between the ages of 18 and 81 years were recruited from the psychiatric mental health and substance abuse wards. Patients were selected from the consecutive admissions to the wards that were able to participate in the study. Patients were excluded if they were unable to give account of their usual self and were unable to understand and respond to the interview process.

Diagnostic measures

Jamaica Personality Disorder Inventory (JPDI): The JPDI is a 38-item interviewer administered questionnaire that was developed by The University of the West Indies, Section of Psychiatry, as a screening tool to identify the probability of being diagnosed with a personality disorder. Taking approxi-

mately 30 minutes for administration, the JPDI is intended to be linguistically simple and relevant to the reconceptualization of personality disorder. The JPDI has demonstrated reliability, and criterion-related and discriminant validity (9).

International Personality Disorder Examination Screening questionnaire (IPDE-S): This is a 77-item self-report instrument that detects the presence or absence of a personality disorder (10). The IPDE was validated for use in the Jamaican population in 2004 (11).

Clinical interviews: The clinical interview served as the gold standard for the diagnosis of personality disorder. One-on-one interviews with the patients were done by a qualified psychiatrist and included questions about the patient's childhood, school and work history, past and present interpersonal relationships, impulse control, reality testing and affect. A checklist of the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, text revision (DSM IV–TR) criteria for the diagnosis of personality disorder was administered at the end of each interview.

Diagnostic methods

A member of the clinical team, either a senior psychiatry resident or a senior clinical psychology student administered the JPDI and the IPDE-S. On the same day, a consultant psychiatrist who was blind to the results of the previous instruments conducted a clinical interview based on the DSM IV-TR (12) guidelines to assess patients for the presence of a personality disorder. These three tools were employed to provide greater accuracy in the assessment of personality disorder in the Jamaican patients.

Statistical analysis

The Statistical Package for the Social Sciences (SPSS) version 17.0 was used for all statistical analysis. Spearman's rho correlations were done to eliminate chance attributions between the three instruments. Chi-squared analysis was used to assess the differences in the prevalence rates of patients seen within a range of sociodemographic characteristics.

RESULTS

A Spearman's rho correlation was done to determine the relationship between the three instruments used to diagnose personality disorder in the study population. The consultants' opinion, which is the gold standard, correlated moderately with the JPDI ($r = 0.598$, $p < 0.001$) and had a

weak correlation with the IPDE-S ($r = 0.348, p < 0.001$). The JPDI and the IPDE-S had a moderate correlation ($r = 0.432, p < 0.001$). The IPDE Screening tool found 44 (22%) patients not having a diagnosis of personality disorder and of these patients, the JPDI only diagnosed one person as having a personality disorder and the consultant's assessment two persons.

Prevalence of personality disorder

The prevalence of personality disorder in the entire sample ranged from 51% to 86% depending on the assessment method used (Table 1). The prevalence for the psychiatric

Table 1: Prevalence of personality disorder by population and assessment instrument

| Ward (n) | Consultant PD n (%) | IPDE PD n (%) | JPDI PD n (%) |
|-------------------------|---------------------|---------------|---------------|
| Ward 21 (58) | 25 (43.1) | 46 (79.3) | 28 (48.3) |
| Detox (42) | 26 (61.9) | 40 (95.2) | 29 (69.0) |
| Total psychiatric (100) | 51 (51) | 86 (86) | 57 (57) |

$p < 0.000^*, p > 0.05^{**}$

PD = personality disorder, JPDI = Jamaica Personality Disorder Inventory, IPDE-S = International Personality Disorder Examination Screening questionnaire

ward ranged from 43.1 to 79.3% while that of the substance abuse ward ranged from 61.9 to 95.2%.

The prevalence rate of personality disorder for the entire population detected by the JPDI was similar to those identified by the consultant's DSM IV-TR assessment, whereas the IPDE identified a higher prevalence rate. The rate identified by the JPDI and the consultant's DSM IV-TR assessment was comparable ($p > 0.05$) to those detected internationally in similar populations using traditional assessment tools (Table 2).

Demographics

These participants were between the ages of 18 and 81 years with a mean age 37.11 years and standard deviation of 12.06 years. Age was divided into three age groups 18–30, 31–40 and 41 years and over (Table 3).

There was a significant difference for age in the prevalence of personality disorder detected only by the JPDI as there was a higher prevalence in the younger group and the rate decreased as the age increased. The contingency coefficient of determination for the bivariate test was weak for all three tools in this population (Table 4).

The distribution of gender was 61 (61%) males and 39 (39%) females. There was significant difference for gender in the prevalence of personality disorder, with males having

Table 2: Local and international personality disorder prevalence rates

| Study | Country | Population | Instrument | Prevalence |
|--|---------|--|--|------------|
| Nace, Davis and Gaspari, 1991 (5) | USA | Private psychiatric hospital | Multiphase clinical interview | 57% |
| Zimmerman, Rothschild and Chelminski, 2005 (7) | USA | Psychiatric outpatients | Structured Interview for DSM-IV Personality (SIDP-IV) Structured Clinical Interview for DSM-IV (SCID) | 31.4–45.5% |
| Current study | Jamaica | Substance abuse and psychiatric patients | JPDI | 57% |
| | Jamaica | Substance abuse and psychiatric patients | Structured clinical interview (DSM-IV-TR) | 51% |
| | Jamaica | Substance abuse and psychiatric patients | IPDE-S | 86% |

JPDI = Jamaica Personality Disorder Inventory; IPDE-S = International Personality Disorder Examination Screening questionnaire; DSM-IV = Diagnostic and Statistical Manual of Mental Disorders, 4th edition

Table 3: Age distributions

| Age range (years) | Psychiatric and substance abuse n (%) |
|-------------------|---------------------------------------|
| 18–30 | 31 (31) |
| 31–40 | 32 (32) |
| 41 and over | 37 (37) |
| Total | 100 (100) |

Table 4: Prevalence of personality disorder by assessment instrument and by age

| Age (years) (n) | Consultant PD n (%) | IPDE PD n (%) | JPDI PD* n (%) |
|--------------------------------|---------------------|----------------|----------------|
| 18–30 (31) | 19 (61.3) | 29 (93.5) | 24 (77.4) |
| 31–40 (32) | 17 (53.1) | 29 (93.5) | 16 (50) |
| 41–above (37) | 15 (40.5) | 28 (75.7) | 17 (45.9) |
| Total | 51 (51) | 86 (86) | 57 (57) |
| Contingency coefficient | 0.170 | 0.225 | 0.268 |

$p < 0.05^*$

PD = personality disorder, IPDE-S = International Personality Disorder Examination Screening questionnaire, JPDI = Jamaica Personality Disorder Inventory

a higher prevalence than females by all three tools (Table 5). However, the contingency coefficient of determination for the bivariate test was weak for all tools (Table 5).

Table 5: Prevalence of personality disorder by gender

| Gender (n) | Consultant PD* n (%) | IPDE PD* n (%) | JPDI PD* n (%) |
|--------------------------------|----------------------|----------------|----------------|
| Male (61) | 36 (70.6) | 56 (65.1) | 40 (70.2) |
| Female (39) | 15 (29.4) | 30 (34.9) | 17 (29.8) |
| Total (100) | 51 (51) | 86 (86) | 57 (57) |
| Contingency coefficient | 0.068 | 0.116 | 0.027 |

$p < 0.05^*$

The sample population consisted of 38 (38%) persons employed and 62 (62%) unemployed. There was no significant difference for employment status in the prevalence of personality disorder by all three tools. The contingency coefficient of determination for the bivariate test was weak for all three tools (Table 6).

Table 6: Prevalence of personality disorder by employment status

| Employment status (n) | Consultant PD n (%) | IPDE PD n (%) | JPDI PD n (%) |
|--------------------------------|---------------------|----------------|----------------|
| Employed | 16 (42.1) | 34 (89.5) | 18 (47.4) |
| Unemployed | 35 (56.5) | 52 (83.9) | 39 (62.9) |
| Total | 51 (51) | 86 (86) | 57 (57) |
| Contingency coefficient | 0.138 | 0.078 | 0.151 |

$p < 0.05^*$

Of the entire sample, 25 (25.5%) patients were in relationships *versus* 73 (74.5%) of the patients who were not in stable long-term relationships (Table 7). There were missing values for two (1%) patients. There was no significant difference for relationship status in the prevalence of personality disorder by all three tools. The contingency coefficient of determination for the bivariate test was weak for all three tools (Table 7).

Table 7: Prevalence of personality disorder by marital status

| Marital status (n) | Consultant PD n (%) | IPDE PD n (%) | JPDI PD n (%) |
|--------------------------------|---------------------|------------------|------------------|
| In relationship (25) | 11 (44.0) | 22 (88.0) | 13 (52) |
| Not in relationship (73) | 40 (54.8) | 63 (86.3) | 44 (77.2) |
| Total (98) | 51 (52) | 85 (86.7) | 57 (58.2) |
| Contingency coefficient | 0.094 | 0.022 | 0.073 |

$p < 0.05^*$

DISCUSSION

The current study found a rate of 51% to 86% of personality disorder in the patients of the psychiatric wards: Ward 21 and the Detox Unit using the consultant's DSM IV-TR opinion, the JPDI and the IPDE-S. Specifically, the rate was highest among patients diagnosed by the IPDE-S (86%) and lowest by the consultant's DSM IV-TR opinion (51%). The JPDI and the consultant's assessment found prevalence rate comparable to international studies done within similar populations using conventional tools. This suggest that the prevalence of personality disorder in a severely impaired population in Jamaica is consistent with international findings and also implies that more than half of the patients seeking treatment for mental disorders and substance abuse also have co-morbid personality disorders. This has significant public policy implication for the delivery of healthcare in these facilities as the literature suggests that the presence of personality disorder not only worsens prognosis but also increases the psychological burden on the caregivers (1). Our data also imply significant differences in the prevalence rates for gender, as the rate is higher in males. The Cohen's test of strength was weak for all three tools but suggests that similar study should be carried out on a larger population size. The prevalence of personality disorder in the various age categories was also significant and showed higher prevalence rates in the younger groups. This is in keeping with the international finding which suggests stabilization of these disorders in the fourth decade of life (9).

Limitations

(i) The small sample size may have lowered the statistical power of within-group analysis, (ii) the consultants were at different stages of qualification and therefore were not at the same level of experience.

CONCLUSION

All psychiatric and substance abuse populations should be screened for personality disorder as part of standard assessment procedures. The JPDI represents a simple and easy to use screening tool to carry out this assessment. Substance abuse treatment programmes should be designed to deal with the large number of co-morbid personality disordered patients that seek treatment.

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