

The Prevalence of Personality Disorder in a General Medical Hospital Population in Jamaica

J Martin¹, G Walcott², TR Clarke³, EN Barton³, FW Hickling⁴

ABSTRACT

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

Method: Patients ($n = 100$) sequentially admitted to the general medical wards of the UHWI were assessed for the diagnosis of personality disorder using the gold standard of a consultant assessment based on the Diagnostic and Statistical Manual of Mental Disorders, fourth 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 21% consultant DSM IV-TR assessment, 28% JPDI and 70% 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 IPDE-S and the consultant DSM IV-TR instruments in Jamaica is significantly higher than the prevalence rate of studies in other countries.

Keywords: Diagnostic and Statistical Manual of Mental Disorders (DSM) IV-TR, prevalence, personality disorder, Jamaican medical ward population, Jamaica Personality Disorder Inventory, International Personality Disorder Examination Screening Questionnaire (IPDE-S)

Prevalencia de los Trastornos de Personalidad en una Población del Hospital de Medicina General de Jamaica

J Martin¹, G Walcott², TR Clarke³, EN Barton³, FW Hickling⁴

RESUMEN

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

Método: Pacientes ($n = 100$) secuencialmente ingresados en las salas de medicina general del UHWI fueron sometidos a una evaluación encaminada a diagnosticar trastornos de personalidad. Para la misma se utilizó el método estándar de referencia usado en las evaluaciones realizadas por los consultores. Dicho método se basa en los criterios diagnósticos para los trastornos de personalidad, tomados de la cuarta edición revisada del Manual diagnóstico y estadístico de los trastornos mentales (DSM IV-TR), el cuestionario de tamizaje del Examen Internacional de los trastornos de la personalidad (IPDE-S), y el Inventario de los trastornos de la personalidad en Jamaica (JPDI).

Resultados: Los tres instrumentos de evaluación identificaron una prevalencia de los trastornos de la personalidad en la cohorte de pacientes, de 21% con la evaluación DSM IV-TR de los consultores, 28% con el JPDI, y 70% con el tamizaje del IPDE-S. La tasa de prevalencia identificada por el IPDE-S, fue significativamente mayor que la de los instrumentos locales usados ($p < 0.000$).

From: ¹Section of Psychiatry, Department of Community Health and Psychiatry, The University of the West Indies, Kingston 7, ²South East Regional Health Authority, Kingston and St Andrew Public Health Service, 1 Marescaux Road, Kingston 5, ³Department of Medicine, The University of the West Indies, Kingston 7 and ⁴Caribbean Institute of Mental Health and Substance Abuse, The University of the West Indies, Kingston 7, Jamaica, West Indies.

Correspondence: Dr J Martin, Section of Psychiatry, Department of Community Health and Psychiatry, The University of the West Indies, Kingston 7, Jamaica, West Indies. E-mail: jacqueline.martin02@uwimona.edu.jm

Conclusiones: *La prevalencia de los trastornos de la personalidad, evaluada por el inventario JPDI y el tamizaje del IPDE-S, así como por los instrumentos DSM IV-TR de los consultores en Jamaica, es significativamente mayor que la tasa de prevalencia en los estudios de otros países.*

Palabras claves: DSM IV-TR, prevalencia, trastornos de la personalidad, población de las salas médicas de Jamaica, Inventario de los trastornos de la personalidad en Jamaica, cuestionario de tamizaje del Examen internacional de los trastornos de la personalidad (IPDE-S)

West Indian Med J 2013; 62 (5): 464

INTRODUCTION

The presence of personality disorder impacts the course and outcome of psychiatric and non-psychiatric disorders (1) and may impair the disordered patient's ability to receive care (2). The identification of prevalence rates of personality disorder generally, and specifically in clinical populations, would provide evidence to support the need for routine screening to be done for personality disorders in these clinical populations. Epidemiological studies and national population surveys done in the United States of America, Canada, New Zealand and Europe have indicated prevalence rates of personality disorder between 13 and 15% (3–5).

Currently, there are no prevalence rates of personality disorder in Jamaica. This series of studies attempts to identify the prevalence of personality disorder in a cohort of psychiatric in-patients (6) and the population prevalence of personality disorder (7). The present study attempts to determine the prevalence rate of personality disorder in an in-patient medical population without a concomitant psychiatric disorder.

SUBJECTS AND METHODS

A total of 100 patients between the ages of 18 and 81 years were recruited from the general medical wards of the University Hospital of the West Indies (UHWI). Patients on the medical ward who had a previous psychiatric diagnosis were excluded from the study. Those patients who could not understand the questions or those who were unable to give an account of their "usual self" were also excluded from the study.

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 approximately 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 (8).

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 (9). The IPDE was validated for use in the Jamaican population in 2004 (10).

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, fourth edition, text revision (DSM IV-TR) criteria for the diagnosis of personality disorder was administered at the end of each interview.

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 (11) guidelines to assess the patient 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.

The prevalence of personality disorder in the entire sample ranged from 21% to 70% depending on the assessment method used (see Table 1). The prevalence rate of

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

Ward (n)	Consultant PD n (%)	IPDE PD n (%)	JPDI PD n (%)
Medical (100)	21 (21)**	70 (70)*	28 (28)**

$p < 0.001^*$, $p > 0.05^{**}$

PD = personality disorder; IPDE = International Personality Disorder Examination Screening Questionnaire; JPDI = Jamaica Personality Disorder Inventory

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. However, the rate identified by the JPDI and the consultant's DSM IV-TR assessment was significantly higher ($p < 0.05$) than those detected internationally in similar populations using traditional assessment tools (Table 2).

Table 2: Local and international personality disorder prevalence rates

Study	Country	Population	Instrument	Prevalence
Weissman, 1993 (3)	USA, Canada, New Zealand	Community and hospital	Community survey	10–13%
Torgenson <i>et al</i> , 2001 (4)	Norway	Community and clinics	Structured interview	10–14%
Grant <i>et al</i> , 2004 (5)	USA (national study)	Population survey	Community survey	15%
Current study	Jamaica	Medical patients	JPDI	28%
	Jamaica	Medical patients	Structured interview	21%
	Jamaica	Medical patients	IPDE-S	70%

JPDI = Jamaica Personality Disorder Inventory; IPDE-S = International Personality Disorder Examination Screening questionnaire

Demographics

These participants were between the ages of 18 and 81 years with a mean age of 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 no significant difference for age in the prevalence of personality disorder by all three tools. The

Table 3: Age distributions

Age range (years)	Medical ward n (%)
18–30	30 (30)
31–40	35 (35)
≥ 41	35 (35)
Total	100 (100)

contingency coefficient of determination for the bivariate test was 0.925 for JPDI and for the consultant's opinion it was 0.946; this was strong by Cohen's scale of strength whereas 0.158 for the IPDE was weak (Table 4).

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

Age (n)	Consultant PD n (%)	IPDE PD n (%)	JPDI PD n (%)
18–30 years (30)	6 (20)	25 (83.3)	9 (30)
31–40 years (35)	8 (22.9)	22 (62.9)	9 (25.7)
≥ 41 years (35)	7 (20.7)	23 (65.7)	10 (28.6)
Total	21 (21)	70 (70)	28 (28)

$p > 0.05^*$

PD = personality disorder; IPDE = International Personality Disorder Examination Screening questionnaire; JPDI = Jamaica Personality Disorder Inventory

The distribution of gender on the medical ward was 61 (61%) males and 39 (39%) females. There was no significant difference for gender in the prevalence of personality disorder by all three tools. However, the contingency coefficient of determination for the bivariate test was weak for all tools; JPDI was 0.073, consultant's opinion was 0.270 and 0.140 for the IPDE (Table 5).

Table 5: Prevalence of personality disorder by gender

Gender (n)	Consultant PD n (%)	IPDE PD n (%)	JPDI PD n (%)
Male (61)	15 (24.6)	46 (75.4)	21 (34.4)
Female (39)	6 (15.4)	24 (61.5)	7 (17.9)
Total	21 (21)	70 (70)	28 (28)
Contingency coefficient	0.270	0.140	0.073

$p > 0.05$

PD = personality disorder; IPDE = International Personality Disorder Examination Screening questionnaire; JPDI = Jamaica Personality Disorder Inventory

The population consisted of 37 (37%) persons employed at various levels namely: five (5%) professionals, three (3%) managers, three (3%) mid-management and 26 (26%) labourers. The vast majority of the population was unemployed, 63 (63%). 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 strong for JPDI, 0.868 and for the consultant's opinion, 0.907 but was weak for the IPDE, 0.270 (Table 6).

Table 6: Prevalence of personality disorder by employment status

Employment status (n)	Consultant PD n (%)	IPDE PD n (%)	JPDI PD n (%)
Employed (37)	8 (21.6)	21(56.8)	10 (27)
Unemployed (63)	13 (20.6)	49 (77.8)	18 (28.6)
Total	21 (21)	70 (70)	28 (28)
Contingency coefficient	0.907	0.270	0.868

$p > 0.05$

PD = personality disorder; IPDE = International Personality Disorder Examination Screening questionnaire; JPDI = Jamaica Personality Disorder Inventory

Of the entire sample, 34 (34%) patients were in relationships *versus* 66 (66%) of the patients who were not in stable long-term relationships. 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 0.283 for JPDI, which was weak; for the consultant's opinion it was 0.712 and 0.851 for the IPDE which was strong (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 (34)	8 (23.5)	24 (70.6)	12 (35.3)
Not in relationship (66)	13 (20.3)	44 (68.8)	16 (25)
Total	21 (21)	68 (78)	28 (28.6)
Contingency coefficient	0.712	0.851	0.283

PD = personality disorder; IPDE = International Personality Disorder Examination Screening questionnaire; JPDI = Jamaica Personality Disorder Inventory

DISCUSSION

The current study found a rate of 21% to 70% of personality disorder in the patients of the general medical wards 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 (70%) and lowest by the consultant's DSM IV-TR assessment (21%). The prevalence rate generated by the IPDE-S instrument was significantly higher ($p < 0.001$) than those of the consultant's DSM-IV-TR opinion and the JPDI. There was no significant difference between the consultant's DSM-IV-TR opinion and the JPDI assessment. The IPDE tool used in the World Mental Health Survey is known to yield conservative estimates and a high rate of false positives, and is limited in its cross-cultural application and reflects variability in its consistency with clinical diagnoses, which is regarded as the gold standard of measurement (1).

The fact that patients with a known psychiatric diagnosis were excluded from the medical in-patient sample may have reduced the prevalence rate identified in this study. Patients with a psychiatric diagnosis were excluded in an attempt to reduce the skew that this might have had on the prevalence rate identified. The premise was that excluding the patients with a psychiatric diagnosis would reveal a prevalence rate in an in-patient medical ward population that would approximate to the prevalence rate in the population.

The relatively high prevalence of personality disorder identified in the Jamaican clinical population highlights the importance of screening patients for the disorder. The similarity between the JPDI and the consultant's assessment of personality disorder emphasizes the need to re-evaluate the current traditional conceptualization and classification of personality disorder using other international screening tools such as the IPDE-S.

Limitations

(i) The small sample size might have lowered the statistical power of within-group analyses; (ii) the consultants were at different stages of qualification and therefore were not all at the same level of experience, thus the level of gold standard was not homogeneous; (iii) a comparison population should ideally have been drawn from a general population sample.

ACKNOWLEDGEMENTS

The authors wish to thank Mr Marvin Gayle for assistance in the statistical analysis. This research was funded by a grant from the Jamaica Culture, Health, Arts, Sports and Education (CHASE) Fund, www.chase.org.jm

REFERENCES

1. Huang Y, Kotov R, De Girolamo G, Preti A, Angermeyer M, Benjet C et al. DSM IV personality disorders in the WHO world mental health surveys. *Br J Psychiatry* 2009; **195**: 46–53.
2. Thylstrup B, Hesse M. Substance abusers personality disorder and staff emotional reactions. *BMC Psychiatry* 2008; **8**: 21.
3. Weissman MM. The epidemiology of personality disorders: a 1990 update. *J Pers Disord* 1993; **7 (Suppl 1)**: 44–62.
4. Torgersen S, Kringlen E, Cramer V. The prevalence of personality disorders in a community sample. *Arch Gen Psychiatry* 2001; **58**: 590–6.
5. Grant BF, Hasin DS, Stinson FS, Dawson DA, Chou SP, Ruan WJ et al. Prevalence, correlates and disability of personality disorders in the United States: results from the national epidemiological survey on alcohol and related conditions. *J Clin Psychiatry* 2004; **65**: 948–58.
6. Walcott G, Martin J, Hickling FW. The prevalence of personality disorder in a psychiatric and substance abuse population in Jamaica. *West Indian Med J* 2013; **62**: 458–62.
7. Hickling FW, Walcott G. Prevalence and correlates of personality disorder in the Jamaican population. *West Indian Med J* 2013; **62**: 443–7.
8. Hickling FW, Martin J, Walcott G, Paisley V, Hutchinson N, Clarke TR et al. The creation and validation of the Jamaica Personality Disorder Inventory. *West Indian Med J* 2013; **62**: 389–96.
9. Loranger AW, Sartorius N, Andreoli A, Berger P, Buchiem P, Channabasavanna SM et al. The International Personality Disorder Examination. The World Health Organization/Alcohol, Drug Abuse and Mental Health Administration International Pilot Study of Personality Disorders. *Arch Gen Psychiatry* 1994; **51**: 215–24.
10. Harrisingh A. Validation of the International Personality Disorder Examination (IPDE) in the Jamaican population [Thesis]. Kingston, Jamaica: The University of the West Indies; 2004.
11. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 4th ed. Washington, DC: American Psychiatric Association; 2000.