

# Prevalence and Correlates of Personality Disorder in the Jamaican Population

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## ABSTRACT

**Objective:** To identify the prevalence and correlates of personality disorder in a representative sample of the Jamaican population using the Jamaica Personality Disorder Inventory (JPDI).

**Method:** A four-stage stratified random sampling method was used to obtain a representative population sample consisting of 1506 Jamaicans, M:F = 727 (48.3%):779 (51.7%), ages 18–64 years. A demographic questionnaire and the JPDI were administered to all participants.

**Results:** Two-fifths of the population (41.4%) scored above the scale's cut-point indicating a diagnosis of personality disorder with the level of severity ranging from mild to severe. Persons with personality disorder were significantly more likely to be single (63%), male (60%), between the ages 18 and 44 years (77%) and of a lower socio-economic status (65%) ( $p < 0.50$  to  $p < 0.001$ ).

**Conclusion:** This is the only population study of personality disorder recorded in the English-speaking Caribbean. This suggests a high risk of behavioural dysfunction in the Jamaican population, having significant implications in light of the country's high rate of crime and violence. The findings highlight the need to develop effective and targeted prevention and intervention measures.

**Keywords:** Jamaica, personality disorder, population

# Prevalencia y Correlatos de los Trastornos de Personalidad en la Población Jamaicana

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## RESUMEN

**Objetivo:** Identificar la prevalencia y los correlatos del trastorno de la personalidad en una muestra representativa de la población Jamaica, usando el Inventario de los Trastornos de la Personalidad en Jamaica (JPDI).

**Método:** Se usó un método de muestreo aleatorio estratificado en cuatro etapas, con el propósito de obtener una muestra poblacional representativa, formada por 1506 Jamaicanos, V:H = 727 (48.3%):779 (51.7%), edades 18–64 años. Se aplicó un cuestionario demográfico y el inventario JPDI a todos los participantes.

**Resultados:** Dos quintas partes de la población (41.4%) alcanzaron puntuaciones por encima del valor límite de la escala, lo cual indica un diagnóstico de trastorno de la personalidad con un nivel de severidad que varía de leve a grave. Las personas con trastorno de personalidad presentaron una probabilidad significativamente más alta de ser solteros (63%), hombres (60%), tener edades entre los 18 y 44 años (77%), y ser de una condición socio-económica más baja (65%) ( $p < 0,50$  hasta  $p < 0.001$ ).

**Conclusión:** Este es el único estudio poblacional de trastornos de personalidad registrado en el Caribe anglófono. Esto sugiere un alto riesgo de disfunción conductual en la población jamaicana, lo cual tiene importantes implicaciones a la luz de la alta tasa de crimen y violencia en el país. Los hallazgos destacan la necesidad de desarrollar medidas de prevención e intervención y encaminada a objetos específicos.

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**Palabras claves:** Jamaica, trastorno de personalidad, población

West Indian Med J 2013; 62 (5): 444

## INTRODUCTION

There have been worldwide difficulties in conceptualization and measurement of personality disorder, particularly in culturally diverse populations (1). Studies in Jamaica to re-define and examine the concept of personality disorder within the Jamaican context have indicated a phenomenological 'clinical triad' of abnormal thoughts, feelings, and actions manifested as: power management and authority problems, dependency (psychological and physiological) problems, and psychosexual problems (2, 3). This 'clinical triad' has been used as the conceptual foundation for the creation of an instrument to measure personality disorder in Jamaica – the Jamaica Personality Disorder Inventory (JPDI). The results of the validation process of this instrument indicate the JPDI to be a reliable and valid screening tool for the identification of personality disorder in Jamaica (4).

Personality disorder population studies conducted across the globe commonly utilize a multi-stage, stratified random sampling method to garner nationally representative household populations, ages 18 years and older (5–7). The present study follows a similar format with the aim of identifying the prevalence of personality disorder in Jamaica using the JPDI as the diagnostic screening instrument to identify the demographic subgroups in which the disorder was particularly elevated and the association between demographic characteristics and personality disorder.

## SUBJECTS AND METHODS

A total of 2150 households were contacted for participation, from which a total of 1506 respondents agreed, indicating a response rate of 70.05%. The final sample consisted of 727 (48.3%) male and 779 (51.7%) female Jamaicans between the ages of 18 and 64 years, who were recruited from all the parishes of Jamaica.

### Sampling

The survey was conducted by Market Research Services Limited (8), a Jamaican market research firm with almost 30 years of experience in conducting market research programmes in Jamaica and across the Caribbean. A four-stage stratified random sampling method was used to identify the target population. In the first stage, the island was split into strata reflecting the thirteen parishes (Kingston and St Andrew included as one parish), with the size of each stratum being relative to its numeric importance within the overall population. In the second stage, the sample in each respective parish was further stratified according to socio-economic make-up of the national adult population (upper, middle, and lower classes) based on the Statistical Institute of Jamaica social class according to education, occupation, and income. Thirdly, each parish was subdivided into urban and rural

enumeration districts that were logically clustered to establish a list of urban and rural sample areas. This clustering was used to ensure, as much as possible, uniformity in the sample areas in terms of population size and demographic make-up. A random selection of sample areas in each parish was done, with selection in accordance to the respective sample size in each parish. At the fourth and final stage, a random selection of households from each selected sample area was done by way of a skip interval procedure, which was driven by the number of dwellings within the respective sample area. Interviewers were given a random start address and a skip interval to follow from that start address.

### Data collection

All field interviewers were trained in the administration of the JPDI and the demographic questionnaire prior to the start of the study. The field team comprised four interviewers and one field supervisor. The interviewers were responsible for selecting the households and respondents (using the previously outlined procedures), as well as administering the demographic questionnaire and the JPDI to all identified respondents. Immediately following each interview, the interviewers were required to check that the questionnaires were completed correctly and legibly prior to submitting them to the field supervisor. For quality assurance and standardization, the field supervisors oversaw some interviews to evaluate accuracy, collected and checked the interviewers' questionnaires, and made visits to some previously interviewed households to re-ask questions for verification purposes. This was followed by another level of validation, which involved call-backs or revisits to 46% of respondents to ensure that the questionnaires and procedures were completed accurately.

### Measures

*Jamaica Personality Disorder Inventory (JPDI)*: this is a 38-item yes or no, interviewer-administered questionnaire for the diagnosis of personality disorder, with scores above the scale cut point ( $\geq 10$ ) being indicative of the presence of personality disorder (4). The reliability of the JPDI was measured previously in the Jamaican population which indicated an internal consistency of  $\alpha = 0.79$  (5). Within the current study population, an internal consistency of  $\alpha = 0.73$  was found.

*Demographic questionnaire*: a standard demographic questionnaire was used to garner background information about the participants including: date of birth, education and work history, income level, marital history, area of residence and parish of residence, and socio-economic class.

**Statistical analysis**

The database of responses to the demographic and JPDI questionnaires was created and analysed using the Statistical Package for the Social Sciences (SPSS) – version 17. Chi-squared analysis was used to assess the differences in the prevalence rates across the demographic variables and multiple linear regression analysis was used to identify demographic factors that best account for personality disorder within this sample population.

**RESULTS**

An assessment of the sampling procedure indicated that there were minimal differences between the demographic make-up of the sample population and the general Jamaican population (Table 1).

Table 1: Average (%) demographic composition of Jamaican population and the study sample

Demographic characteristic	Jamaican population (%)	Sample achieved (%)
Gender		
Male	49	48
Female	51	52
Age (years)		
18–24	17	19
25–34	25	27
35–44	23	26
45–54	14	18
55–64	21	12
Socio-economic status		
Upper	14	10
Middle	28	26
Lower	58	64

Demographic statistics provided by the Statistical Institute of Jamaica (27)

As shown in Table 2, approximately half (51.7%) of the study participants was female, just over half (57.4%) was currently single, most were under the age of 45 years (71%) and had completed up to secondary level schooling (68.9%). More participants in the sample were earning under \$JA 50 000.00 (USD\$580.00) per month (63.6%) and correspondingly more participants were within the lower socio-economic class (64.0%).

**Prevalence of personality disorder**

The prevalence of personality disorder in the entire sample population was 41.4% (95% CI 35.2, 48.8), that is, 624 participants scored above the cut point on the JPDI. The prevalence rate reflects individuals functioning on a spectrum from mild to severe. Table 3 shows that personality disorder was highest amongst men, respondents within the 18–44-year old age group, those who were not in a stable marital relationship and those of the middle and lower socio-economic status.

Table 2: Sociodemographic characteristics of the Jamaican sample (n = 1506)

	n	%
Age (years)		
18–24	281	18.7
25–34	399	26.5
35–44	388	25.8
45–54	263	17.5
55–64	175	11.6
Gender		
Male	727	48.3
Female	779	51.7
Education <sup>1</sup>		
Primary/preparatory	207	13.8
Secondary	829	55.1
Vocational/technical	120	8.0
College/university	299	19.9
Marital Status		
Single	864	57.4
Married/cohabiting	574	38.1
Separated/divorced	44	2.9
Widowed	24	1.6
Area of Residence		
Urban	694	46.1
Rural	812	53.9
Household monthly income <sup>2</sup>		
< \$20 000.00	418	33.4
\$20 000.00–50 000.00	378	30.2
\$50 000.01–150 000.00	332	26.5
> \$150 000.00	123	9.8
Social Class		
I	155	10.3
II	387	25.7
III	964	64.0

<sup>1</sup>Missing data: n = 48; <sup>2</sup>missing data: n = 255

Table 3: Prevalence of personality disorder in the Jamaican population by demographic characteristics

Demographic characteristic	(UW) Prevalence			
	n (%)	$\chi^2$	df	p
Age (years)		21.480	4	0.000
18–24	130 (46.3)			
25–34	180 (45.1)			
35–44	172 (44.3)			
45–54	89 (33.8)			
55–64	53 (30.3)			
Gender		61.269	1	0.000
Male	376 (51.7)			
Female	248 (31.8)			
Marital status		18.524	3	0.000
Single	395 (45.7)			
Married/common-Law	205 (35.7)			
Separated/divorced	19 (43.2)			
Widowed	5 (20.8)			
Household monthly income		8.688	3	0.034
< \$20 000 (< US\$230)	156 (37.3)			
\$20 000–\$50 000 (US\$230–580)	177 (46.8)			
\$51 000–\$150 000 (US\$581–1740)	134 (40.4)			
> \$150 000	57 (46.3)			
Social class		8.045	2	0.018
I	50 (32.3)			
II	166 (42.9)			
III	408 (42.3)			

UW = Unweighted

### Association with demographic characteristics

Chi-squared analysis did not reveal significant differences between persons with personality disorder and those who did not have this diagnosis based on their level of educational attainment and area of residence (urban vs rural) [ $p > 0.05$ ]. Significant differences were, however, identified for gender, age, marital status and socio-economic class: of the people diagnosed with personality disorder (624), more were likely to be male (60.3%), single (63.3%), between the ages of 18 and 44 years (77.2%), earning a household income of less than JA \$150 000.00/US\$1740.00 per month (89.2%), and within the lower socio-economic class (65.4%).

A step-wise multiple regression equation was done to assess the predictive factors associated with personality disorder for which the analysis revealed a statistically significant regression model,  $F(6,1457) = 16.059, p < 0.001$ . Gender, age, socio-economic class, education attained, household monthly income, and area of residence together explained only 5.8% of the variance in JPDI scores. Analysis of the  $\beta$  coefficients of the significant regression functions showed that gender was the best predictor of the personality disorder  $\beta = -0.155, t(1,1457) = -6.079, p < 0.001$ , followed by age  $\beta = -0.105, t(1,1457) = -4.086, p < 0.001$ , household monthly income  $\beta = 0.085, t(1,1457) = 3.313, p < 0.01$ , socio-economic class  $\beta = -0.083, t(1,1457) = -2.359, p < 0.05$ , education  $\beta = -0.079, t(1,1457) = -2.216, p < 0.05$ , and area of residence  $\beta = -0.069, t(1,1457) = -2.678, p < 0.01$  (Table 4).

Table 4: Demographic and social predictors of personality disorder

Predictors	$\beta$ coefficient	t (1,1457)	p <	Significance
Gender	-0.155	-6.097	0.001	v sig
Age	-0.105	-4.086	0.001	v sig
Household monthly income	0.085	3.313	0.01	sig
Area of residence	-0.069	-2.678	0.01	sig
Socio-economic class	-0.083	-2.359	0.05	sig
Education	-0.079	-2.216	0.05	sig

### DISCUSSION

This survey is the first to report on the prevalence and correlates of personality disorder in a national sample of the Jamaican population. The prevalence of personality disorder identified (41.4%) indicates that a substantial number of persons within the Jamaican household population have a personality disorder; the severity of which exists on a continuum from mild to severe. This finding establishes the prevalence rates in the Jamaican population, which exceed rates found internationally (5–7). Differences between prevalence rates in this and other studies may be the result of differences in the conceptualization of personality disorder and the diagnostic instruments used: international prevalence studies are done mainly in westernized cultures using tools created from Western conceptualizations of personality and personality disorder. Westernized assessment tools, such as the Inter-

national Personality Disorder Examination (IPDE) screening questionnaire, have been questioned for their validity across countries (6).

The Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> edition, text revision (DSM-IV-TR) requires two of four characteristics (cognition, affectivity, interpersonal functioning and impulse control) for diagnostic categorization of personality disorder. The JPDI questions capture these four DSM diagnostic areas (4). Also, most of the demographic characteristics of Jamaicans diagnosed with personality disorder in this study are similar to those identified in other international studies (9): Jamaicans diagnosed with the disorder were more likely to be male, young adults (below age 45 years), not in a stable relationship (single/divorced/separated), and within the middle to lower socio-economic class. An important finding in the current study was that the prevalence of personality disorder was between 37.3 and 46.8% at every level of household monthly income but is more prevalent within the middle and lower socio-economic classes.

Early anthropological and socio-political studies of Jamaica have focussed on the problem of personality development in Jamaica. Madeline Kerr examined the development of personality in the Jamaican society (1947–1949), and suggested that there are five social situations that have given rise to the tensions that reflect on personality development in Jamaica. These include: a split in constructions of parental roles, lack of patterned and culturally relevant learning in childhood, difficulties regarding skin colour, dichotomy in religious *versus* magical beliefs, and the pervasive and persisting impact of the slavery tradition (10). Jamaican Political Sociologist, Carl Stone has asserted that British colonization and the plantation economy created a warped authority system that engendered personality disorder seen in present day Jamaica (11). He suggested that the tensions experienced by the Jamaican people in dealing with issues of authority and power have been jumbled since the era of colonial British colonization and these tensions are compounded by ongoing political struggles in which power struggles of competing ideologies, values and norms have resulted in a disequilibrium of power that has weakened authority in all domains of social space. He concludes that this long-standing struggle for power and authority within the Jamaican culture, combined with high levels of verbal and physical aggression has been associated with “serious personality disorders in our culture” (12).

The Jamaican heritage has contributed to the evolution of the adaptive personality that has transcended cultural contradictions, and the maladaptive personality that has been the victim of these contradictions. The disordered personality traits arise from a combination of pervasive high levels of stress and coping difficulties, and these maladaptive personality traits are handed down across the generations, with such traits becoming foundations of contemporary Jamaican personality disorders (2). This elevated prevalence rate of

personality disorder is highlighted by current pervasive problems of crime and violence and the unremitting reports of such acts in the Jamaica print, radio and television media. The current homicide rate of 53/100 000 is the third highest in the world after El Salvador and Iraq (13). Our findings indicate that despite high levels of personality disorder, the adaptive 'normal' personality still remains dominant within the Jamaican adult population (58.6%). Intervention strategies should therefore be geared at uncovering the characteristics that promote resilience, create policies to bolster such characteristics and promote change in maladaptive functioning.

## CONCLUSIONS

These reported elevated levels of personality disorder in Jamaica have far reaching implications for this country and the Caribbean, and should not be ignored or rejected but instead critically evaluated and monitored for the identification and development of appropriate treatment interventions.

## Limitations

This study included only members of the general household population in Jamaica and did not include those persons who were incarcerated or in treatment facilities, in which the rates of personality disorders are known to be higher. Also, the single source of assessment was self-report using the Jamaica Personality Disorder Inventory (JPDI) and this may in some cases have resulted in biased responses. The validity of reports would have been increased by the corroboration from a second informant. An internationally standardized assessment tool such as the IPDE was not administered for comparative purposes. As the research did not include a general psychiatric screener, the researchers were unable to identify co-morbid disorders as well as the possible influence of other disorders on the diagnosis of personality disorder in this study population. The difficulty to adequately diagnose a personality disorder in a single interview is another major limitation.

## ACKNOWLEDGEMENTS

The authors wish to thank Market Research Services Ltd for the completion of this population survey, and 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](http://www.chase.org.jm)).

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