

Substance Abuse and Its Relationship with Household Dysfunction and Psychological Distress among University Students

S Longman-Mills, P Whitehorne-Smith, W De La Haye

ABSTRACT

Objective: The aim of this study was to investigate the relationship between experiencing household dysfunction and substance abuse in adulthood among Jamaican university students.

Methods: This was a cross-sectional study which consisted of university students who were 18 years or older. Systematic sampling techniques were utilized to identify participants spanning across all faculties of a single university. The questionnaire utilized for this study included questions from several standardized scales: Kessler Psychological Distress Scale (K10), the Inter-American Drug Abuse Control Commission/Organization of American States (CICAD/OAS) drug use questionnaire and the household dysfunction scale from the Adverse Childhood Experiences (ACE) questionnaire.

Results: A total of 382 students participated in the study (279 females and 103 males). More than a third of the students (38.9%) reported substance use, with 13.6% being substance abusers. Seven of every ten respondents were raised in a dysfunctional household. A significant positive relationship was observed between household dysfunction and substance abuse, where higher levels of household dysfunction were found to be associated with substance abuse: $\chi^2(2, n = 382) = 7.685, p < 0.05$. Additionally, witnessing a mother or caregiver being violently treated, living with an alcoholic family member or a household member who attempted suicide was found to be associated with substance abuse during adulthood.

Conclusion: These findings highlight the role of household dysfunction as a serious risk factor for adult drug abuse and can be used to help guide and inform drug prevention and intervention strategies.

Keywords: Adverse childhood experiences, household dysfunction, substance abuse

WIMJ Open 2015; 2 (1): 3

INTRODUCTION

Research, in developed nations, has suggested that being raised in a dysfunctional family may be a risk factor for substance abuse (1). An investigation into this under-researched area is crucial, as according to the standards of western developed nations, the typical Jamaican household or family may be described as dysfunctional (2).

The typical Jamaican family tends to be an extended matrifocal family, particularly among the lower classes, with mothers being the main financial provider for the family (2). Parental monitoring of children is often haphazard as it is constrained by the mother's need to pursue employment; therefore, the support of the extended family and neighbours

may be heavily relied on. The father's influence in such households is usually emotionally and financially erratic, as fathers often have a visiting relationship with the family (2). However, despite their inconsistent presence, fathers may perpetrate intimate partner violence, as a 2008 national survey reported that 18% of women and 14% of men had witnessed parental violence when they were less than 15 years old; while one in every three women (35%) reported that they had been the victim of intimate partner violence (3).

Household or family dysfunction can be defined as living in a home environment where there are chronic conditions that may interfere with the psychological functioning of the members of the family. Severe dysfunctional factors such as the physical, sexual and verbal abuse of a child have been excluded from this study, as child abuse is already widely accepted as being predictive of substance abuse (4). In this study, the adverse conditions of interest are observing the repeated physical abuse of a caregiver, having parents who were separated or divorced, living with a substance

From: Department of Community Health and Psychiatry, The University of the West Indies, Kingston 7, Jamaica.

Correspondence: Dr S Longman-Mills, Department of Community Health and Psychiatry, The University of the West Indies, Kingston 7, Jamaica.
E-mail: samanthalongman@gmail.com

abusing family member and living with a mentally ill family member (5). The aim of this study was to investigate if there is a relationship between experiencing household dysfunction and substance abuse in adulthood among Jamaican university students.

SUBJECTS AND METHODS

This study represents a segment of a larger multi-country study (4, 6) that examined the influence of adverse childhood experiences on adult drug use. The inclusion criteria for this study were being at least 18 years old as well as current enrolment within the selected university. Systematic sampling techniques were used to collect data from 279 female and 103 male university students.

The ethics committee of the selected university gave written approval for this study. Additionally, each student signed an informed consent prior to completing the questionnaire. Some items on the research questionnaire were deemed to have been sensitive in nature, for example, asking if the students' had a family member who had attempted suicide; therefore, all participating students were offered counselling services.

The research questionnaire used in this study consisted of questions from the Kessler Psychological Distress Scale [K10] (7), the Inter-American Drug Abuse Control Commission/Organization of American States (CICAD/OAS) drug use questionnaire and the household dysfunction scale from the Adverse Childhood Experiences (ACE) questionnaire (5).

Kessler Psychological Distress Scale: The K10 is a 10-item measure of psychological distress. This scale has five potential response choices, with each choice being associated with a score between one and five. This scale consists of items measuring depression, anxiety, hopelessness, restlessness, fatigue and worthlessness. This measure is known to demonstrate a strong relationship with mental illnesses in general, and specifically, mood as well as anxiety disorders (8). Higher scores on this scale are associated with an increased likelihood of being diagnosed with a mental disorder (7–9).

Household dysfunction scale: Household dysfunction was measured using the ACE household dysfunction scale, which measures family dysfunction as per the criteria of western developed nations. This scale consists of ten items that assesses whether the participant lived with a mother who was violently treated, a substance abuser, a mentally ill family member, an incarcerated family member, as well as whether there was parental separation, divorce or a family member who attempted suicide. This scale has been used globally in a variety of cultures, as it has been incorporated into the World Health Organization surveys and is also widely used by the Centers for Disease Control and Prevention (5).

CICAD/OAS drug use questionnaire: The substance use and abuse behaviours of the students were assessed using questions from the CICAD/OAS drug use questionnaire (10).

The selected items facilitated the identification of substance use within the past month as well as year and also the diagnosis of substance abuse as per the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV) criteria (11). The selected questions have been previously used within the Caribbean context and were found to be easily understood by the participants.

Procedure

The questionnaire was pretested using think-aloud interviews, to ensure that the meaning of each question was being conveyed as intended. Participating university faculties were then randomly selected and every third student observed within the proximity of the selected faculty office was invited to participate. Students were required to read and sign an informed consent form prior to completing the questionnaire. Each student received a phone card of minimal value for their participation in this research. Data analysis was conducted using the SPSS software version 19.

RESULTS

The sample consisted of 382 students: 103 males and 279 females between the ages of 18 and 48 years. The mean age for the respondents was 21.27 (\pm 4.39) years, with a mode of 19 years. Substance use was reported by 38.9% of the students, with the most frequently used substances within the past year being alcohol (37.4%), cannabis (10.3%), tobacco (8.9%) and unprescribed use of prescription drugs (3.4%). The adverse outcomes experienced by the students as a result of their substance use can be seen in Table 1. The most frequently reported adverse outcomes were having unintended sexual relations (12.2%), having conflict with a partner (12.2%) and experiencing financial difficulty (10.8%). These outcomes were evaluated based on the DSM-IV diagnostic criteria for substance abuse and 33.8% of all substance users were also substance abusers, with 13.6% of all the students reporting that they abused a substance.

Table 1: Frequency of adverse outcomes due to substance use

Adverse outcomes	<i>f</i>	%
Conflict with partner	18	12.2
Family conflict	7	4.7
Unintended sexual relations	18	12.2
Financial difficulty	16	10.8
Health related problems	4	2.7
Fines for driving under the influence	2	1.4
Fighting resulting in arrest	2	1.4
Motor vehicle accidents	3	2.0
Incarceration	2	1.4
Other problems with the law	5	3.4
Academic problems	12	8.1
Suspension from university	3	2.0
Repeatedly absent from classes	6	4.1
Other problems with university administration	1	0.7

Almost three-quarters of the students, 72.3%, reported that they were raised in a dysfunctional household. The types of household dysfunctions that were reported can be seen in Table 2. The most frequently reported forms of dysfunctions were having parents who were separated or divorced (48%), witnessing caregiver being treated violently (30.9%) and living with a mentally ill family member (22%).

Table 2: Reported experiences of household dysfunction

Types of household dysfunction	<i>f</i>	%
Mother/caregiver violently treated	118	30.9
Parents separated or divorced	181	48
Lived with mentally ill family member	83	22
Lived with an alcoholic	55	14.5
Lived with substance using family member	47	12.4
Lived with incarcerated family member	40	10.6
Household member attempted suicide	26	6.9

Minimal to mild levels of psychological distress were reported by 66.8%, moderate levels of psychological distress were reported by 14.9%, while severe levels were reported by 18.2%. The relationship between household dysfunction and psychological distress was investigated using the Spearman's rho statistic and a significant positive correlation was observed ($r_s = 0.210, p < 0.001$).

The relationship between psychological distress and substance use was investigated using the Chi-squared statistic. A non-significant relationship was observed: $\chi^2 (3, n = 366) = 3.746, p = 0.290$. However, an exploration of the relationship between experiencing psychological distress and abusing a substance identified a significant relationship: $\chi^2 (3, n = 368) = 29.376, p < 0.001$.

The research hypothesis that household dysfunction would demonstrate a significant relationship with substance abuse was examined using the Chi-squared statistic. A significant positive relationship was observed between household dysfunction and substance abuse. Higher levels of household dysfunction were found to be associated with substance abuse: $\chi^2 (2, n = 382) = 7.685, p < 0.05$. Table 3 presents a detailed examination of the relationship between each type of household dysfunction and substance abuse. Witnessing a mother or caregiver violently treated, living with an alcoholic family member or a household member who attempted suicide was found to be associated with substance abuse during adulthood.

Table 3: Pearson Chi-squared test of the relationship between each type of household dysfunction and substance abuse

Type of household dysfunction	<i>p</i> -value
Mother/caregiver violently treated	0.025
Parents separated or divorced	0.228
Lived with mentally ill family member	0.779
Lived with an alcoholic	0.002
Lived with substance using family member	0.225
Lived with incarcerated family member	0.088
Household member attempted suicide	0.001

DISCUSSION

More than a third of the students (38.9%) reported substance use, with 13.6% being substance abusers. As anticipated, due to their easy availability and low cost, alcohol and cannabis were the most frequently consumed substances. The adverse effects of substance use were also apparent in this population. Students reported interpersonal conflicts, unintended sexual relations, financial difficulty and academic problems as a result of substance use, thereby underscoring the need to understand the drivers of substance abuse in Jamaica.

This study has found that seven of every ten respondents were raised in a dysfunctional household. Furthermore, a significant relationship was identified between being raised in a dysfunctional household and developing psychological distress. These findings suggest that a large percentage of Jamaicans may be vulnerable to psychological distress because of their family experiences. In this study, a third of the students had increased levels of psychological distress, indicating an increased likelihood of being diagnosed with a psychological disorder. Therefore, the typical Jamaican family may not be sufficiently protective, but rather may be the source of distress.

Experiencing household dysfunction was found to exhibit a significant relationship with substance abuse. This finding supports the premise that being raised in a dysfunctional family makes one more likely to become a substance abuser in adulthood (1, 12, 13). The presence of chronic family stressors may result in the ineffective resolution of a child's developmental crises, and the child may exhibit psychological distress and ineffective coping strategies. Due to ineffective coping strategies, the child member may self-medicate with a substance, in adulthood, to alleviate psychological distress, and that may lead to substance abuse.

Not all forms of household dysfunction were found to have a significant debilitating effect, as parental separation was not found to demonstrate a significant relationship with substance abuse. Being raised in a home where parents are separated or divorced is a common occurrence in Jamaica and the cultural norm of parental separation might have mitigated the potential adverse effect. Therefore, having parents who are separated may not indicate household dysfunction within a Jamaican cultural context. However, living with a household member who attempted suicide, living with an alcoholic family member or witnessing a caregiver being treated violently characterize dysfunction and were risk factors for substance abuse during adulthood.

The rate of substance abuse identified in this sample was found to be one in every seven respondents. This rate is not dissimilar to the one in eight respondents as substance abusers identified in the national sample over 12 years ago (14). This suggests that despite the anti-drug strategies that have been implemented over the past decade, there has not been a marked decline in substance abuse. Therefore, it may be beneficial to implement strategies targeting all potential

risk factors for substance abuse, including being raised in a dysfunctional household.

REFERENCES

1. Anda RF, Croft JB, Felitti VJ, Nordenberg D, Giles WH, Williamson DF et al. Adverse childhood experiences and smoking during adolescence and adulthood. *JAMA* 1999; **282**: 1652–8.
2. Leo-Rhynie EA. The Jamaican family: continuity and change. Kingston: Grace, Kennedy Foundation; 1993.
3. National Family Planning Board. Reproductive Health Survey Jamaica 2008. Young adults report. Kingston, Jamaica: NFP Board; 2010.
4. Longman-Mills S, González WY, Meléndez MO, García MR, Gómez JD, Juárez CG et al. Exploring child maltreatment and its relationship to alcohol and cannabis use in selected Latin American and Caribbean countries. *Child Abuse Neglect* 2013; **37**: 77–85.
5. Centers for Disease Control and Prevention. Adverse Childhood Experiences (ACE) Study. Atlanta, GA: Centers for Disease Control and Prevention; 2012 [updated 2011 Jun 1; cited 2012 Aug 22]; Available from: www.cdc.gov/ace/questionnaires.htm
6. Longman-Mills S, González Y, Meléndez M, García M, Gómez J, Juárez C et al. Child maltreatment and its relationship to drug use in Latin America and the Caribbean: an overview and multinational research partnership. *Int J Ment Health Addict* 2011; **9**: 347–64. DOI 10.1007/s11469-011-9347-0.
7. Kessler R, Barker P, Colpe L, Epstein J, Gfroerer J, Hiripi E et al. Screening for serious mental illness in the general population. *Arch Gen Psychiatry* 2003; **60**: 184–9.
8. Andrews G, Slade T. Interpreting scores on the Kessler Psychological Distress Scale (K10). *Aust N Z J Public Health* 2001; **25**: 494–7.
9. Pratt LA, Dey AN, Cohen AJ. Characteristics of adults with serious psychological distress as measured by the K6 scale: United States 2001–2004. *Adv Data* 2007; (382): 1–18.
10. Organisation of American States/Inter-American Drug Abuse Control Commission. Comparative analysis of student drug use in Caribbean countries. Washington, DC: Organisation of American States; 2010.
11. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4th ed, text revision. Washington, DC: American Psychiatric Association; 2000.
12. Dube SR, Felitti VJ, Dong M, Chapman DP, Giles WH, Anda RF. Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the Adverse Childhood Experiences Study. *Pediatrics* 2003; **111**: 564–72.
13. McKay JR, Murphy RT, Rivinus TR, Maisto SA. Family dysfunction and alcohol and drug use in adolescent psychiatric inpatients. *J Am Acad Child Adolesc Psychiatry* 1991; **30**: 967–72.
14. The National Council on Drug Abuse. National household survey of drug use and abuse in Jamaica, 2001. Kingston: National Council on Drug Abuse; 2002.

Submitted 13 Oct 2014

Accepted 27 Oct 2014

Published 16 Mar 2015

Online: <http://www.mona.uwi.edu/wimjopen/article/1623>

© Longman-Mills et al 2015

This is an open access article made freely available under Creative Commons Attribution 4.0 International (CC BY 4.0). Users are free to share, copy and adapt this work as long as the copyright holder (author) is appropriately and correctly credited. See http://creativecommons.org/licenses/by/4.0/deed.en_us for more information.