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## GENDER DIFFERENCES FOR PEER INFLUENCE ON DRUG USE AMONG STUDENTS FROM ONE UNIVERSITY IN GUYANA: CURRICULUM IMPLICATIONS

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**ABSTRACT:** Drug use in our society seems to be a growing concern. Hence the concern of the ES/CICAD and CAMH to sponsor Multicentric Research projects for which this is one. This study therefore sought to determine gender differences for peer influence on drug use among students from one university in Guyana. A survey was applied to 263 university students selected by a purposive sampling. Mean, percentage, cross-tab, t- test and Spearman correlation were used for data analysis. Drug use by male and female participants was minimal. Gender was not significantly different in the level of peer influence. But it was significantly different in the use of illicit drug and in its association with the relationship between peer influence and drug use. The result of this study had curriculum implications. Based on the sampling technique, it was recommended that a similar study be carried out in a wider community outside of the university.

**DESCRIPTORS:** Gender. Narcotics. Students. Curriculum.

## DIFERENÇAS DE GÊNERO E INFLUÊNCIA NO USO DE DROGAS EM ESTUDANTES UNIVERSITARIOS NA GUYANA: IMPLICAÇÕES CURRICULARES

**RESUMO:** O uso de drogas em nossa sociedade parece ser uma preocupação crescente. Daí a preocupação da SE/CICAD e do CAMH para patrocinar projetos de pesquisa multicêntricos, do qual este projeto faz parte. O uso de drogas é normalmente associado com os grupos de pares e de gênero. Portanto, este estudo teve como objetivo verificar a influência do gênero e a influência dos pares no uso de drogas entre estudantes universitários da Guayana. Um questionário foi aplicado a 263 estudantes universitários selecionados por meio de amostragem intencional. A análise dos dados foi realizada por meio do cálculo da média, das percentagens, da tabulação cruzada, do teste "t" e correlação de Spearman. As diferenças de gênero não foram significativas para o nível de influência do gênero. O uso de drogas ilícitas foi significativo especialmente pela influência dos colegas.

**DESCRIPTORES:** Gênero. Entorpecentes. Estudantes. Currículo.

## LAS DIFERENCIAS DE GÉNERO E INFLUENCIA DE LOS PARES SOBRE EL USO DE DROGAS EN ESTUDIANTES DE UNA UNIVERSIDAD EN GUYANA Y SUS IMPLICACIONES CURRICULARES

**RESUMEN:** El uso de drogas en nuestra sociedad parece ser una preocupación creciente. De ahí la preocupación de la ES/CICAD y CAMH para patrocinar proyectos de investigación multicéntricos, de los cuales este proyecto forma parte. El uso de drogas es normalmente asociado con grupos de pares y género. Por lo tanto este estudio busco determinar las diferencias de género sobre la influencia de pares en el uso de drogas entre estudiantes de una Universidad en Guayana. Un cuestionario fue aplicado a 263 estudiantes universitarios seleccionados mediante un muestreo intencional. El análisis de datos se realizó mediante el cálculo de la media, los porcentajes, la tabulación cruzada, el test "t" y la correlación de Spearman. El uso de drogas en hombres y mujeres fue mínimo. Las diferencias de género no fueron significantes para el nivel de influencia de género. El uso de drogas fue significativo en el uso de drogas ilícitas y su relación con la influencia de pares y el uso de drogas.

**DESCRIPTORES:** Género. Narcóticos. Estudantes. Curriculum

## INTRODUCTION

The growing concern of drug use/drug abuse globally, has led to several research studies. Hence the concern of Inter-American Drug Abuse Control Commission (CICAD) and the Centre for Addiction and Mental Health (CAMH) which has led to provide evidence-based preventive measures by way of sponsoring Drug - Demand Reduction Multicentric Research projects including the present study.

In Guyana the growing concern of drug use/drug abuse has led to the establishment of Drug Demand Reduction Programme as noted by the former Minister of Health.<sup>1</sup> In his address during the first anniversary of the establishment of the Drug Demand Reduction Programme, he reported that the most commonly used drug in Guyana is alcohol and the addiction to crack cocaine and other illicit drugs is becoming a major problem in Guyana. However, the most commonly used drug in Guyana is marijuana, followed by cocaine and that ecstasy is becoming prominent although its use is still low.<sup>2</sup>

It was noted that substance abuse has caused a number of social problems in Guyana.<sup>1</sup> The former Minister attributed the growing domestic violence issue and road accidents to substance abuse. He also linked sexual abuse of women and children to alcoholism. In addition as noted by the former Minister of Health, there are many persons in the prison who are incarcerated for committing violent crimes while under the influence of some substance. The former Minister indicated that in Guyana drug abuse leads to physical and mental suffering resulting in destruction of self-esteem and a loss of ability to reason and function effectively.<sup>3</sup> There are other health problems like cancer, liver disease and dementia that have been linked to drug use such as alcohol.<sup>4</sup>

The former Minister of Health stressed that the Ministry alone cannot fight against the problem of drug abuse. He called on schools among others to assist the Ministry.<sup>1</sup> This study therefore is timely.

A look at the Guyanese society shows the use drugs by different groups of persons. It was noted that youths are highly represented among population groups who use drugs.<sup>2</sup> Studies have provided strong evidence that friends play a central role in individual's initiation, escalation and short term temporal variations in substance use.<sup>5-7</sup> To corroborate this, other researchers have also

noted the findings of several studies which indicated a strong influence of perceived substance use of close friends.<sup>8-9</sup> That associating with substance using peers can lead to both initiating and escalation in tobacco and alcohol use.<sup>7,10</sup>

Numerous theoretical frame works have been used to explain the process by which social relationships affect a person's substance use.<sup>11</sup> Among such is the Primary socialization theory,<sup>12</sup> and the social development model.<sup>13-14</sup> The Primary socialization theory distinguishes between various forms of peer influence, including peers in the general environment, peer life style groups and peer clusters.<sup>11</sup> Peer clusters include best friends, small groups of close friends and couples.<sup>12</sup> as cited by<sup>11</sup> argued that there are strong selection factors in the formation of peer clusters. Such include similarity of attitudes, interests, and abilities. The Social Development model<sup>13-14</sup> is an integrated theory that purports to explain the development of both pro-social and antisocial behaviours over the life course.<sup>11</sup> This model recognizes that individuals learn behaviours through socialization. The social learning process produces positive or problematic behaviours, recognizing that many individuals experience both positive and negative influences. The negative influences include the use of drugs which as earlier noted has been associated with peer influence.

Some authors assert that the university environment seems to promote the strong peer influence on drug use.<sup>11</sup> It has been observed that university students develop new friendship network of adjustment to the university life,<sup>15</sup> indicator that it is a major developmental transition. To have a sense of belonging persons of similar interest and age group form informal groups to form peer clusters that develop social bonds/social relationships. This is common among university students such as those in Guyana.

Apart from peer influence, there are other associated drug factors such as gender among others. In line with this idea was identified gender as a significant predictor of drug use among high school students in Ontario.<sup>16</sup> However noted that the results of UK school surveys over a number of years showed that there was a narrowing of gender gap among students who reported recently being involved in drug use.<sup>17</sup> On the other hand, the most studies have shown that females are more easily directly influenced by their peers as compared with males.<sup>5</sup> They added that substance use is more likely to occur in a peer context among girls

compared with boys. To explain this that girls' self-concept tends to be lower than that of boys.<sup>18</sup> However, the result of a study<sup>19</sup> showed that males might be more reactive than females to social pressures supportive of heavy drinking, asserted that heavy drinking is believed to be an integral part of the male role. This assertion seems to be true when one considers the report given in 2009 by the coordinator of the Drug Demand Reduction Programme in Guyana.<sup>1</sup> She indicated that the programme had 91 clients who were between the ages of 18 and 67 years: out of the 91 clients, 8 of them were females.<sup>1</sup>

This study therefore sought to ascertain gender differences for peer influence on drug use among university students in Guyana. And if there is, both male and female students should be exposed to drug education keeping in mind the stereotype belief that heavy drinking is an integral part of the male role. The result of this study drew implication for the introduction of a core curriculum in the university programmes in Guyana.

This study sought to answer three research questions: 1) Is there a significant difference in drug use by male and female university students? 2) Is there gender difference in the level of peer influence among university students? 3) Is there a significant relationship between peer influence and drug use among university students? And 4) Are male university students more likely than females to have a stronger relationship with peer influence?

## METHODOLOGY

This study was part of the Drug Demand Reduction Multicentric Projects which involved five universities from Latin American and three universities from Caribbean countries. The data used in this study were collected from one university in Guyana.

This study was a survey of 263 university students; made up of 76 males and 187 females. Purposive sampling was used to obtain the sample from School of Education and Humanities, faculties of Health Sciences and Social Sciences.

The research instrument was a self-reported questionnaire which consisted of close ended items. The researcher and two lecturers administered copies of the self-reported questionnaire to 274 university students in a class room setting. 100 percent of the questionnaires were completed and returned, but only 263 copies were useable.

Mean, percentage, cross-tabs, t-test Chi square and Spearman correlation were the statistics used to analyze data for the study.

Ethical approval for this study was granted by the Centre for Addiction and Mental Health Ethical Committee in Canada. Permission was given by the administration of the University of Guyana in 2012 and the student union of the university to conduct the study. The students sampled for the study consented to participate in the study.

## Measures

### *Living accommodation*

This was included in the study as a demographic variable since it involved university residence. Some authors<sup>11</sup> claim that the university campus seems to promote the strong peer influence on drug use. This variable was measured by the use of frequency and percentage.

### *Peer influence*

The peer influence scale used in this study was modeled after the scale that was earlier developed by three researchers.<sup>20</sup> The items of a five point scale asked participants to indicate how many of their friends use drugs. The number of friends who use drugs was based on frequency and percentage of responses to five items on the five point scale (None=0; One=1, Few=2, Some=3, and Most=4). The level of Peer Influence was determined by calculating the mean response of the participants. The theoretical mean was 2.5; thus a mean response of 2.5 or more was high level of peer influence, while a mean response below 2.5 was low level of peer influence. The higher the mean of participants who indicated that most of their friends use drugs, the higher the level of peer influence.

Gender differences were identified on the number of friends who use drugs using cross tabulation. T test for independent sample was used to determine if gender was significantly different in drug use. The dependent variable (drug use) instrument was developed by World Health Organization.<sup>21</sup> Only items on tobacco, alcohol, cannabis, cocaine and amphetamines were selected for this study. The variable had two measures: Licit and illicit drug use in the past 12 months. The licit drugs were: tobacco and alcohol; the illicit drugs were: cannabis, cocaine and amphetamine. A five item measure asked participants to indicate their use of the five drugs in the past 12 months. It was



a two point scale (Yes=1; No=0). An overall mean score by gender indicated the level of licit and illicit drug use. A score of 1 indicated drug use while a score of 0 indicated non drug use. Spearman correlation analysis was used to determine the relationship between peer influence and drug use.

## RESULTS

### Characteristics of demographic data on living status by gender

A total of 212 (80.6 %) participants lived at home with family. 23 (19 %) and 61 (57.4 %) of those who lived at home with family were males and females respectively; 2.7% (7) males and 3% (8) females lived off campus alone, 1.5% (4) males and 3.4% (9) females lived with other relatives; 0.8% (2) males; 4.2 % (11) females lived in university residence; 0.8% (2) males and 1.52 % (4) females lived with other relatives and another 1.52 % (4) female lived in other accommodation.

### Gender differences in drug use in the past 12 months.

Table 1 shows that T test for significance indicates that there is no significant difference in the use of licit drug by gender but there is significant difference in the use of illicit drug (Licit drug use,  $t=1.576$ ,  $p=.116$ ;  $p>.05$ ; Illicit drug,  $t=.161$ ,  $p=.032$ ;  $p<.05$ ;  $p<.05$  level of significance.

**Table 1 - T test for Gender differences in drug use in the past 12 months. University in Georgetown, Guyana, 2012**

Sample characteristics	Gender		T	df	p
	Male	Female			
Licit drug	0.41	0.34	1.6	261	.116*
Illicit drug	0.06	0.043	2.2	261	.032†

\* $p>.05$ ; † $p<.05$  level of significance.

### Level of peer Influence by gender

In Table 2 the levels of peer influence for male and female respondents were low as indicated by mean scores of 2.4 and 2 respectively indicated. The level of peer influence of participants was not significantly different by gender ( $p$  value was .559,  $p>.05$ )

**Table 2 - T-test for significance on the level of peer influence by gender. University in Georgetown, Guyana, 2012**

Sample characteristics	Gender		T	df	p
	Male	Female			
Level of peer influence	2.4	2	-.585*	261	.559

\* $p>.05$ .

### Relationship between peer influence and drug use in the past 12 months

Table 3 shows that the level of peer influence had positive weak correlations with the licit (.353) and the illicit (.155) drugs among university students. The correlations were significant (Licit drug,  $p<.01$ ; Illicit drug,  $p<.05$ ).

**Table 3 - Spearman correlation analysis. University in Georgetown, Guyana, 2012 (n=263)**

Variables	$r_s$
Level of peer influence and licit drug use in the past 12 months	.353*
Level of peer influence and illicit drug use in the past 12 months	.155†

\* $p<.01$ ; † $p<.05$ .

### Relationship between drug use, peer influence and gender

In Table 4 the result of the study shows that male participants had a stronger significant relationship with peer influence and licit drug use than the females (male,  $n=76$ ,  $p<.05$ ; female,  $n=187$ ,  $p<.05$ ).

**Table 4 - (Chi square test) Cross tabulation of drug use, peer influence and gender. University in Georgetown, Guyana, 2012**

Drug use	Gender	Value	df	Sig (2 tailed)
Licit	Male	34.01	8	.000*
	Female	15.3	5	.009*
Illicit	Male	27.6	20	.120
	Female	15.3	25	.62

\* $p<.05$ .

## DISCUSSION

### Licit drug use in the past 12 months by gender

The level of licit drug use by male and female participants had overall mean scores of 0.407 and 0.34 respectively (Table 1). The level of illicit drug use by male and female participants had overall mean scores of 0.06 and 0.043 respectively (Table 1). T test of significance indicates that there is no significant difference in the use of licit drug by gender but there is significant difference in the use of illicit drug (Table 1, licit drug use,  $t=1.576$ ,  $p=.116$ ;  $p>.05$ ; illicit drug,  $t=2.161$ ,  $p=.032$ ;  $p<.05$ ).

As regards gender differences in the level of drug use, the result of this study showed that gender was only significantly different in the use of illicit drug in the last 12 months. The overall mean scores of the male and female participants' use of illicit drugs in the past 12 months indicate that the males were more likely to use more drugs than the females (Table 1). In support of the result of this study, it was noted in another study that over two-thirds (64%) of those who reported using cannabis at riskier levels were males.<sup>16</sup> Similarly studies of the epidemiology of drug use in the United Kingdom showed agreement that men are more likely than women to smoke, drink heavily, and use illicit drugs.<sup>17</sup> However when viewed through the framework of integrated social development models as stated<sup>17</sup> it seems more appropriate to view drug use as the preserve of either gender, determined by the complex interaction over time of other major factors such as age, parental monitoring, and peer group associations. Bloor indicated in his study that a liability to substance use was influenced mainly by genetic factors in girls but environmental factors in boys. The environmental included family and peers.

### Level of peer influence by gender

The levels of peer influence of male and female respondents were low as indicated by the mean scores of 2.4 and 2 respectively (Table 2). T test for significant difference shows that there is no significant difference between the level of peer influence of male and female participants ( $p=.559$ ;  $p>.05$ ).

The result of this study shows that the level of peer influence among the participants was low. In contrast, the results of several studies have shown a strong influence of perceived substance use of close friends,<sup>8</sup> also that having substance

using friends puts an individual at risk for initiation or for the escalation of substance use. Thus minimal use of drugs by the participants in this study might have been due to the fact most of their friends do not use drugs. Thus there seems not to be a strong influence to use drugs by the few friends who use drugs.

Nevertheless, there are certain variables which could have accounted for this, which were not considered in this study. For example as noted that the context in which youths spend time with their friends may moderate the potential for peer influence.<sup>15</sup> He added that if the youths may have delinquent friends who use drugs and may spend most of their time together only at school then the potential for peer influence leading to individual escalation in substance use may be small. Related to this assertion was noted that the social development model hypothesizes that an individual's behaviour will be shaped by the amount of association with various types of individuals and by the level of involvement in pro social and antisocial activities.<sup>11</sup> Thus it is worthy of note that this study ascertained that only about 4% of the participants were residents on the university campus, about 80.6 % of them lived with their families and another 4% lived with other relatives. This indicates that most of the participants might not have been spending most of their time together not even on the campus to engage in anti-social activities.

The result of this study also suggests that the level of peer influence of the participants did not depend on gender. On the contrary, some other studies have established a relationship between gender and peer influence. As previously indicated, most studies have shown that females are more easily directly influenced by their peers as compared with males.<sup>5</sup>

### Relationship between peer influence and drug use in the last 12 months

From Spearman correlation analysis, this study shows that peer influence had positive correlations with licit (.353) and illicit (.155) drug use in the last 12 months. Both correlations were significant (Licit drug,  $p<0.01$ ; Illicit drug,  $p<0.05$ ). The positive correlations suggest that greater peer influence is associated with greater probability of using both the licit and illicit drugs and vice versa.

In this study, the low level of peer influence for both male and female participants might have accounted for their minimal use of drug; more

so peer influence is significantly associated with both licit and illicit drug use. The result of this study therefore suggests that peer influence is a protective factor, which motivates peers of male and female participants in engaging in pro-social behaviour rather than in anti-social behaviour such as drug consumption. This is in line with the social development model which recognizes that individuals learn behaviours through socialization. The social learning process produces positive or problem behaviours.<sup>11,13-14</sup> Thus participants in this study were likely to have had more positive than negative influences from peers.

### **Relationship between peer influence, drug use in the last 12 months and gender**

This study indicated that gender had a significant association only with the relationship between peer influence and licit drug use in the past 12 months. The male participants more than the female seemed to have a higher significant association with the relationship between peer influence and licit drug use. This is in keeping with the findings earlier noted in a study which indicated that males might be more reactive than females to social pressures supportive of heavy drinking.<sup>19,22</sup>

The results of this study have curriculum implications for a core curriculum on drug related content. A core curriculum in the context of this study means a curriculum that has a balance between organised knowledge and social human problems. The curriculum is the integration and seeking the relevance of knowledge to problem solving activities in real life.<sup>23</sup> It reflects a relationship between organized knowledge. Core curriculum organization is obtained by the arrangement of subject matter to reflect current social problems or trends among other principles.<sup>23</sup> As earlier stated, the introduction of a core curriculum on drug related contents in the university programmes, would serve as an awareness programme of drug related health and social issues. This would be a preventive measure of drug use. As noted by The Ministry of Culture, Youth and Sport in Guyana,<sup>3</sup> prevention is the most desirable approach to solve the problem of drug use. Drug rehabilitation is a multi-faceted long term process.<sup>21</sup> She added that the rehabilitation process is complex since it requires the help of drug addiction professionals to help addicts to manage their lives.

The core curriculum should be a compulsory course for all students like Use of English. Consider-

ing the different programmes in the university, this study suggests that more than one core curriculum should be introduced. This is because some of the components of Drug Demand Reduction programme (Prevention, treatment, and rehabilitation) may not be relevant to certain faculties. For instance a core curriculum on the prevention component may be relevant for students in School of Education and Humanities, Faculties of Forestry and Agricultural Sciences and Technology while one or all the three components may be relevant for students in the Faculties of Health Sciences, Natural Sciences, Environmental Sciences and Social Sciences.

### **CONCLUSION**

In this study, peer influence is associated with drug use and it is interesting to note that the level of drug use by both male and female participants was very minimal. This might be attributed to their low level of peer influence. Therefore this study suggests that peer influence was a protective factor. There were no gender differences in the level of peer influence but there were gender differences in the use of illicit drug and in the relationship between peer influence and drug use. Although the level of drug use by both male and female participants was minimal, this study provides a specific direction for preventive measures and lends itself to suggest the introduction of a core curriculum on drug related content in the academic programmes of the university in Guyana. This would serve as an awareness programme of the phenomenon of drug use.

### **Limitations**

Since purposive sampling technique was used to obtain the sample for this study, the results cannot be generalized to other similar population.

### **Recommendations**

Considering the sampling technique used for this study, a similar study should be carried out in a wider community outside of the university. The wider community should include the secondary schools.

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