International Research Capacity-Building Programme for Health Related Professionals to Study the Drug Phenomenon in Latin America and the Caribbean

Research Proposal

The Role of Family Relations, Spirituality and Entertainment in Moderating the Relationship between Peer Influence and Drug Use among University Students

Group VI
2011 - 2012
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# TABLE OF CONTENTS

PARTICIPANTS ............................................................................................................. 2  
PRINCIPAL INVESTIGATOR AND ADVISORS.......................................................... 2  
LIST OF TABLES ........................................................................................................... 6  
LIST OF FIGURES ....................................................................................................... 7  
INTRODUCTION .......................................................................................................... 8  
JUSTIFICATION ........................................................................................................... 11  
Background of Participating Countries and Their Universities ................................. 14  
Barbados ..................................................................................................................... 14  
Brazil ......................................................................................................................... 15  
Colombia .................................................................................................................... 16  
Costa Rica .................................................................................................................. 17  
Ecuador ....................................................................................................................... 18  
El Salvador .................................................................................................................. 19  
Guyana ....................................................................................................................... 20  
Jamaica ....................................................................................................................... 21  
THEORETICAL FRAMEWORK .................................................................................... 22  
Social Control Theory ................................................................................................. 23  
Differential Association Theory .................................................................................. 23  
Strain Theory ............................................................................................................. 24  
Justification for the Integrated Theory Approach ....................................................... 25  
CONCEPTUAL FRAMEWORK ..................................................................................... 29  
OPERATIONAL FRAMEWORK .................................................................................... 30  
LITERATURE REVIEW ................................................................................................. 31  
Understanding Peer Influence as the Manifestation of Social Influence and Drug Use .... 31  
Social Norms and Individuals ..................................................................................... 32  
Socialization by Friends and Friend Selection with Respect to Drug Use ..................................................................................... 33  
Explaining Peer Socialization ..................................................................................... 34  
Explaining Peer Selection ............................................................................................ 34  
How important are Best Friends, Close Friends, or Crowd Affiliations to Drug Use? ... 35  
How Positive Parenting Behaviours Impact Peer Influence On drug Use behaviours .......... 37
APPENDIX E – Memorandum of Understanding ................................. 83
APPENDIX F – Recruitment Poster .................................................. 84
APPENDIX G – Recruitment Advertisement ................................. 85
APPENDIX H – Recruitment Hand Flyer ........................................ 86
APPENDIX I – Letter to University Administration ..................... 87
APPENDIX J – Recruitment Script .................................................... 88
List of Tables

Table 1: Countries, Cities, Code, Universities, Population undergraduate and Sample size,
(CICAD-CAMH group VI, 2011-2012)..................................................................................................... 45
List of Figures

Figure 1: Socio-cultural Factors and Drug Use among University Students........................................ 29
Figure 2: Peer Influence and Drug Use among University students ................................................. 30
INTRODUCTION

As a consequence of the globalization process, many public health issues have come to be seen as affecting all nations (Wright, Caufield, Gray & Olsen, 2005). Drug use has been an issue of public health and broader community concern for some time. However, despite there being countries which proclaim or may proclaim successes in controlling the demand for illicit drugs, drug abuse throughout the world continues to grow. There is also the recognition that illicit drug use particularly in some developing countries has increased dramatically. This is especially true in Latin America and the Caribbean and in this hemisphere, there are few countries which manage to escape its baneful effects (UNDOC, 2003; Shifter, 2007).

In 2010 UNODC observed that “the global market for illicit drugs is valued at over US$ 300 billion annually”. This body has also suggested, “If the illegal drug industry were a country, its gross national product would rank twenty-first in the world, right after Sweden”, (pg. 44). Other research on the prevalence of illicit drugs has shown that there is an unprecedented increase in drug use by diverse groups of young people of all socioeconomic backgrounds (Measham, Parker & Aldridge, 1998). This appears to be occurring within the context of increasing rates of other social challenges such as youth crime and violence, family disorganization, domestic or family violence, among others. All of these are societal ills which can affect the youth of a country. Strong arguments could also be made for the conceptualization of drug misuse, as one of a range of health risk behaviours which include school problems and delinquency; thus adding to the regions health and welfare problems. It therefore, seems clear that no group is immune to this social debilitation and thus, there are legitimate concerns about drug use behaviours among university students since this group is believed to represent the highest level of productive potential in many developing nations.
The CICAD hemispheric strategy which was approved in 2010, embraced a range of initiatives or guidelines to tackle the region’s drug challenges. It emphasize on institutional strengthening, demand reduction, supply reduction, control measures and international cooperation. Under demand reduction, its member states are encouraged to treat this as a priority component to guarantee a comprehensive and balanced approach to the world drug problem.

This is premised on the notion that drug abuse is social problem which require a multi-sectoral and multidisciplinary approach. This document also suggests that drug reduction policies should include as essential elements, universally selective and indicated prevention options, early intervention, treatment, rehabilitation and related recovery support services; and these should be driven by the goal of promoting health and social well-being among individuals, families and communities as mechanisms for reducing the adverse consequences of drug abuse. Alongside these recommendations, there is recognition that various governments in the region, in their fight have essentially relied on supply reduction strategies (CICAD, 2010). Thus, there is need for more research to assist with the measurement and evaluation of outcomes associated with past or existing policy options as well as to inform new policy.

The consumption of drugs by youth is also recognized as behaviours that involve culturally mediated learning processes (Hallan & Taylor 2010). Cultural agents of socialization such as the family, peers, religion and the entertainment industry are among the social institutions from which young adults and adolescents, cognitively assimilate information and become influenced, and by extension influence the behaviours of others (QEC-ERAN, 2005). Cultural agents therefore have the potential to affect the traditional uses of alcohol, tobacco and other drugs, as well as the norms or social practices governing the use of specific substances within that culture (UNODC, 2004). This Multi-centric research study will attempt to ascertain
the cultural factors which correlate with drug consumption among university students in seven (7) universities across eight (8) in Latin American and the Caribbean.

A previous study on peer influence and drug use was undertaken by an interdisciplinary group under the International Research Capacity-building Programme for Health Related Professionals to study the drug phenomenon in Latin America and the Caribbean in 2007. This study set out to analyze the Influence of peers on drug use among university students in five Latin American countries; and currently serves as an important precedent for our work by directly reviewing the issue of the peer group and drug use. However the focused perspective, in this research revolves around the moderating effect presented by socio-cultural factors within the relationship between peer influence and drug use among the student population from 8 different countries. Also, this study propose the examination of spirituality as one of the variables being investigated, thus presenting some uniqueness among other known investigations in the region.

This proposal is presented in the following sequence: Following the introduction, the next section will include the justification for this research study which include information about the drug problem in each country that hosts the participating universities. The supporting literature for the study’s research question will then follow. A detailed description of the theoretical framework underlying this research and how it specifically applies to this study is then presented. Next, is the methodology, identifying the characteristics of the population, the sampling method and sample size; an explanation of the instruments and measures being used, as well as the data collection and analytical procedures. Ethical considerations are also discussed. Finally, the research questionnaire, the informed consent forms and other relevant documents to be used are presented in appendices.
JUSTIFICATION

Drug use and abuse is a problem that affects Latin America and the Caribbean. The location of these countries supports the movement of illicit substances and/or the illicit trade of licit substances between South and North America. This condition also precipitates the internal and external motivations of individuals in the region towards drug use and abuse. Given that many young people, generally embrace a culture of adventure or experimenting, this culture combined with the movement of illicit substances through the region renders many of them, vulnerable to drug use or abuse. Thus, it is imperative to engage in research, the findings of which could be used to generate relevant policy and interventions to prevent or reduce drug use or abuse from the corridors of our universities, more so, that these are the centers of knowledge creation.

For many authors such as Bry (2002), drug prevention policy should be based on scientific knowledge that addresses why some people abuse drugs and others do not. This is what is known as risk factors and protective factors. Recent epidemiological statistical studies related to substance use, show evidence that epidemiological investigations have involved general populations, and have excluded the university population and other special populations (OAS, 2011).

College students face situations that make up a special process since many of them are at the life stage that presents a series of moral conflicts which are both cognitive and affective; and if not handled properly, could spiral out of control.

Cultural, social and economic factors are likely to have a direct impact on the pattern of consumption of licit and illicit drugs, with a consumption model. This may originate in the family or among a group of friends because in these social settings, subjects may feel compelled
to respond in a manner consistent with the social demand or pressure; and also to obtain social rewards. According to a recent study conducted by Rojas Valenciano (2010) among university students in Costa Rica in 2010; 10.3% of university students agree with the use of tobacco in social gatherings while 33.6% disagree. 77.6% reported that they do not consume illicit drugs nor tobacco during family and religious activities, unlike alcohol, which is reportedly, consumed by 51.4% of the sample. Of this total, 28.0% report that this form of consumption occurs on a frequent basis. The respondents were also asked to report their reasons for drug use (inclusive of alcohol and tobacco) and their responses were analyzed as follows: 1. To enjoy a sense of power when in the presence of others - 22.4%; 2. To have fun and pleasure with others - 51.4%; accompanying; 3. To be part of the couple or friends group - 36.4%; and 4. To earn the respect of others when in their presence - 10.3%. Finding of these kinds also add to our current rationalizations and call of support to the current research emanating from this proposal support.

Another of our rationalization lays the recognition that the student population in Latin America and the Caribbean is constantly growing. This is partly due to the intensification of governments’ effort and popular support or calls, to increase literacy rates, improved quality of life available to citizens in general and the process of globalization (Casquero, 2006). At the same time, these changes attract other and sometimes parallel challenges, among which drug use and abuse appears to be no strange phenomenon with the larger population set within some Latin American and Caribbean countries. Additionally, there is the recognition that much of the current prevention is focused on students in primary and secondary schools throughout the region. This observation could be supported by an informal review of prevention messages in the media and other prevention activities which are driven by prevailing public policies. In a vast way the majority of university students are targeted by the regime of policy related prevention
messages/activities. Undoubtedly, this is an unjustified scenario. Hence our current effort to study the uniqueness of this cohort population (university students) within the framework of peer influence and drug use.

This study therefore aims to provide scientific information to support an interpretative understanding of the relationship between peer influence and drug use among university students; by probing the interactions of a specific set of psycho-social factors, namely, religion/spirituality, entertainment and family relations, as moderators.

Generally the researchers conducted in the region are related to drug use focus on substances that are most prevalent, but the present approach considers the consumption of not only most frequently used but also others such as amphetamines and crack in the university population.

As James Mack, executive secretary of Inter-American Drug Abuse Control Commission (CICAD), states in his report: “Hemispheric Drug Strategy” (2010) "the scientific evidence should be the base for the establishment of policies on the drug phenomenon, which would mean that our research would be this scientific base, to make decisions about what to do, about drug use by college students from Latin America and the Caribbean, because from this research would be obtained actual and real data” (CICAD/MEM, 2010).

Finally this research will also provide an overview of protective factors with which our college students have and evaluate risk factors in order to plan prevention strategies, promoting healthy habits and implementation of new policies for the benefit of students and involve them in this transformation process.
Background of Participating Countries and their Universities

Barbados: has a geographic area of 430km² and is situated 74.53 miles east of the Windward Islands and 285.7 miles north-west of Venezuela. The country has an approximate population of 275,338 (CICAD, OAS & SMS, 2010). Barbados in 2008 had a GDP of B$11,465 per capita (CICAD, OAS and SMS, 2010). With regards to the per capita gross domestic product, in 2010 there was annual percentage growth rate of -1.0 % (ECLAC, 2010). Barbados, because of its strategic geographical location, is highly placed on the list of ideal drug transit hubs (CADC, NCSA and UNESCO, 2008). Alcohol, tobacco and marijuana, in that order, have been found to be the three most commonly used drugs among the adult population of Barbados (NCSA, CICAD and OAS, 2006). It has also been found that males generally reported higher current use rates than women. Social events have been found to be the main location for the use of alcohol of all strengths and the main location of use for marijuana has been found to be the home and then the community.

The University of the West Indies, Cave Hill Campus, is one of three campuses of the University of the West Indies in the Caribbean. It is located in the parish of St. Michael. It is the smallest of the three campuses geographically; and has a total student population of 8674 (UWI-Cave Hill campus student statistics 2010-2011). Of that total 7582 are undergraduate students in the six faculties (Humanities and Education, Faculty of Law, Medical Sciences, Pure and Applied Sciences and Social Sciences). According to the NCSA (2007), the least utilized legal drugs by tertiary level students were inhalants, fanta (GHB) and cigarettes. Conversely, the most utilized legal drugs were pain killers, and alcohol. When legal and illegal use of drugs were analyzed, it was found that female students were less likely to use alcohol, cigarettes, marijuana or fanta (GHB), but utilized pain killers to a greater degree than males.
Brazil: The Federative Republic of Brazil has an area of 8,514,876.6 km² with a population of 190,755,799 (2010) inhabitants with a median age of 28.2 years. There are 26 States and 1 Federal District. The overall literacy rate stands at 89.6%. The Gross Domestic Product (GDP) per capita is reported at U.S. $ 8,295.00 (2008) (CICAD/OAS/BRASIL, 2010).

Regarding the use of drugs, the estimated dependence on alcohol and tobacco among the Brazilian population is at 12.3% and 10.1%, respectively. The use of cannabis is ranked first among illicit drugs 8.8%. These are followed by drug in lifetime use (except tobacco and alcohol), solvents at 6.1%; cocaine, crack and merla at a prevalence rate of, 2.9%, 0.7%, 0.2%, respectively. Non-prescription drug use prevalence is reported as follows: anxiolytics at 5.6% and stimulants (anorexigens) 3.2%, respectively (CARLINI, et al. 2005).

Brazil has 2,252 institutions of higher education with more than 5.8 million college students. In the first national survey carried out almost 49% of students surveyed reported that they have tried illicit drugs at least once in their lifetime. Additionally, 80% of respondents who were less than 18 years of age reported they had drunk an alcoholic beverage. As for lifetime use, the most frequently reported drugs were alcohol (86.2%), tobacco (46.7%), marijuana (26.1%), inhalants and solvents (20.4%), amphetamines (13, 8%), tranquilizers (12.4%) cocaine hydrochloride (7.7%), hallucinogens (7.6%) and ecstasy (7.5%) (SENAD, 2010).

The Federal University of Santa Catarina (UFSC), was established in December 1960. It is located in the Santa Catarina State southern Brazil and has four campuses, localized in, Florianópolis, Araranguá, Joinville and Curitibanos cities. The campus which will host this research in Brazil is located in Florianopolis. It has 11 educational centers with 54 faculties in total. The total population of university students is 34,195 (UFSC, 2011).
**Colombia**: is located in the northwest of South America with territory in both hemispheres, the western Pacific coast and the Atlantic coast, and across the equator. It has a total area of 2,070,408 km². It has a population of 46,051,448 million (Departamento Administrativo Nacional de Estadística [DANE], 2011). The gross domestic product (US$ per capita) is $5,416 (2008). Colombia's economy recorded a growth rate of more than 3% in 2011, according to the Bank of the Republic of Colombia.

In Colombia, drug consumption affects many persons. Alcohol is the substance mostly consumed. Available statistics show that 86.1% of the population between 12 years to 65 years has tried it. Tobacco use is reported at 44.5% for those individuals who have tried it at least once in their life. Regarding illicit substances, marijuana is the preferred substance in this category and it accounts for more than 88.08% of the have tried it. For cocaine, the prevalence rate is 2 in 5% among respondents. For stimulants, the prevalence of the population between 12 years to 65 years is 0.23%. (CICAD/MEM/COLOMBIA, 2010).

In 2010 the DNE published the results research the drug consumption in university students, found the following: 24.9% of the respondents have tried marijuana at least once in their lifetime, 5.3% report on the use of cocaine, tranquilizers and benzodiazepines 5.1%. In relation to licit drugs, the study also found that: the 74.5% of the students have tried alcohol at least once in their lifetime and similarly, 51.5% for tobacco. (Ministerio de la Protección Social and Dirección Nacional de Estupefacientes, 2009).

The Foundation University Health Sciences is located in Bogotá. It is a private institution of higher education. The undergraduate population as at January, 2011 is eighteen hundred students (1,800). The size it has a land area of 9918, 4 m². The university has seven faculties:
Costa Rica: is a Central American nation, located between Nicaragua and Panama. The country has 51,100 square kilometers (19,730 square miles) of land. (CICAD/MEM/COSTA RICA, 2010). The country's population was estimated at 4,509,290 (year 2009). Over 60% of the population is between the ages of 15 and 64, and only 5% of citizens are over 65 years old. The overall literacy rate is approximately 96% (INEC, 2011). Costa Rica has a Gross Domestic Product of US $ 29,283,80 in 2009. (CICAD/MEM/COSTA RICA, 2010).

The Costa Rican Institute of Drugs is the institution responsible for the planning, monitoring and conducting evaluations for all substance abuse prevention and control programmes (CICAD/MEM/COSTA RICA, 2010). The use of licit and illicit drugs in Costa Rica is a major concern, with the most frequently used licit drug being alcohol and the most frequently used illicit drug being marihuana. Alcohol is the substance most consumed in the country; statistics show that between 41% and 62% of the population have tried it. This is followed by tobacco, with a range of 21.5% to 41% of the population reported that they have tried at least once in their life time on 2006. (CICAD/MEM/COSTA RICA, 2010).

Regarding illicit substances, marijuana is the substance of major preference with statistical information showing, between 4% and 11% of general population has tried. Available statistical evidence shows for 2006, between 3.2% and 3.7% the percent of people would have tried these psychoactive and other stimulant substances, at least once in their life time. (CICAD/MEM/COSTA RICA, 2010).

The study will be carried out at the University of Costa Rica which has an average population of 34,661 full-time students, most of whom are distributed on the main campus (Sede
Rodrigo Facio), located in San Pedro de Montes de Oca. There are six major areas of knowledge concentration. These are; Arts and Humanities, Basic Sciences, Agro Sciences, Social Sciences, Health and Engineering which form the apex of the academic system. This University has 13 Faculties, 46 Schools, and 42 Research Units (UCR, 2011). Concerning drug consumption among university, one study was developed among nursing students showed 44.9% of the students in the sample had consumed alcoholic beverages and 1.4% smoked marijuana in their lifetime (Rojas, 2010).

**Ecuador**: is a nation in northwest of South America with a surface area of 245,370 Km2. The population total is 14,306,8761 habitants The annual growth is 1.91 %. Ecuador is a Republic divided into 24 provinces. The per capita gross domestic product (GDP) for 2010 was US $ 8,3791 and annual exports totaled US$ 9 billion (INEC 2010).

The prevalence of drug consumption in the general population is described with rates of Alcohol (76.9%), Tobacco (46.8%), Marijuana (4.3%), and CLH cocaine (1.3%) (CICAD/MEM/ECUADOR, 2010). With regards to university students the following risk perception data is provided: Often smoking Cigarettes (84.4%); often drinking alcoholic beverages (82.5%); occasionally smoking marijuana (43.8%); often smoking marijuana(77.7%); occasional use of cocaine HCl or crack (57.1%); often take Consuming take cocaine HCl or crack (84.6%); occasionally use of other substances that contain cocaine (61.7%); often use other substances contain cocaine (81.5%); occasional use of ecstasy (35.4%); often use of ecstasy (67.65%); occasional use of other types of methamphetamine (3.5%); and often use of other types methamphetamine (60.6%), (CICAD/MEM/ECUADOR, 2010).
The Technical University of Manabí will host the study. It is located in the city of Portoviejo, province of Manabí. It is located in the city of Portoviejo, province of Manabí. It is located in the city of Portoviejo, province of Manabí. It is located in the city of Portoviejo, province of Manabí. It is located in the city of Portoviejo, province of Manabí. It There are ten (10) faculties, thirty-three careers options or academic courses and a student population of 18,000 (UTM/Guía de Carreras, 2010).

**El Salvador**: Is a Central American country, border the North Pacific Ocean between Guatemala and Honduras. It has a land area of 20,720 Km² and a coastline of 308 Km². (Wolfram Alpha LLC, 2011). The population is 6.19 million people with a density of 299 persons per km². The population growth 0.445% per year with life expectancy ranked at 72.3 years. The median age is 22.5 years. The Gross Domestic Product (GDP) reported in 2010 estimated per capita rate of $7,300 (CIA World Factbook, estimated 2010).

The consumption drugs for general population occur among persons who are between 12 to 71 age, in the last year prior to the survey report of 2005. Other details of this survey, unlined the following prevalence rates: alcohol and tobacco 18.6% and 14.6%, respectively. The most prevalent drugs are marijuana 6.1%, cocaine 1.9% and solvents e inhalants con 1.5% (CNA, 2005). According a school survey SIDUC 2008 (CICAD/MEM/EL SALVADOR, 2010), El Salvador showed past year prevalence of psychoactive substance use among students in seventh, ninth and eleventh year of the schooling structure were: alcohol, 20%; cigarettes, 15%; and marijuana, 3.5%.

The prevalence of use among undergraduate students for substance identified hereafter show in the last year prior to the survey report of 2011 indicate, 40% had consumed alcohol, tobacco 21%, marijuana 3.3% and tranquilizing 1.4% at least once between age 16 to 19 years old (CICAD/OEA/CNA, 2011). About poly consumption drugs in the last year of the survey is major for alcohol plus marijuana was 1.2% and to alcohol plus smoking plus marijuana was 1% (Bautista, 2011). According to Rivera (2009), exist 30% to 40% of university students could be
in risk, from cause of weak family relationship and at least two out of 10 students know peers who use drugs and even their friends.

The Universidad Evangélica de El Salvador is a private non-profit, located in San Salvador. The student population is 2262. There are six faculties, namely, Medicine (1015 students); Dentistry (191 students); Social Sciences (379 students); Law (161 students); Engineering (197 students); and Business Sciences (319 students) (Academic data UEES, July 6th 2011).

**Guyana:** This country has an area of 214,970 square kilometers and 2462 square kilometers of borders. It is located on the northern coast of South America, and is the only English-speaking country on that continent. The country has a multi-racial population which according to the last population census of 2002 is reported at 751,223. The country’s Gross Domestic product is measure at G$453 billion with an annual growth rate of four percent (4%) over the past for years. Current external reserves are reported at US$780 million with a fiscal deficit of four percent (4%) (National Budget Paper of the Ministry of Finance, 2011).

Over the last decade or so there were two notable airdrops of large quantities of cocaine into our hinterland region as well as the discovery of several illegal airstrips. The eradication of illicit crops is reported at country 19.50 hectares in 2009, 44.05 hectares in 2008 and 64.70 hectares in 2007, using forced manual eradication. Guyana does not have an estimate of drug use among the general population as a whole or for any part of the country or the population (OAS/CICAD, 2010).

The University of Guyana is Guyana’s premier tertiary education institution and will be one of the host institutions for this study. It was established in 1963, and has over the years expanded in both its intake of students and the number of academic and professional
programmes offered at the undergraduate and post graduate levels within seven faculties and schools. At the close of academic year 2010/2011, the number of students enrolled was 5937. Of this total, approximately 96 percent were undergraduate students with the remaining four percent representing graduate students (Office of the Registrar, University of Guyana, 2011). There is no available statistics on drug use among students of the university but anecdotal evidence gleaned from media and law enforcement reports suggest some prevalence.

**Jamaica:** is located in the northern region of the Caribbean Sea. The country has a land area of 10,991 sq. km and a population of 2,698,800. The island has a GDP per capita of US$4,600 (2006). Life expectancy for men is 71.1 years while for women it is 74.6 (2002) (CICAD/MEM/JAMAICA, 2009).

The island’s location between South and North America makes it one of the prime targets for the transshipment of cocaine which, along with marijuana with the latter being mostly home-grown. These are also the two most widely used illicit substances. The use of alcohol and tobacco by adolescents is also cause for concern. Recent studies by the island’s National Council on Drug Abuse are indicating that 52% of school-aged youths currently drink alcohol while 31% currently uses tobacco products (NCDA, 2010).

Many of the island’s future leaders now attending universities are also showing worrying trends in respect of mood-altering drug use. A recent unpublished manuscript of CAMH and OAS/CICAD (2010) is showing that approximately 27.5% and 6.1% of the students of one university are currently using alcohol and marijuana respectively.

Among the several universities on the island is the Mona campus of the
regional University of the West Indies (the other two campuses are in Barbados and Trinidad and Tobago). This institution boasts a long history and outstanding reputation that combine to attract approximately 10,000 undergraduate students each year (enrolment for last two years). This population is coming largely from the secondary level education system where the use of alcohol and marijuana is showing worrying trends (NCDA, 2010). This underlines the need for research to be conducted among the students of this and other universities

THEORETICAL FRAMEWORK

There are a number of theoretical postulations as to why various persons may be inclined to consume or abuse illicit and licit drugs. When particular groups such as; youth and young people are singled out the theoretical explanation can be further narrowed down to perhaps provide a better context in which to guide the reader’s understanding. As it relates to the impact that peer influence has on one’s drug use, Social Control theory, Strain theory a Social Learning theory such as: Differential Association theory can be used. However, the argument can be made that none of the above mentioned theories can adequately account for the multiplicity of reasons that have been cited as to why individuals deviate from normative prescriptions and endorse criminality as an example of the extreme consequences or (as it relates to our study’s concerns) use licit or illicit drugs. A more cutting edge explanation as it relates to the phenomenon under investigation has been posited by Delbert Elliott and colleagues who capture the multi-faceted range of explanation under the umbrella term of the Integrated Model of Delinquency which includes the integrated Social Control (ISC) theory, (NIDA, 1993). Simply put this model is a further elaboration of the theory of Differential Association (as forwarded by Sutherland) and a
rich integration of the most pertinent elements of the Strain Theory, and Social Control theory.

**Background to theories that constitute the Integrated Social Control (ISC) Theory/Integrated Model of Delinquency.**

**Social Control Theory- Travis Hirschi**

The Social Control theory, generally attempts to explain why certain individuals behave according to the normative instructions. Thus, behaviours in conformity to social norms can be found in the social bond that is established between the individual and social institutions. This bond develops early in childhood through attachment to significant others (parents, teachers, peers), which serve as models in accordance with social norms.

The main ideas for Travis Hirschi, emphasize the existence of attachment, commitment, involvement and belief, (Jensen, n.d.). Attachment refers to the emotional ties to parents, school and friends. The commitment relates to the conventional aspirations and behaviour consistent with these aspirations, such as: for example, attending college. Involvement includes participation in conventional activities, typically those related to school or work. Beliefs consist of respect for the moral values and rules of the society, (Jensen, n.d.).

**Differential Association -Edwin Sutherland**

Edwin Sutherland noted that criminal behaviour is found in all regions and classes, (Jensen, n.d.). He proposed a theory of differential association by which the criminal behaviour is learned through contact with criminal patterns that are present, are acceptable and get some reward in the physical and social environment of a person. A person "is incorporated into criminal behavior if and only if the weight of the favorable definitions exceeds the weight of the
definitions unfavorable”, (Jensen, n.d.). Sutherland focuses on the description of the process of criminal behaviour, where he notes that criminal behaviour is learnt during interaction with other people who have already incorporated some criminal values.

**Strain Theory- Robert Agnew**

Agnew’ form of strain theory is an open revision of the original postulations of strain theory by Merton who limited his analysis to variables such as social class as the main determinant of delinquency in particular, (“Deferred compensation”, n.d.).

Subsequent researches have contested this notion as the theory does not consider notions such as: the quality of family relationships. However, Agnew explored other factors that could help to account for delinquent acts. The central question that he posed was “when people are treated badly they may get upset and engage in crime”? (“Deferred compensation”, n.d.).

Delbert Elliott and others have cited the Strain, Social Learning and Control Theories as being insufficient in their elaborations on delinquent behaviour and drug use in general. They note that the main deficiency of the Strain theory as it relates to drug use is that it does not comprehensively account for some juveniles who embrace delinquency and why other do not.

Similarly, Control theory struggles to posit and explanation for individuals who may become enmeshed in lasting delinquent behaviours despite the absence of rewards of the said behaviours. In addition, Social Learning theories paint an unclear picture of individuals lacking agency regarding the decisions they make about drug use, (NIDA, 1993). It is on these flawed premises that Elliott and colleagues have sought to adopt an integrated approach to delinquency and drug use.
Justification for the Integrated Theory Approach

The drug phenomenon is a very extensive problem which manifests in the social and the larger global environment. The prevalence and use of drugs and by extension the abuse of drugs by youths and individuals alike is a cause for sociological inquiry as it has implications for sustainable development more broadly and more narrowly, ill consequences for the social fabric of the society.

It is commonly known that groups such as; the family, church (or one’s religious/spiritual-commitment) peer groups and the mass media and the influence can be extremely powerful on an individual’s decision making power and undoubtedly influence behaviours. If one is to adopt a functionalist understanding these agents of socialization, it is that they should have a positive impact on individuals which will ensure that the society continues to function as a stable organism. This means that individuals would share a collective conscience which is common to the average members of society and that members’ would more or less conform. However, the ideal is not always the case and as such individuals whether they were properly socialized or not may choose for various reasons to deviate from the norm and use drugs.

There are many benefits to be gained by employing an integrated model approach to understanding the drug phenomenon. According to Lilly et. al, an integrated theory is: “typically is an explanation of crime that attempts to merge the insights from two or more theories into a single framework,” (Lilly, Ball & Cullen, 2011). Furthermore, Thornberry (1989) notes that an integrated theoretical explanation generally is the : “the act of combining two or more sets of logically interrelated propositions into one larger set of interrelated propositions, in order to provide a more comprehensive explanation of a particular phenomenon,” (Muftic, 2007). It is
believed that the Delinquency Integrated Model as purported by Delbert Elliot and colleagues, gives a proper context to the theoretical understanding of peer influence on drug use and the other mediating variables. Arguably, due to the complexities of the drug phenomenon, it would be a grave miscalculation to assume that a single theoretical explanation can account for the drug phenomenon specifically the variables that the study seeks to investigate.

The integrated approach seeks to establish the association that strong bonds between peers have on sustained drug use. This speaks to the influential effect that the deviant behaviours of peers have on others. In addition, the point endorses the earlier position of the importance of socialization as an ongoing process, as it is the re-socialization of individuals by peers at a later stage in their lives and focuses on the impact various groups (i.e. cohesive family structure, religion/spirituality, mass media and peer groups) may have at these stages (i.e. childhood v.s. adolescence). Arguably, this contradicts the traditional ideas posited by the control theory that strong ties to the agents of socialization would translate into adherence to the socially approved norms, (“Deferred compensation,” n.d.).

The first main explanation towards a pathway of delinquency is the simple model. This states that in effect if individuals are attached and exposed to an uplifting individuals and groups epitomised in a strong and cohesive family structure, positive peer groups with common values and moral compass that religious institutions provide and the constructive images that the mass media portrays, this will negate the potential negative delinquent behaviours of individuals. In short, strong bonds to and among these normative agents during childhood equate to an aversion towards delinquent behaviours during adolescents in peer groups. Thus, weak bonds predispose them to delinquent behaviours within other peer groups that have embraced different norms and beliefs especially, as these groups are more likely to be more influential on the individual at that
the adolescent stage, (Lilly, et al, 2011).

Therefore, this introduces a second explanation for deviance and drug use, which takes into account the notion of strain on individuals despite being insulated by proper social bonds with conventional agencies. Thus, despite an individual’s exposure to the positive influences from the conventional institutions and formation of strong bonds with them, properly socialized youths still deviate and engage in delinquent behaviours specifically drug use. Why does this deviation occur if strong bonds were forged earlier in an individual’s life? Elliott et. al centers the argument around the contribution of Strain theory. They note that although youths may have been well socialized by the agents they may have experienced strain at a particular point in their lives which served to weaken the force of the bonds that were previously formed. This in effect sought to nullify the positive impact that was created by the cohesive family unit, the mass media and religious institutions in framing one’s moral compass. Elliott et al succinctly captures the ideas in quotation:

“Elliott and colleague’s model, events can occur in adolescence that create sufficient strain on a youth personally or on the social bond to cause the individual’s “commitment” to and “integration” into conventional society to attenuate” (Lilly et al, 2011).

Elliott and colleagues maintain that this strain can be manifested in a traumatic experience in an individual’s life that would cause him/her who otherwise was highly committed to the achievement of a goal to fail. Therefore, the two main explanations that Elliot et. al posits take into account the varying explanations from the three main theories highlighted previously which gives a more fulsome explanation of drug use among individuals.

The use of the integrated approach has been well documented in some specific studies of substance abuse. For example it has been used in the National Youth Surveys in the continental
United States as it was found to have applicability as it explained the behaviours of youths and their drug use, (NIDA, 1993). Similarly, earlier substance abuse studies conducted by Johnson and coworkers (1987) where the ISC model was used, found that peer groups had a satisfactory role in the causes of adolescent drug use. Some similar explanations were also found in studies by Krohn (1974), Jacquith (1981), and Kaplan and colleagues (1984), (National Institute on Drug Abuse, 1993). Furthermore, more recently in the early 1990s Rodriguez and colleagues have applied the ISC to several analyses that have examined the drug use and delinquency among Puerto Rican youths, as it was found to have great utility to the particular context (NIDA, 1993).

Elliot, Gibbon, Wellford and other scholars are strong supporters of the Integrated Delinquency Model approach, which has been demonstrated, as the theoretical approach has applicability especially as it relates to adolescent drug use. They maintain that integration will further bolster the predictive power of the dependent variable as it will be able to explain more of the variance in the dependent variable because other studies have failed to do so using a single theory, (Muftic, 2007).

Whilst it is expected that the stronger one’s family relations, levels of spirituality and positive engagements with screen based activities may mitigate or protect against drug use, the converse may also be plausible. Simply put if these ties to family relations are weak, one’s level of spiritual is low and the engagement in entertainment activities are mostly loose and opened then these variables can function more as risk factors. It is believed that the Integrated Delinquency theory will be able to do a better job of explaining the intricacies of the relationship that exists between the factors under investigation, due to the inherent complexities that influence human behaviours.
CONCEPTUAL FRAMEWORK

Socio-cultural Factors and Drug Use among University Students

Source: CICAD-CAMH group VI (2011-2012)

Figure 1. Flow diagram showing the main socio-cultural variables and their relationship with drug use among university students.

The horizontal arrow represents the main relationship between the independent variable which is Peer Influence and the dependent variable which is Drug Use. The vertical arrows represent the effect that the moderators: Family, Spirituality and Entertainment have on the main relationship between the Independent variable and Dependent variable.
Figure 2. Operational Framework of the relationship between peer influence and drug use among University Students.

The operational framework as illustrated in figure 2 is to assist with the better understanding of how the variables that have been illustrated in the conceptual framework will be operationalised. The figure includes the main independent variable, moderating variables and the specific constructs that will be examined under them in the research investigation.

The operational figure specifically connotes the main independent variable which is peer influence has a direct relationship/effect on one’s drug use. However, this relationship is mediated by the moderating variables that affect this relationship. These moderators are the
family (specifically bonding, cohesion and communication) that are subsumed under the general heading of family relations. Spirituality is also another moderating variable (specifically an individual’s level of spirituality) and entertainment, which is sub-divided in two main categories: screen based and party based entertainment.

Thus, whilst there may be a direct relationship between peer influence and drug use the relationship may or may not be significantly moderated by the other socio-cultural factors specifically, spiritually (levels of spirituality) types of entertainment, (screen based and party based entertainment) and family (specifically family relations).

**LITERATURE REVIEW**

**Understanding Peer Influence as the Manifestation of Social Influence and Drug Use**

Berkman (2000), offered that social influence is the effect others have on individual and group attitudes and behavior. This study is interested on the effect of peer influence on the drug use behaviour of university students. Thus in its conceptualization, peer influence is explained as the social pressure or extrinsic motivation exerted by one’s peers to behave in a manner acceptable to them. The individual therefore fulfills his peers’ psychological need, to be accepted and to belong to a social network outside of his or her family circle. This social relationship could affect an individual’s behaviour Hence, Johnson and White (2002) cited social development model which 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 which lead to social bonding and the internalization of the attitudes and beliefs of the groups with whom the bonds are formed. Peer influence is therefore recognized as social influence. On the other hand, drug use is conceptualized or explained as the
consumption of psychoactive drugs, namely alcohol, cocaine, marijuana and amphetamine without a legitimate medical prescription.

The influence of peers on drug consumption is a growing concern. The results of several studies have shown a strong influence of perceived substance use of close friends (Read, Wood, & Capone, 2005; Yanovitzky, 2005). Besides, Andrews and Hops (2002) noted that various studies have provided evidence to show the importance of peers in the development of substance use and abuse. The university environment seems to promote this strong peer influence. Pandina, Johnson and White (2002) noted that the university environment provides a safe haven for experimentation with substance use.

**Social Norms and Individuals**

Social norms are the patterns of acceptable beliefs, attitudes, and behaviors (Kameda et al., 2005). Because human development occurs very slowly, individuals are socialized over time by family, school, religious institutions, the media of entertainment and wider functional relationships which come together to serve as the individual’s community and occurring according to the prevailing social norms. Social norms are influenced by but also influence social context such as our family and other social experiences and realities, group membership or group affiliation, sometimes referred to as social networks. The social influence processes that facilitate these reciprocal relationships between social norms and social structures are socialization and selection. Briefly, socialization is the tendency for individuals’ norms and behaviors to be influenced by the norms and behaviors of one’s group and conforming to them. Selection, however, refers to the tendency of individuals to seek-out peers with similar norms and behaviors (Simons-Morton, 2007).
Social context refers to the opportunities for interaction and the contexts within which individual interaction occurs (Webster et al., 2001). Social context determines opportunity for social interaction through social network formation. In its simplest form, a social network is a map of all of the relevant ties between individuals and groups (Valente et al., 2004). Social networks are important because connected people share information and shape each other’s perceptions of social norms. However, it is not just who individuals know or how often they spend time with them but the nature of relationships (e.g., closeness, reciprocity, frequency of contact, bonding experiences, etc.) which combine as contributors to social influence. Group membership (e.g., family, religious, school, peer) is a particularly powerful socializing experience, and people often change their perceptions, opinions, and behavior to be consistent with standards or expectations (norms) of the group (Forgas & Williams, 2001; Kameda et al. 2005).

In summary, the individual tends to experience a range of social influences that may provide some direct effects on the likelihood of drug use, but mainly provide indirect effects through social norms. In the context of this study, it may be useful to think of the strength of various social influences as depending on proximity & frequency of contact, where the closest circles of influence include the people and situations with whom university students associate most of the time (peers, family, religious/spiritual entities and entertainment) and whose influence on their behavior, particularly drug use, is likely to be the greatest.

**Are Individuals Influenced (Socialized) by their Friends, or They Select Friends with Similar Interests with Respect to Drug Use?**

The processes by which peer influence leads to peer group homogeneity of behavior are socialization and selection. Socialization is the tendency for attitudes and behavior to be
influenced by the actual or perceived attitudes and behavior (e.g., norms) of one’s friends and the
conforming properties of group membership. Selection, on the other hand, is the tendency to
affiliate and develop friendships with those who have similar attitudes and common interests
(Simons-Morton 2007).

Explaining Peer Socialization

Peer socialization is the effect of existing social relationships on the formation of social
norms. With socialization, the group accepts an adolescent [or individual] based on shared
characteristics. To be accepted, the individual takes on the attitudes and behaviors of the group
(Evans et al., 2006). Peer socialization can be overt, as in peer pressure during adolescence, or
perceived, where the individual accepts or changes attitudes and behavior based on perceived
group norms that may or may not be actual. Socializing processes that facilitate the uptake of
smoking or drug use can also discourage use (Stanton et al., 1996).

Peer socialization is often referred to as peer pressure, a term that suggests that
individuals, particularly adolescents directly persuade their friends to conform to their behavior.
However, peer pressure is only one aspect of socialization. Although there is evidence that
adolescents do offer their friends cigarettes and that smoking or other forms of drug use is/are
typically initiated in the context of peers (Kirke, 2004; Lucas & Lloyd 1999; Robinson et al.,
2006), much evidence indicate that socialization is mainly a normative process and not one of
overt peer pressure.

Explaining Peer Selection

Unlike socialization, where the person conforms to group norms, selection occurs when
an individual seeks or affiliates with a friend or group with common attitudes, behaviors, or other
characteristics. Selection processes include de-selection. When some members of a peer group
begin smoking or experimenting with other substances, other members of the peer group can respond by dropping out of the group (de-selection); conforming to the new group norm (socialization), risking group disapproval; or living with the dissonance between their norms and the group’s (Andrews et al., 2002).

Selection may be abstract and internal, when a person affiliates with others by identifying with them or with what they represent rather than affiliating on the basis of observable behaviors. For example, adolescents or any individual may identify with groups according to musical preferences, reputation, or interests (Ter Bogt et al., 2006). Such affiliations may at times be highly transient, particularly among adolescents. Selection also involves actual affiliation and, within the limits of one’s social network. People gravitate toward individuals or groups who share their interests and values and provide a supportive context for their own views and behavior (Urberg et al., 1998). Individuals who are interested in particular form of drug use, for example, may select as friends individuals with similarly specific interests (Ennett & Bauman, 1994), although the specific drug use behaviour may be just one manifestation of a constellation of social norms leading to social selection. Thus, there is still a role for peer selection influencing drug use behaviours.

**How important are Best Friends, Close Friends, or Crowd Affiliations to Drug Use?**

Substantial information seem to exists on the independent influences of best friends and peer groups on drug use behaviours but few studies seem to have examined the differential impact of these relationships. Establishing a close relationship with one friend and belonging to a peer group are thought to be more or less equally important in the lives of individuals. Nevertheless, both types of relationships may facilitate essential developmental tasks such as the building of social skills, identity formation, and social support (Giordano, 2003). Yet, best
friends and peer groups may not equally influence social behavior. If influence results from wanting to please friends, then best friends would be expected to be more influential. However, if influence derives from the desire to conform to the group norms, then peer group influence would be expected to supersede the influence of one close friend (Urberg et al., 1997).

Four studies which were reviewed on the phenomenon of best friends and close friends are identified in this paragraph. These studies examined whether best friendships and peer groups function differently to affect adolescent smoking and other substance use. Several findings emerged from these studies. First, the influence of a best friend as compared to the influence of a group of friends varied depending on the behavior under consideration (a best friend’s influence was greatest for behaviours that are illegal) and the stage of use (best friends predicted initiation whereas peer groups predicted transition to current use; Urberg et al. 1997). Second, best friendships and peer groups interacted to better predict drug use (Hussong, 2002). For example, individuals with substance-using best friends showed a decreased risk for substance use if they had other close friends who were not high substance users.

Crowd affiliation is identified as another source of influence on adolescent smoking but perhaps little or nothing is known regarding this, in relation to older individuals (Engels et al., 2006; Michell 1997; Michell & Amos, 1997). Each crowd has a reputation that allows adolescents to recognize youth who share similar beliefs, attitudes, and behaviours. As adolescents affiliate with specific crowds, they tend to embrace the behaviours of the crowd, perhaps as a result of their perceptions of the crowd’s reputation rather than direct peer pressure from crowd members (Kobus, 2003).

In summary, best friends, peer groups, and social crowds all appear to affect adolescents’ smoking and other substance use. Though few studies have examined whether their effects are
independent or interactive, results suggest that effects are dependent on (a) the specific substance used, (b) the stage of use, and (c) relationship characteristics (e.g., adolescent is a member of the group but not central to it). More research is needed to clarify the mechanisms through which these influence processes occur, particularly using samples from older and larger populations, to allow for the simultaneous evaluation of the effects of best friends, peer groups, and social crowds across a range of substances and for different demographic subgroups.

**How Positive Parenting Behaviours Impact Peer Influence On drug Use behaviours**

Parent influence has frequently been found to be associated with behaviour selection by individuals. However, associations have generally been modest (Avenevoli & Merikangas, 2003). For example, household smoking has been identified as a modest predictor of adolescent smoking (Hoffman et al., 2007; Kobus, 2003). The effect of positive parenting practices may be influenced by the strength of family ties (Urberg et al., 2003). One mechanism by which parents can protect their children from substance [drug] use and other undesired behaviors is to discourage their association with friends who engage in these behaviors, provide bad examples [examples of ruined behaviours], and otherwise exert negative socializing influences. Several studies have also demonstrated that parent influence on smoking and other forms of substance [drug] use occurs indirectly by preventing friendship formation with smoking peers (Avenevoli & Merikangas, 2003; Simons-Morton et al., 2001), moderating the effects of friend influence (Dielman et al., 1993), or moderating affiliation with smoking or substance using peers (Engels and van der Vorst, 2003). Urberg et al. (2003) also reported that teens who value their parents are less likely to select substance-using friends.


Entertainment and Drug use

According to Bates and Ferri (2010), “entertainment has been a part of all cultures, from the Chauvet Cave paintings to the iPad” (p.1). Rothman (2003) further states that entertainment is “the storehouse of national values” (p.18) and Zillmann 2000 (as cited in Bates and Ferri, 2010) goes so far as to predict that entertainment “will define, more than ever before, the civilizations to come” (p.1). This insight appears to be true with the advent of globalization where there is continuous transnational circulation of ideas, languages and popular culture. Much academic writing on globalization has centered on the flow of western media products into global societies (Jenkins, 2004) and Latin America and the Caribbean are no exceptions. This view is shared by Jenkins (2004) who posits that many countries are experiencing cultural imperialism through the globalization of entertainment and media markets. Technological advancement has greatly influenced entertainment as a socio cultural factor; for example advancement in the music industry and exposure to screen-based entertainment.

Party-Based entertainment and drug consumption

As a result of technological advancement in the music industry, there has also been a similar rise in the prevalence of drug use by young adults, concurrent with the dance party or "rave" scene (Measham, Parker & Aldridge, 1998). These parties are associated with current youth culture and the apparent “dance revolution” which reflects an acceptance of drug use by both users and non-users as a part of young people's interpersonal leisure activities (Measham, et.al, 1998). The dance parties are evident on university campuses where students are exposed to the use of drugs.
Screen-Based entertainment and drug consumption

Tremendous percentages of the contents of today's mass media are designed to persuade, which is a concept that can be defined as attempting to change people's attitudes and behaviours through the written or spoken word (Perry, 2002). Viewed in this light, a substantial portion of the electronic media is occupied by carefully and strategically placing their attempts to persuade. According to Padilla-Walker et al. (2010) the leisure activities of persons between the ages of 18 to 25 have dramatically changed during the last 10 to 15 years. For example, videogames and internet use is increasingly dominating the leisure time of this population. A large portion of undergraduate students fall within this age range, and are presumed to be no different.

Every new technological advancement made in the entertainment industry has the potential to provide a broad audience with information, and leisure activities in new and innovative ways (Palmer & Young, 2003). However, although these technological means hold great potential, they can pose vast challenges as well. Ericson (2001) stated that “entertainment as a cultural factor plays a critical role in shaping perceptions about the risks of substance use” (p.1). Based on the findings of, when the internet was used by young adults for chat rooms, shopping and pornography, there was an association with negative outcomes which include more risk behaviours such as drinking and drug use. However the internet can positively impact the behavior of an individual. Padilla-Walker et al. (2010) reported in their study that when the internet is used for schoolwork, it is associated with a plethora of positive outcomes such as less drug use, higher self-perceptions and self-worth, and positive parent-child relationships. This suggests that entertainment might have a moderating effect on peer influence on drug consumption among university students.
**Spirituality and Drug Use**

There is a general belief that the society on the whole accepts the notion that there is a supernatural being that persons look to for spiritual inspiration and guidance, whether continuously or inconsistently. Thus, spirituality or religiosity is the extent to which the individual sees himself as a spiritual or religious person. Spirituality as an agent of socialization impacts the behavior of the individual.

**Spirituality/Religiosity as an Agent of Socialization and drug consumption**

Religion in some form is embedded within the general fabric of most societies and is translated in a more or less direct way through the agents of socialization as a means of sustaining the society and the individuals within it. The important role that religion plays within the daily lives of individuals must not be discounted since there is sufficient evidence to make the case that one’s belief in a higher power plays its part in the continuation of society and social life. The protective effects of religion against alcohol and drugs are supported by empirical evidence (Hawks & Bahr, 1992; Cochran, 1991; Burkett, 1980). These studies suggest that religion and spirituality are negatively related to drug and alcohol abuse. Mainstream religious commitment is also a consistent negative predictor of drug abuse. Not only are persons with a strong religious swaying less likely to initiate drug abuse, but both mainstream and sectarian forms of religion provide effective norms for discouraging and reducing drug and alcohol abuse among their members.

**Limitations of Existing Literature**

Although there are many studies on peer influences on adolescent smoking and other substance use, a limited number of studies have reported prospective findings in which both peer and adolescent were assessed. For example, few such investigations have compared the relative
effects of best friend, close friends, or general peer group. There is also a seeming paucity of research on social influences among older groups and homogenous groups such as university students. Further, though studies have examined the effects of socialization and selection on substance use, many of these have restricted their interest to smoking of tobacco with particular interest on adolescents. Further, it is noted that there is an equal paucity of scientific evidence on peer influence and drug use among Latin American and Caribbean countries. Finally, from the studies reviewed, many appear to have used a measure of substance use that includes tobacco and alcohol use. An expanded focus would be found highly relevant with the inclusion of marijuana, cocaine and amphetamine; also the inclusion of spirituality as a moderator brings additional uniqueness to the study.

From the literature reviewed for this study, it is evident that peers have strong influence on drug consumption. This study would therefore examine the moderating effects of spirituality, family and entertainment on the relationship between peer influence and drug consumption. This would assist with the identification of preventive and treatment programmes.

**TERMS AND DEFINITIONS**

**Drug Use:** The working definition of drug use in this study is as follows: The consumption of psychoactive drugs, and often, even more specifically, to illicit drugs which may or may not have medicinal value (WHO, 2011).

**Peers:** Members of a sub-group that influence each other in their social activities, study habits, dress, sexual behaviour, use or non-use of drugs; are usually friends who share similar attitudes and values (Kirst-Ashman & Zastro, 2010).
**Peer influence:** Peer influence is the extent to which an individual responds to the social pressure or extrinsic motivation exerted by one’s peers to behave in a manner acceptable to them; for example in their social activities, sexual behavior, and use or non-use of drugs.

**Entertainment:** Entertainment refers to any activity or experience designed to delight and enlighten as a result of exposure to information, knowledge and actions of others or of self. It takes into account any kind of activity, whether witnessed only, taken part in, or performed alone (Zillmann & Bryant, 1994, as cited in Bates and Ferri, 2010).

**Screen-Based Entertainment:** Engagement in any activity that involves watching an electronic screen for the purposes of entertainment. It may be interactive or non-interactive.

**Non-interactive screen-based entertainment:** The amusement or enjoyment experienced by an individual as a result of exposure to audio and/or visual information via an electronic screen; without direct involvement with or influence on its source. For example watching movies, pornography and headline news.

**Interactive screen-based entertainment:** The amusement or enjoyment experienced by an individual as a result of his or her active involvement with another source (for example, a person or computer) via an electronic screen, in an experience characterised by varying levels of reciprocal interaction. This may include but is not limited to playing video games, emailing, social networking and shopping online.

**Party-Based Entertainment:** Engagement in any activity which involves attendance at social gathering(s), typically involving the consumption of food, drink, music to entertain.

**Spirituality:** The perception of ones spirituality, that is the extent to which the individual sees him/herself as a spiritual and or religious person – (silent or personal moments of prayer, meditation) (Cline, 2011).
**Family:** Any combination of two or more persons who are bound together over time by ties of mutual consent, birth, adoption or deliberate placement

**Family relations:** The interconnectedness that family members have in their relationships with one another, how they affect each other’s thoughts feeling and actions (Bowen, 1990).

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**RESEARCH QUESTION AND OBJECTIVES**

**Research Question**

In each of the countries participating in the study, what are the moderating effects of family relations, spirituality and entertainment on the relationship between peer influences and drug use among university students?

**Main Objective**

To examine the socio-cultural factors which moderate the relationship between peer influences and drug use among university students.

**Specific Objectives**

1. To investigate the relationship between peer influences and drug use among university students;

2. To examine the moderating effect of entertainment (screen-based entertainment and party-based entertainment) on the relationship between peer influences and drug use among university students;

3. To investigate how family relations moderate the relationship between peer influences and drug use among university students;

4. To study the extent to which spirituality moderates the relationship between peer influences and drug use among university students.
METHODOLOGY

Research Design

This multi-centric study is cross-sectional in design and the survey method will be used to collect data in seven universities from eight countries in Latin America and the Caribbean.

Population and Sample Size

The sample for this research will consist of undergraduate students between the ages of 18 and 24 years, attending two Caribbean and five Latin American universities. As shown in Table 1, a quota sample will be used with a sample size of 2000 representing 250 male and female students selected from each university. Each researcher will select 250 students from the Faculties of Social Sciences and Humanities/Health Sciences.

Variables

The dependent variable of the study is drug use. The licit drugs to be investigated are tobacco and alcohol and the illicit drugs to be investigated are cannabis, cocaine and amphetamines. More specifically drug use will be studied in the following ways: a) licit drug use (past 12 months) b) illicit drug use (past 12 months), licit drug use (past 3 months), and illicit drug use (past 3 months). The independent variable of the study is the level of peer influence. The moderating variables are: quality of family relations, engagement in interactive screen-based entertainment, non-interactive screen-based entertainment, party-based entertainment and level of spirituality. The demographic variables to be investigated are: age, sex, registration status, marital/civil status, faculty, year of study/semester and working status.

Consideration of Statistical Power

The sample of 250 for each country provides power greater than .8 for bi-variate analyses, for example Student t-test of peer influence between drug users and non-users. With N
of 250, we will limit multivariate models (e.g., logistic regression of drug use) with less than 12 predictors to ensure N >20 per predictors. In fact, the study will have sufficient power (> .8) to detect medium to small effect sizes in terms of correlation and regression coefficients. The predictive models are likely to include peer influence, such moderating factors as spirituality, entertainment, and family relations, and interactions between peer influence and the moderating factors as well as the control variables (e.g., age, sex, faculty, working status, etc).

A drawback of a purposive sampling method is that it cannot be used to generalize prevalence estimates to the broader population as it cannot produce a representative sample. However these methods are commonly used in psycho-social, epidemiological and other health-related research (Rothman & Greenland 1998). The findings of this study are intended to make inferences about the sample chosen from each university and not about the general university or wider populations. Therefore the data obtained will be limited in its ability to allow for predictive conclusions about any population beyond than the sample.

Table 1. **Countries, Cities, Code, Universities, Population undergraduate and Sample size, (CICAD-CAMH group VI, 2011-2012)**

<table>
<thead>
<tr>
<th>Country</th>
<th>City/Parish</th>
<th>Code of University</th>
<th>Name of University/Campus</th>
<th>Total Undergraduate Population</th>
<th>Student Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barbados</td>
<td>St. Michael</td>
<td>01</td>
<td>The University of the West Indies, Cave Hill Campus</td>
<td>7,582</td>
<td>250</td>
</tr>
<tr>
<td>Brazil</td>
<td>Florianópolis</td>
<td>02</td>
<td>The Federal University of Santa Catarina, João Ferreira Lima Campus</td>
<td>34,195</td>
<td>250</td>
</tr>
<tr>
<td>Colombia</td>
<td>Bogotá</td>
<td>03</td>
<td>Foundation University of Health Sciences</td>
<td>1,800</td>
<td>250</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>San José</td>
<td>04</td>
<td>University of Costa Rica, Rodrigo Facio Campus</td>
<td>34,661</td>
<td>250</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Portoviejo</td>
<td>05</td>
<td>Technical University of Manabi</td>
<td>18,000</td>
<td>250</td>
</tr>
<tr>
<td>El Salvador</td>
<td>San Salvador</td>
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<td>Evangelical University of El Salvador</td>
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<td>250</td>
</tr>
<tr>
<td>Jamaica</td>
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<td>07</td>
<td>The University of the West Indies, Mona campus</td>
<td>8,600</td>
<td>250</td>
</tr>
<tr>
<td>Guyana</td>
<td>Georgetown</td>
<td>08</td>
<td>University of Guyana</td>
<td>5670</td>
<td>250</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td>97,029</td>
<td>2000</td>
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</table>
Inclusion and Exclusion Criteria

Inclusion Criteria

The inclusion criteria for the selection of potential participants are as follows:

1. The candidates must be undergraduate students, registered in Social Sciences and Humanities/Health Faculties/areas in each participating University.

Exclusion Criteria

The main criteria of exclusion in this research are as follows:

1. Students who are younger than 18 years and older than 24 years will be excluded.

Instrument and Measurement

A self-report questionnaire will be used to collect the data (Appendix B). The English version of the questionnaire was translated into Spanish and Portuguese taking into consideration the cultural meanings of words as well as the grammatical structure of sentences. The questionnaire, in the three languages of the study (English, Spanish and Portuguese) will be piloted among persons within the 18 – 24 year age group and it is expected to take approximately 20 -30 minutes to complete. The questionnaire consists of 6 sections with 86 questions. Areas include questions on socio-demographic information (10 questions), peer influence (6), family relations (25) entertainment (9) spirituality (26) and drug consumption (10).

Peer Influence Scale (PIS)

The Peer Influence scale used in this study was modeled after the scale developed by Mayberry, Espelage and Koenig (2009). The items of the scale ask how much participants agree or disagree with statements about their friends’ influence. Response options range from 0 (Strongly agree) through 3 (Strongly disagree). The five items of scale will be reversed scored,
such that higher scores will indicate positive peer influence. These items are: B2, B3, B4, B5 and B6.

The Index of Family Relations (IFR)

The Index of Family Relations (IFR) was developed by Hudson (1992). The IFR is a 25 items scale designed to measure the extent, severity, or magnitude of problems that family members have in their relationships with one another. The IFR has a mean alpha of .95 indicating excellent internal consistency. The IFR includes 25 items, each one of which responded to on a 5-point scale ranging from “rarely or none of the time: to most or all of the time.”

Approximately half of the items are worded in a positive direction and half in a negative direction in order to control response set. Items written in a positive direction must first be reversed-scored. Items C1, C2, C4, C5, C8, C14, C15, C17, C18, C20, C21, and C23 are reverse-scored while the other items C3, C6, C7, C9, C10, C11, C12, C13, C16, C19, C22, C24 and C25 are not reverse-scored. After reverse-scoring, the total score is computed by summing item scores and subtracting 25. If items have been omitted, the score is calculated as $S = (Y - N) (100) / [(N) (4)]$, where N is the number of items properly completed by the respondent.

The Spiritual Involvement and Beliefs Scale (SIBS),

The Spiritual Involvement and Beliefs Scale (SIBS) was developed by Hatch, Burg, Naberhaus and Hellmich (1998). The authors gave their authorization to use the scale via email on Thursday 25th August, 2011. The Spanish and Portuguese version of the scale will also be used in this multi-centric study. Compared with other instruments that assess spirituality, the SIBS has several theoretical advantages, including broader scope, use of terms that avoid cultural-religious bias, and assessment of both beliefs and actions. The instrument is a
questionnaire containing 26 items in a modified Likert-type format. Following careful pretesting, the instrument was administered to 50 family practice patients and 33 family practice educators. The validity and reliability of the instrument were then evaluated. By several measures, instrument reliability and validity are very good, with high internal consistency (Cronbach's alpha = .92); strong test-retest reliability (r = .92); a clear four-factor structure; and a high correlation (r = .80) with another established measure of spirituality, the Spiritual Well-Being Scale.

The SIBS scale is a validated instrument that has 26 items/scores to measure the extent to which an individual is spiritual. Those items in the scale that are positively worded, meaning, agreement to being more spiritual, include items E2, E4, E6, E7, E8, E10, E11, E12, E14, E17 and E19 (as shown on questionnaire, Appendix B). With these items scoring values will be assigned as follows: Strongly agree = 5; Agree = 4; Neutral = 3; Disagree = 2; Strongly disagree = 1. The scoring values for Items E20, E21 and E23 will be assigned as follows: Always = 5, Usually = 4, Sometimes = 3, Rarely = 2 and Never = 1.

For negatively worded items, meaning, where agreement would seem less spiritual, include items E1, E3, E5, E9, E13, E15, E16 and E18 (as shown in questionnaire, Appendix B). With these items scoring values will be assigned as follows: Strongly agree = 1; Agree = 2; Neutral = 3; Disagree = 4; Strongly disagree = 5. The scoring values for Item E22 will be assigned as follows: Always = 1, Usually = 2, Sometimes = 3, Rarely = 4 and Never = 5.

For items E24, E25 and E26, scoring values will be assigned as follows: Highest frequency category (10 or more times) = 5; Next highest category (7 – 9 times) = 4; Middle frequency (4 – 6 times) = 3; Next to lowest frequency (1 – 3 times) = 2 and Lowest frequency (0 times) = 1, Therefore the overall measure of spirituality will be arrived at by averaging the total
response scores across the 26 items to arrive at a mean. The variable spirituality will be measured by assessing an individual’s level of spirituality as per responses to the above items.

**Measure of Involvement in Party-Based Entertainment**

To assess the frequency of involvement in party-based entertainment, participants will be asked an open-ended question, (see item D1 of questionnaire) “how many parties have you attended in the last three months where alcohol, tobacco, or other substances such as marijuana, cocaine and amphetamines may have been present?” Party-Based Entertainment (PBE) will be scored as a continuous variable with a ratio level of measurement. The higher the number given by the respondent, the greater number of parties attended.

**Measure of Involvement in Screen-Based Entertainment**

A self-developed summated rating scale will be used to measure the two constructs of Screen-based entertainment. This scale was modelled after the items developed by Padilla-Walker, Nelson, Carroll, and Jensen, (2010) to measure the construct of internet use. However in the present study an eight-item scale was designed to measure levels of engagement in two forms of screen-based entertainment (interactive screen-based entertainment and non-interactive screen based entertainment). Those items in the scale which correspond to interactive screen-based entertainment (ISBE) include items D2, D4, D6 and D8 (as shown in questionnaire, Appendix B). With these items scoring values will be assigned as follows: Never = 1, infrequently = 2, Sometimes = 3, Often = 4 and Very often = 5. A similar assignment of scores will be used for those items which correspond to Non-interactive Entertainment (NISBE). These include items D3, D5, D7 and D9. ISBE will be scored by summing and averaging the responses to the relevant items (D2, D4, D6 and D8). NISBE will also be scored by summing and averaging the
responses to the relevant items (D3, D5, D7 and D9). The higher the score attained the greater the involvement in ISBE and NISBE.

The Alcohol, Smoking and Substance Involvement Screen Test (ASSIST)

A modification of question one and two of the ASSIST will be used in the study. These questions were developed by the World Health Organization, (2010). The questions relating only to alcohol, tobacco, cocaine, cannabis and amphetamines were selected. Questions F1 to F5 combine to form a 5 item measure where the respondent is asked about his use of five drugs over the past 12 months. The respondent is expected to answer either “yes” or “no” to his use of drugs over this time period. For these items, scoring values will be assigned as follows: No = 0, Yes = 1. Items F1 & F2 will be used as a measure of licit drug use (past 12 months), while items F3, F4, and F5 will be used as a measure of illicit drug use (past 12 months).

The two items for licit drug use will be summed and a score of 0 will represent non-use (of licit drugs), while a score from 1 – 2 will represent use (of licit drugs). The three items for illicit drug use will also be summed and a score of 0 will represent non-use (of illicit drugs), while a score from 1 – 3 will represent use (of illicit drugs).

Questions F6 to F10 combine to form a five item measure where the respondent is asked about his use of five drugs over the past 3 months. The respondent is expected to respond along a 5 point likert scale ranging from 0 (never) to 4 (daily or almost daily). Items F6 & F7 will be used as a measure of licit drug use (past 3 months), while items F8, F9, and F10 will be used as a measure of illicit drug use (past 3 months).

With these items scoring values will be assigned as follows: Never = 0, Once or twice =1, Monthly = 2, Weekly = 3 and Daily or Almost Daily = 4. The two items for licit drug use will be
summed and a score of 0 will represent non-use (of licit drugs), while a score from 1 – 8 will represent use (of licit drugs). The three items for illicit drug use will also be summed and a score of 0 will represent non-use (of illicit drugs), while a score from 1 – 12 will represent use (of illicit drugs).

**Data Collection Procedure**

**Pretesting of the Instrument**

A pilot will be conducted (5-10 students per university) to test the comprehension of the questionnaire, to adapt phrases that are not very clear and ensure that students will understand the questions during the data collection.

**Request for permission from university authorities**

Each researcher will present the proposal to universities authorities and will ask for permission to conduct the study at their respective university. A formal letter will be written to the relevant authorities (See Appendix I).

**Recruitment**

After relevant permission is obtained from the Administration of the University (for example: from the Campus Registrar, Head of the Faculties etc.) the student recruitment process is as follows:

1. Meetings will be held with the student leaders on campus (for example: presidents, vice-presidents, monitors etc.) to seek their corporation and assistance to disseminate recruitment information.

2. This will include the mounting of posters around campus (see Appendix F), the posting of the recruitment advertisement (see Appendix G) on the campus intranet, notice boards and in the
university newspaper etc. Hand Flyers (see Appendix H) will also be strategically distributed by the P.I, R.A’s and volunteers.

3. Additional information can be obtained from the faculty/research offices as well as the P.I via email. This email address can be found on the recruitment poster, advertisement and hand flyer.

4. To participate in the study, students will be directed to a pre-determined location on campus (for example: a room, lecture hall etc.). At this location the room will be appropriately furnished for the completion of the questionnaire by the student after orientation in keeping with the informed consent form.

**Data collection**

The data will be collected through the use of a self-report questionnaire in each university from November 2011 to April 2012. Data will be collected in and/or outside of classroom settings, on the physical premises of the participating universities.

- The investigator will explain the research and answer any questions the students may have, about the questionnaire and consent form;

- After that, the questionnaire will be given to students who voluntarily agree to participate in the study.

- When the questionnaire will be completed, subjects will put their consent and questionnaire forms in two separate boxes provided for this purposes. Research participants will be advised that they may place their forms in each box as soon as they are finished.
Data Entry and Analysis:

The data will be entered in a database using SPSS (Statistical Package for the Social Sciences) in each university and for quality control 10% of it will be randomly verified against the completed questionnaires. The data will be analyzed using frequencies, percentages, means, cross tabulations, t-tests, correlations and logistic regressions.

ETHICAL CONSIDERATIONS

Prior to conducting this study ethical approval will be obtained from the Research Ethics Board (REB) of the Centre for Addiction and Mental Health (CAMH). Ethical approval will also be obtained from the ethical bodies from each participating university. These bodies will retain ethical oversight throughout the entire period of the study.

The Respondent

For each respondent, participation in this study will be completely confidential, voluntary and no personal identifying information will be affixed to the questionnaire completed. There are no inducements or direct benefits associated with their participation and little to no risks involved (see Risks, Appendix A).

The participants will be assured that their relationship with their respective universities or professors will not be compromised in any way as a result of their involvement or refusal to participate. Respondents are under no obligation to be involved and will be assured that the opportunity to exit the study at any time is open to them.

The Informed Consent Form

Upon agreeing to participate in the study, each respondent will be given an Informed Consent Form and the necessary contact information to ensure that any question concerning the
form and overall study can be answered. The form will include contact information for the primary investigator; a university affiliated member of staff, the chair for the REB at each participating university. All students will be given information for counseling services in the event that a participant becomes psychologically distressed during or after completing the questionnaire. Time will be set aside to answer any questions may have concerning the research. Consent forms will be stored separately from the questionnaires in a locked cabinet in the P.I’s office.

**The Questionnaire**

Each questionnaire will be numbered sequentially and not linked to the consent form. The questionnaires will be administered to undergraduate students from each university. If a respondent has any difficulty reading or understanding any item or items on the questionnaire, it is the duty of the primary investigator (P.I) involved or research assistant (R.A), where applicable, to provide needed clarification. Completed questionnaires will be collected by the P.I or R.A and placed in envelopes. Questionnaires will be stored according to each university’s policy and procedures. For example, these envelopes will then be carried to the office of the P.I where they will be stored in locked cabinets. All electronic data associated with the research will be stored in password protected files that are accessible to persons on a need to know basis (for example, the P.I and R.A’s). Electronic backup files will also be made during the research process and stored along with all other files in the office of the P.I. The minimum length of time for the storage of all data files following the completion of the study will be determined by the ethical guidelines of each university involved. After this time, all files will be appropriately destroyed by shredding and permanent electronic deletion.
The Primary Investigator(s) from each Country and Research Assistants

Training and supervision will be provided for R.A’s by the P.I at each participating university. These research assistants will be asked to complete and sign a memorandum of understanding (see Appendix E) outlining the responsibilities involved and committing them to the data collection process. These responsibilities include agreeing to the basic principles that govern the research process, such as to do no harm, maintaining respect for each participant and to ensure that the confidentiality of each respondent is maintained. They will also be required to meet on a weekly basis with the primary investigator. These meetings will be geared towards monitoring and allowing for feedback about the progress of the research as well as to manage the data collected.

KNOWLEDGE TRANSFER & KNOWLEDGE EXCHANGE PLAN

The knowledge transfer and exchange framework proposed by Zarinpoush, Von Sychoski and Sperling (2007) will be used in this study. The five main steps used to implement this KT & KE plan will involve, targeting an audience(s), creating effective messages, identifying key messengers, determining the best methods to disseminate the information and lastly to make educated predictions about the expected effects.

Audience

The audience will be comprised of the Inter-American Drug Abuse Control Commission (CICAD), The Organization of American States (OAS), the Pan-American Health Organization (PAHO) and the Caribbean Community (CARICOM). At the national level, the Ministries of Health (MOH) in each country, the National Drug Councils, the Universities and other relevant Non-Governmental Organizations. University students will also be among the audiences
targeted. By focusing on students it would be easier to address the specific problem of peer influences on drug consumption among this population. It is hoped that they will be able to make practical use of the research findings, either by implementing the findings in their personal lives or influence others in their social spheres to act on the recommendations of the research (Canadian Institute for Health Information, 2001).

**Information/Message**

The findings of the research will be presented based on five guidelines. The message(s) will be: clear (i.e. easy to understand) concise (easy to read), consistent (related to and in keeping with other existing information), compelling (commands attentions) and continuous (has follow up to ensure that it is not forgotten) (Abernathy, Coutts, Royce, Bartram, Kramer, Chapesike, Gold, and Marsh, 2001)

**Messenger(s)**

The primary messengers will be the investigators associated with the project in each country. However, additional messengers (individuals, groups, organizations etc.) will be carefully selected based on their credibility and expertise in this area as well as the extent to which they possess key behavioural competencies, such as listening, patience, humility, and flexibility (The World Bank, 2005).

**Method**

At the beginning of the research key stakeholders on campus will be invited to sit on an advisory committee that will guide the process of information dissemination. The advisory team will be comprised of a representative of the campus registrar and or student services, a representative of the student body and other on-campus student organisations as well as the P.I.
The media channels decided upon will be dependent on the outcomes of the meetings held with the advisory team. Town hall style meetings will be held at a suitable site on campus. The P.I’s from each country will approach these meetings with suggestions about possible methods to disseminate the information, such as: newspaper articles, magazine columns, television, radio broadcasts, posters and brochures. Members of the advisory team will also be given the opportunity to recommend additional methods of information dissemination.

**Monitoring and Evaluation (M&E)**

To ensure the continuity and effectiveness of KT&KE, this process must have inbuilt checks and balances to help determine whether the targeted outcomes are being achieved. By monitoring these checks and balance mechanisms the messenger will be informed about the extent to which the message was captured, shaped and used by the audience. At prescribed stages relevant evaluation activities will be used. For example, feedback meetings may be held between representatives of the identified messengers and members of the targeted audiences. The effectiveness of the KT and KE Plan will be judged based on the 5 C’s identified previously.

**PROJECT TIMELINE**

The project will take one year to complete (July 2011 to July 2012). During the month of August 2011, ethical approval will be obtained from the CAMH REB. Each principal researcher on returning to their respective country, will submit the proposal to ethics committee of the university to which they are affiliated (September to mid-November 2011). After approval is obtained data collection, management, cleaning and analysis will take place from November 2011 to May 2012. Country reports will be written and translated between May and July 2012.
and the implementation of the knowledge and exchange plan will be completed between July and August 2012. See Appendix C for the Project Gantt Chart and additional information.
REFERENCES


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and termination: The role of similarity. Journal of Social & Personal Relationships, 
15(5), 703–710.


**APPENDIX-A**

**Informed Consent Form**

**Name of Study:** The Role of Family Relations, Spirituality and Entertainment in Moderating the Relationship between Peer Influence and Drug Use among University Students.

**Sponsors of the Study:** Inter-American Commission for the Control of Drug Abuse/ The Organization of American States (CICAD / OAS) and Centre for Addiction and Mental Health (CAMH).

**CAMH Principal Investigator:** Sam Noh, PhD

CAMH Co-Investigators: Bruna Brands, PhD; Denise Gastaldo, PhD; Hayley Hamilton, PhD

**The study includes the following Co-Principal Investigators at affiliated universities:**

<table>
<thead>
<tr>
<th>Name of Investigator</th>
<th>Affiliated University</th>
<th>Country</th>
</tr>
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<tbody>
<tr>
<td>Mia Jules</td>
<td>The University of the West Indies, Cave Hill Campus</td>
<td>Barbados</td>
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<tr>
<td>Maria Terezinha Zeferino</td>
<td>The Federal University of Santa Catarina, João Ferreira Lima Campus</td>
<td>Brazil</td>
</tr>
<tr>
<td>Rolando Salazar</td>
<td>Foundation University of Health Sciences</td>
<td>Colombia</td>
</tr>
<tr>
<td>Jaime Caravaca</td>
<td>University of Costa Rica, Rodrigo Facio Campus</td>
<td>Costa Rica</td>
</tr>
<tr>
<td>Magaly Scott</td>
<td>Technical University of Manabí</td>
<td>Ecuador</td>
</tr>
<tr>
<td>Aydee Rivera</td>
<td>Evangelical University of El Salvador</td>
<td>El Salvador</td>
</tr>
<tr>
<td>Andrew Hicks</td>
<td>University of Guyana</td>
<td>Guyana</td>
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<tr>
<td>Bridget Ogowewo</td>
<td>University of Guyana</td>
<td>Guyana</td>
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<tr>
<td>Howard Gough</td>
<td>The University of the West Indies, Mona Campus</td>
<td>Jamaica</td>
</tr>
<tr>
<td>Rashalee Mitchell</td>
<td>The University of the West Indies, Mona Campus</td>
<td>Jamaica</td>
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**Purpose:** The purpose of this research is to collect information on the effect that a student’s family relations, spirituality and entertainment activities have on the relationship between student peer relations and student drug consumption from four Latin American universities and two Caribbean universities in seven countries. The collected data will be combined with the data from the other participating countries. We expect that approximately

**Participant Initials: ___________**
2,000 students will participate in this study. We hope that this study will help to generate knowledge and information that will facilitate a comprehensive understanding of the underlying factors associated with drug consumption and contribute to the prevention of drug use in this population.

**Procedure:** As a participant in this study you will be required to fill out a questionnaire. The questionnaire has a total of 86 questions and will take approximately 20-30 minutes to complete. Participants in this study will be asked to provide information about their drug use and about their family, spiritual and leisurely experiences. All responses will be kept **CONFIDENTIAL** and participants must not put their names on the questionnaire. Please answer all questions to the best of your knowledge. However please be advised that you have the right to refuse to answer any question you do not wish to answer.

**Eligibility:** To participate in this study you must be a registered undergraduate student at one of the participating Universities and between the ages of 18 – 24. Participants must also indicate their voluntary agreement to be a part of this research by signing this consent form.

**Confidentiality:** Please note that your identity will be kept confidential to the full extent provided by law. You are not required to give any information that will make it possible for someone to identify you. In addition, only the research team will have access to the information you provide. Informed consent forms and questionnaires will be collected and stored separately to ensure that personal information (names) given on the consent form cannot be linked to the questionnaire. Questionnaires will be kept in locked cabinets accessible to the research team only.

The electronic version of the information collected will also be protected through the use of password-protected files to prevent unauthorized access to this information. It will not be possible to identify you or your specific responses, and it will be the overall or aggregated results that will be used for scientific publications and events – no individual responses will be reported. However, as part of the ongoing review of research, the study records can be accessed

**Participant Initials:** _________
by the Research Ethics Committee in Canada (CAMH) and the Ethics Committee of the University.

**Risks:** Although we do not anticipate any significant risks associated with your participation in this study, there is the possibility that you may experience some emotional discomfort related to some questions on this questionnaire. It is for this reason that you will also be provided with a brochure that contains information for counseling services, if you experience such feelings or think that you need help.

**Benefits:** There are no direct benefits to you for choosing to be a part of this research. However by participating, you will contribute to the development of knowledge on the relationship that may exist between drug use and the influence of peers. This knowledge may be useful in the development of support programs for individuals who demonstrate substance use problems.

**Voluntary Participation:** Your participation in this survey is completely voluntary. You may choose to withdraw from this study at any time. There will be no negative consequences if you decide not to participate or to withdraw after having started. In addition, the researchers responsible for this study, may also, at their discretion, end your participation at any time.

**Additional Information:** If you have any questions about the study, which has not been answered in this consent form, please ask them at this time. If you have any questions in the future, please feel free to contact the Principal investigator (name here) __________ at (name of university here) __________, at telephone number __________. You also can contact someone who is not directly associated with the study, (name of person and position), at this University if you have any questions about your rights as a participant in this study.

Participants in this research may also contact (Name of Chair of the Research Ethics Board here) __________ of the (name of university here) __________ to discuss their rights. (Name of Chair of the Research Ethics Board here) __________ can be contacted at telephone __________.

The findings of the study will be made available to you.

**Participant Initials:** __________
AGREEMENT TO PARTICIPATE

I, ______________________________, have read this Informed Consent Form for the study entitled “The role of family relations, spirituality and entertainment in moderating the relationship between peer influence and drug use”. I was given time to ask questions related to my involvement and my questions have been answered to my satisfaction. I acknowledge that I have no personal gain by participating in this study. I also acknowledge that my participation in this survey is completely voluntary and I reserve the right to refuse to participate or to withdraw from this study at any time, with no consequences being associated with this.

I may communicate with ____________(Name of Chair of the Research Ethics Board of the university here) to discuss my rights. He/she may be contacted by phone at ______________

I (Signature of respondent): ___________________________     Date: ___________
agree to participate.

Research Team Member:

(Signature of P.I./R.A./Volunteer): ___________________________     Date: ___________

For participants who choose to take a copy of the consent form.

I have received a copy of this form to keep for myself and have taken responsibility for its safety.

(Signature of respondent): ___________________________     Date: ___________
APPENDIX -B

QUESTIONNAIRECODE: _______________________

DATE:                               ______/ ______/ ______
                                            day      month        year

Questionnaire

Socio-cultural Factors and Drug Consumption
CICAD CAMH 2011-2012

Please do not put your name anywhere on this questionnaire.
In this questionnaire we will be asking you about common problems that may relate to a
student’s health. Some of these questions may be sensitive, but we appreciate it if you would
answer them to the best of your ability. All responses will be kept confidential. Thank you.

A – Demographic Information

Please answer the following questions.

A1. How old are you? (please tick the appropriate box below)

18 [ ] 19 [ ] 20 [ ] 21 [ ] 22 [ ] 23 [ ] 24 [ ]

A2. What is your sex? Male (0) [ ] Female (1) [ ]

Guide for question #3
A full-time student is: a student who is registered for all courses in each semester of their programme.
A part-time student is: a student who is not registered for all courses in each semester of their programme.

A3. Are you a full-time or part-time student? Full-time(1) [ ] Part-time(0) [ ]

A4. What is your marital/civil status?

Single/ Never Married (1) [ ] Married (2) [ ] Common-law-union (3) [ ]
In a relationship (4) [ ] Divorced (5) [ ] Widowed (6) [ ]

A5i. Where do you live? (1) On a university residence [ ] (4) Off campus housing with roommates [ ]
(2) At home with family …… [ ] (5) Off campus housing alone ………… [ ]
(3) With other relatives …… [ ] A5ii Other ___________________ (please specify)

A6i. Do you have children? Yes (1) [ ] No (0) [ ] A6ii If yes, How many? ___________ (kids)
A7. To which faculty do you belong? (0) Social Sciences (1) Health Sciences/ Humanities

A8. What is your year of study? (Please tick the appropriate box below)

1st year (1) 2nd year (2) 3rd year (3) 4th year (4) 5th year (5) 6th year (6)

A9. Which semester are you in? ________________

A10. i) Do you work for pay? Yes (1) No (0)

ii) If yes, how many hours a week do you work for pay? ________________ (hours)

iii) If yes, what kind of work do you do? ________________

B - Peer Influences

B1. How many of your friends smoke, drink alcohol or use other forms of drugs? ……

(0) None (1) One (2) Few (3) Some (4) Most

How much do you agree or disagree with the following statements about your friends? Answer each item as carefully and as accurately as you can by circling the number which best represents your response.

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<td>B3. Most of my friends do not have protected sexual intercourse.</td>
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<tr>
<td>B4. Most of my friends do not drive after drinking or doing drugs.</td>
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<tr>
<td>B5. Most of my friends do not smoke cigarettes or chew tobacco.</td>
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<td></td>
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<tr>
<td>B6. Most of my friends do not drink 5 or more drinks in one occasion</td>
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### C - Family

The questions in this section are designed to measure the way you feel about your family as a whole. It is not a test, so there is no right or wrong answer. Answer each item as carefully and as accurately as you can by circling the number which best represents your response.

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<th>4</th>
<th>5</th>
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<th>7</th>
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<tbody>
<tr>
<td></td>
<td>None of the Time</td>
<td>Very rarely</td>
<td>A little of the time</td>
<td>Some of the time</td>
<td>A good part of the time</td>
<td>Most of the time</td>
<td>All of the time</td>
</tr>
<tr>
<td>C1</td>
<td>The members of my family rarely care about each other</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C2</td>
<td>I think my family is terrific</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C3</td>
<td>My family gets on my nerves</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C4</td>
<td>I really enjoy my family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C5</td>
<td>I can really depend on my family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C6</td>
<td>I really do not care to be around my family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C7</td>
<td>I wish I was not part of this family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C8</td>
<td>I get along well with my family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C9</td>
<td>Members of my family argue too much</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C10</td>
<td>There is no sense of closeness in my family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C11</td>
<td>I feel like a stranger in my family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C12</td>
<td>My family does not understand me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C13</td>
<td>There is too much hatred in my family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C14</td>
<td>Members of my family are really good to one another</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C15</td>
<td>My family is well respected by those who know us</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C16</td>
<td>There seems to be a lot of friction in my family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C17</td>
<td>There is a lot of love in my family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C18</td>
<td>Members of my family get along with each other</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C19</td>
<td>Life in my family is generally unpleasant</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
C20 My family is a great joy to me 1 2 3 4 5 6 7
C21 I feel proud of my family 1 2 3 4 5 6 7
C22 Other families seem to get along better than ours 1 2 3 4 5 6 7
C23 My family is a real source of comfort to me 1 2 3 4 5 6 7
C24 I feel left out of my family 1 2 3 4 5 6 7
C25 My family is an unhappy one 1 2 3 4 5 6 7


D- Entertainment

The questions in this section are designed to measure how frequently you engage in different kinds of leisurely activities. Please write or circle the number which best represents your response.

D1. How many parties have you attended in the last three months where alcohol, tobacco, or mood altering substances (such as marijuana, cocaine, amphetamines etc.) may have been present? _____ (parties)

To what extent do you engage in the following screen-based activities each week? (Circle one of the numbers to the right of each item).

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Infrequently</td>
<td>Sometimes</td>
<td>Often</td>
<td>Very often</td>
</tr>
</tbody>
</table>

D2 Playing video games and/or online games 1 2 3 4 5
D3 Watching headline news (national events, sports, politics, international affairs) 1 2 3 4 5
D4 E-mailing 1 2 3 4 5
D5 Watching pornography (cinema, television, online) 1 2 3 4 5
D6 Social Networking (Facebook, Hotmail, Yahoo and Black Berry messenger etc.) 1 2 3 4 5
D7 Watching movies and/or short videos (cinema, television, online e.g. YouTube) 1 2 3 4 5
D8 Shopping online 1 2 3 4 5
D9 Watching music videos (television, online) 1 2 3 4 5
### E- Spirituality

The questions in this section are designed to measure your level of spirituality. Please circle the number which best represents your response.

<table>
<thead>
<tr>
<th></th>
<th>1: Strongly Agree</th>
<th>2: Agree</th>
<th>3: Neutral</th>
<th>4: Disagree</th>
<th>5: Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>In the future, science will be able to explain everything</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E2</td>
<td>I can find meaning in times of hardship.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E3</td>
<td>A person can be fulfilled without pursuing an active spiritual life</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E4</td>
<td>I am thankful for all that has happened to me</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E5</td>
<td>Spiritual activities have not helped me become closer to other people</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E6</td>
<td>Some experiences can be understood only through one's spiritual beliefs</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E7</td>
<td>A spiritual force influences the events in my life</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E8</td>
<td>My life has a purpose</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E9</td>
<td>Prayers do not really change what happens</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E10</td>
<td>Participating in spiritual activities helps me forgive other people</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E11</td>
<td>My spiritual beliefs continue to evolve</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E12</td>
<td>I believe there is a power greater than myself</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E13</td>
<td>I probably will not reexamine my spiritual beliefs</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E14</td>
<td>My spiritual life fulfills me in ways that material possessions do not</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E15</td>
<td>Spiritual activities have not helped me develop my identity</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E16</td>
<td>Meditation does not help me feel more in touch with my inner spirit</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E17</td>
<td>I have a personal relationship with a power greater than myself</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E18</td>
<td>I have felt pressured to accept spiritual beliefs that I do not agree with</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E19</td>
<td>Spiritual activities help me draw closer to a power greater than myself</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Always</td>
<td>Usually</td>
<td>Sometimes</td>
<td>Rarely</td>
<td>Never</td>
<td></td>
</tr>
</tbody>
</table>

E20. When I wrong someone, I make an effort to apologize
1 2 3 4 5

E21. When I am ashamed of something I have done, I tell
1 2 3 4 5

E22. I solve my problems without using spiritual resources
1 2 3 4 5

E23. I examine my actions to see if they reflect my values
1 2 3 4 5

<table>
<thead>
<tr>
<th>E24.</th>
<th>During the last WEEK, I prayed. (check one)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 or more times (1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E25.</th>
<th>During the last WEEK, I meditated. (check one)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 or more times (1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E26.</th>
<th>Last MONTH, I participated in spiritual activities with at least one other person... (check one)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 or more times (1)</td>
</tr>
</tbody>
</table>

© Hatch, Burg, Naberhaus and Hellmich (1998)

F- Drug Consumption

The following questions ask about your experience of using alcohol, tobacco products and other mood altering substances in the past 3 months and 12 months. Please be assured that information given will be treated as strictly confidential. Please do not circle a response if the substance was prescribed by your doctor.

In the past 12 months, which of the following substances have you used?

| F1 | Tobacco products (cigarettes, chewing tobacco, cigars etc.) | NO (0) | YES (1) |
| F2 | Alcoholic beverages (beer, wine, spirits, etc.) | NO (0) | YES (1) |
| F3 | Cannabis (marijuana, pot, grass, hash, etc.) | NO (0) | YES (1) |
| F4 | Cocaine (coke, crack, etc.) | NO (0) | YES (1) |
| F5 | Amphetamine – type stimulants (speed and ecstasy ONLY) | NO (0) | YES (1) |
In the past three months, how often have you used the following substances?

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Once or twice</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or Almost Daily</td>
</tr>
<tr>
<td>F6</td>
<td>Tobacco products (cigarettes, chewing tobacco, cigars etc.)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>F7</td>
<td>Alcoholic beverages (beer, wine, spirits, etc.)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>F8</td>
<td>Cannabis (marijuana, pot, grass, hash, etc.)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>F9</td>
<td>Cocaine (coke, crack, etc.)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>F10</td>
<td>Amphetamine – type stimulants (speed and ecstasy ONLY)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>


Thank you for your cooperation
### Activity Key:

<table>
<thead>
<tr>
<th>#1</th>
<th>Proposal development (objectives, problem, design, variables, sampling method, instrument construction, data collection and ethics manual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>#2</td>
<td>Presentation of Proposal to CAMH ethics committee</td>
</tr>
<tr>
<td>#3</td>
<td>Project documentation by each group member</td>
</tr>
<tr>
<td>#4</td>
<td>Presentation of research proposal to university authorities and National Drug Councils / Commissions</td>
</tr>
<tr>
<td>#5</td>
<td>Begin to identify and have discussions with stakeholders who would be interested and “buy into” the findings of the study</td>
</tr>
<tr>
<td>#6</td>
<td>Proposal submission to each university ethics committee</td>
</tr>
<tr>
<td>#7</td>
<td>Coordinator monthly report</td>
</tr>
<tr>
<td>#8</td>
<td>Data collection plan (Selection, training research assistants, meeting with faculty heads, obtaining faculty access, deciding meeting schedules with assistants)</td>
</tr>
<tr>
<td>#9</td>
<td>Data Collection</td>
</tr>
<tr>
<td>#10</td>
<td>Data Entry and Data Cleaning</td>
</tr>
<tr>
<td>#11</td>
<td>Managing data files at one university site</td>
</tr>
<tr>
<td>#12</td>
<td>Data Analysis</td>
</tr>
<tr>
<td>#13</td>
<td>Writing of reports and translation for CICAD &amp; CAMH</td>
</tr>
<tr>
<td>#14</td>
<td>Implementation of Knowledge Transfer and Knowledge exchange plan</td>
</tr>
<tr>
<td>#15</td>
<td>Writing of manuscripts (reports, recommendations, presentations)</td>
</tr>
<tr>
<td>#16</td>
<td>Publication in Journals</td>
</tr>
</tbody>
</table>
APPENDIX – D
Brochure for Counselling Services

Counseling Services

This brochure is intended to provide you with contact information about counseling services in the event that you experience discomfort or emotional distress related to some questions on questionnaire.

If you experience such feelings or feel that you need help please contact the following:

INSERT COUNSELING SERVICE CONTACT INFORMATION HERE

> Name / Names of counselor(s)
> Telephone numbers
> Address (for example: University health Clinic)

For any other questions please contact:

NAME of Principal Researcher at university, & TELEPHONE NUMBER

NAME of Chair of the Research Ethics Board of the Centre for Addiction and Mental Health in Toronto, Canada, & TELEPHONE NUMBER

Thank you for participating in the study entitled
The Role of Family Relations, Spirituality and Entertainment in Moderating the Relationship between Peer Influence and Drug Use among University Students

2011 – 2012
MEMORANDUM OF UNDERSTANDING (MOU)

This MOU is between the Principal Investigator _____________ [insert name] herein after, the P.I and the Research Assistant ____________ [insert name] herein after, the R.A.

The R.A by signing this MOU agrees to the following codes of conduct geared at protecting the respondents as well as maintaining the integrity of the research process:

1. To do no harm to the respondent or the research process
2. To respect the rights of each participant
3. To ensure that the confidentiality of each respondent is maintained.
4. To meet on a weekly basis with the primary investigator for the purposes of ongoing monitoring of the research process.
5. To make timely and appropriate reports to the P.I regarding any occurrence warranting the P.I’s attention as it relates to respondents or to the research process.

The P.I by signing this MOU agrees to the following

1. Recruitment and training of R.A’s
2. Ensuring that the ethical and procedural guidelines of the research process are followed
3. Provide supervision for R.A’s
4. Meet on a weekly basis with the R.A for the purposes of ongoing monitoring of the research process.

P.I’s Signature ________________________  R.A’s Signature ________________________

Date: _______________________________  Date: _______________________________
Study participants needed!
Would you like to participate in a study about drug use in our University??

Would you like to express yourself and what you think about drug use and peer influence??
This is a great opportunity to participate in a research study that takes your views and experiences about drugs at our University seriously!!!

You can participate only if:
You are a registered undergraduate student in the Faculties of Social Sciences, Health Sciences or Humanities in the university &
Between the ages of 18 years and 24 years old!

For more information, visit the university’s intranet!!!
Or Contact: [INSERT EMAIL ADDRESS OF P.I]

Never be afraid to say what you think!!
APPENDIX – G

RECRUITMENT ADVERTISEMENT

Study participants needed!
Would you like to express yourself and what you think about drug use and peer influence??

This is a great opportunity to participate in a research study that takes your views and experiences about drugs at our University seriously!!

You can participate only if:

You are a registered undergraduate student in the Faculties of Social Sciences, Health Sciences or Humanities in the university
&
Between the ages of 18 years and 24 years old!

For more information, visit the university’s intranet!!!
Or Contact: [INSERT EMAIL ADDRESS OF P.I]

Come out and speak your Mind!!
APPENDIX – H
RECRUITMENT HAND FLYER

Study participants needed!
Would you like to participate in a study about drugs in our University??

Would you like to express yourself and what you think about drugs and peers??
This is a great opportunity to participate in a research study evaluating a student’s thoughts
and experiences about drugs at our University.

You can participate only if:
You are a registered undergraduate student in the Faculties of Social Sciences, Health
Sciences or Humanities in the university
&
Between the ages of 18 years and 24 years old!

For more information, visit the university’s intranet!!
Or Contact: [INSERT EMAIL ADDRESS OF P.I. HERE]

Never be afraid to say what you think!!

WE NEED YOU!
APPENDIX – I
LETTER TO UNIVERSITY ADMINISTRATION

Date:
First name and Last Name:
Job Title:
University:
Address:
City:
Rector
Academic Vice President
Dean
(It depends on each university)
Dear “Title” “Last Name”

PERMISSION TO CONDUCT A RESEARCH STUDY
I ______________ write to request permission to conduct a research study in your university. As one of the participants of the International Research Capacity Building Programme for Health Related Professionals to study the drug phenomenon in Latin America and the Caribbean, I am expected to carry out a multicentric study in seven universities from eight countries in the Latin America and the Caribbean. The participating universities are the University of the West Indies Cave Hill Campus (Barbados), the Federal University of Santa Catarina, João Ferreira Lima Campus (Brazil), Foundation University of Health Sciences (Colombia), University of Costa Rica, Rodrigo Facio Campus (Costa Rica), Technical University of Manabí (Ecuador), Evangelical University of El Salvador (El Salvador), University of Guyana (Guyana), The University of the West Indies, Mona Campus (Jamaica). This programme is organized by the Inter – American Drug Abuse Control Commission/ The Organization of American States (CICAD/OAS) and Centre for Addiction and Mental Health (CAMH).

Given that permission is granted, the study will be conducted this academic year (2011/2012), from September 2011 to June 2012. It is entitled “The role of family relations, spirituality and entertainment in moderating the relationship between peer influence and drug use among university students”. The main objective of the study is to examine the socio-cultural factors which moderate the relationship between peer influence and drug use among university students. The results of the study will strengthen existing preventive and treatment interventions and inform the development of new ones. The results will also inform polices geared towards minimizing the use of alcohol, tobacco and other mood altering substances. The findings of this study will also serve as foundational material upon which future research can be built. I am kindly requesting the following:

a) Permission to survey a sample of 250 undergraduate students.
b) Permission to recruit from the student body persons who are willing to serve in the capacity of research assistant(s).
c) Permission to submit the proposal to the Ethical Committee/Review Board.

[Include in this letter the date that the CAMH REB approved the multi-centric study proposal]

You kind consideration of the aforementioned would be greatly appreciated.

Yours faithfully

Signature of P.I __________________________
Name of P.I
APPENDIX – J

RECRUITMENT SCRIPT

You are welcome to participate in an international research study.

I am __________ a participant of the Internal Research Capacity – Building Programme for Health Related Professionals to study the Drug Phenomenon in Latin America and the Caribbean. This programme is sponsored by the Inter – American Drug Abuse Control Commission/ The Organization of American States (CICAD / OAS) and Centre for Addiction and Mental Health’(CAMH). The study would be conducted in seven universities from eight countries in Latin America and Caribbean. This includes your university. A total of 2000 undergraduate students, in the participating universities will be sampled. The study is entitled: “The role of family relations, spirituality and entertainment in moderating the relationship between peer influence and drug consumption among university students”. The results of the study will have implications for the formulation of policies, treatment and preventive programmes that would minimize the use of alcohol, tobacco and other mood altering substances by students.

You would be required to provide information on a range of issues including: peer influence, use or non-use of alcohol, tobacco among other mood altering substances, family relationships, level of spirituality and leisurely activities.

We hope you will agree to participate in this study. If you agree to participate, you are assured of confidentiality. You will be given a consent form to complete to indicate your willingness. As a participant of the study, you would be given a questionnaire to complete and will not be required to write your names on the questionnaire. Your participation will contribute significantly to the successful implementation of the study.

If you have any question or comments about the study you can contact me as the principal investigator at (email address) or Tel, No …….. (Optional)

Thank you.

________________