

8-2010

Religiosity, Spirituality and Attendance at Religious Services among Recreational Drug Users: A Sub-Analysis of the Drugnet Survey

Sohini Dhar

Western Kentucky University, sohini.dhar987@wku.edu

Follow this and additional works at: <http://digitalcommons.wku.edu/theses>

 Part of the [Chemicals and Drugs Commons](#), and the [Public Health Commons](#)

Recommended Citation

Dhar, Sohini, "Religiosity, Spirituality and Attendance at Religious Services among Recreational Drug Users: A Sub-Analysis of the Drugnet Survey" (2010). *Masters Theses & Specialist Projects*. Paper 181.
<http://digitalcommons.wku.edu/theses/181>

This Thesis is brought to you for free and open access by TopSCHOLAR®. It has been accepted for inclusion in Masters Theses & Specialist Projects by an authorized administrator of TopSCHOLAR®. For more information, please contact topscholar@wku.edu.

RELIGIOSITY, SPIRITUALITY AND ATTENDANCE AT RELIGIOUS SERVICES
AMONG RECREATIONAL DRUG USERS:
A SUB-ANALYSIS OF THE DRUGNET SURVEY

A Thesis

Presented to

The Faculty of the Department of Public Health

Western Kentucky University

Bowling Green, Kentucky

In Partial Fulfillment

Of the Requirements of the Degree

Master of Public Health

By

Sohini Dhar

August 2010

RELIGIOSITY, SPIRITUALITY AND ATTENDANCE AT RELIGIOUS SERVICES
AMONG RECREATIONAL DRUG USERS:
A SUB-ANALYSIS OF THE DRUGNET SURVEY

Date Recommended: 5/7/10
Thomas Nichols
Director of Thesis

John Blue
Grace Larty

Acknowledgement

This thesis is the end of my long journey in obtaining my Masters degree in Public Health. There are many people who made this journey easier with words of encouragement and more intellectually satisfying by offering different places to look to expand my theories and ideas. It is a pleasure to thank the many people who made this thesis possible. I would like to thank all of them who have helped and inspired me during my thesis research.

I would like to express my deep and sincere gratitude to my advisor and thesis director, Dr. Thomas Nicholson. His wide knowledge and expertise have been of great value for me. His understanding, encouragement and personal guidance have provided a good basis for the present thesis. I am deeply grateful to Dr. Nicholson for his detailed and constructive comments, and for his continuous support throughout this work. Throughout my thesis writing period, he provided encouragement, sound advice, good teaching, good company, and lots of good ideas. I would have been lost without him.

I would also like to thank the rest of my thesis committee, Dr. White and Dr. Lartey for their encouragement, and insightful comments. Their ideas and wisdom have had a remarkable influence on my thesis research.

I would like to give special thanks to Dr. White for helping me with his computer expertise in running SPSS, data analysis, and data formatting.

I owe a very sincere debt of gratitude to Dr. Duncan for his valuable advice and friendly help. His extensive discussions about my work and interesting explorations in operations have been very helpful for this study. I would also like to thank him for the patience he has shown in correcting all my drafts.

I also wish to thank Ms. Carol Watwood for her help with my literature review, and obtaining documents from Interlibrary Loan.

I wish to thank my entire extended family and friends for their unflagging love and support throughout my life. This thesis would have been simply impossible without them.

I would like to especially thank my husband, Mrinmoy for his moral support, encouragement, positive comments, and suggestions throughout my thesis writing period.

Lastly, and most importantly, I wish to thank my parents, Sutapa Dhar and Siddhartha Dhar. They bore me, raised me, supported me, taught me, and loved me. To them I dedicate this thesis.

Table Of Contents

Acknowledgements.....	i
Table of Contents.....	iii
List of Tables.....	v
List of Figures.....	vi
Abstract.....	vii
Chapter 1:Introduction.....	3
Purpose of Study.....	7
Need of Study.....	8
Research Questions.....	9
Delimitations.....	9
Limitations.....	9
Assumptions.....	10
Definitions.....	10
Chapter 2: Review of Literature.....	12
Motivations for Drug Use.....	14
Psychoactive Drugs and Religiosity/ Spirituality.....	16
Chapter 3: Methods.....	25
Research Questions.....	25
Population.....	25
Sample.....	25
Procedures.....	26

Data Collection	27
Instrumentation	27
Data Analysis	28
Chapter 4: Results	29
Study Sample	29
Exploratory Analysis	33
Chapter 5: Conclusion.....	38
Summary of Results	38
Discussion	39
Limitations	40
Conclusions.....	41
Recommendations.....	41
Appendix.....	43
References	74

List of Tables

Table 1: Subjects' Mean Age and Self-reported Current Health Status	30
Table 2: Sample Demographics	31
Table 3: Subjects' Education and Income	32
Table 4: Subject's Community and Recreation Activities	34
Table 5: Religious Attendance.....	35

List of Figures

Figure1: Correlations with the First Canonical Function	37
---	----

RELIGIOSITY, SPIRITUALITY AND ATTENDANCE AT RELIGIOUS SERVICES
AMONG RECREATIONAL DRUG USERS:
A SUB-ANALYSIS OF THE DRUGNET SURVEY

Sohini Dhar

August 2010

79 Pages

Directed by: Thomas Nicholson, John White, and Grace Lartey

Department of Public Health

Western Kentucky University

This study is a sub-analysis of the previously collected cross-sectional DRUGNET survey data. The sample included 1,178 current users of illicit drugs and 389 former users. This study was delimited to U.S. citizens, aged 18 years and older, who completed the DRUGNET survey (n =1,567). DRUGNET was a descriptive online survey of self - reported attitudes and behaviors among a group of adult, self - identified drug users (i.e., not drug abusers). The purpose of the sub-analysis was to explore the importance of religion, spirituality, and religious service attendance in the context of an otherwise normal healthy adult life. Moreover, it also looked into potential patterns of association between aspects of religiosity/spirituality and illicit drug use. The study explored if there was a relationship between the strength of a respondent's spiritual or religious beliefs and the patterns of their recreational drug use. A canonical correlation analysis was conducted using self-rated spirituality, self-rated religiosity, and attendance at services as variables on the left (entered in MANOVA as dependent variables) and self-reported use of six groups of drugs as variables on the right (entered in MANOVA as covariates). One significant function was found, which showed that attending religious services and importance of religion were negatively associated with the use of alcohol, marijuana, cocaine, and hallucinogens. That is, people who reported a higher level of

religiosity and who attended religious services were less likely to use these psychoactive drugs.

Chapter 1

Introduction

Human beings have been using drugs since the beginning of civilization. Drug use is also universal. Every human culture throughout history has used one or more psychoactive drugs. It is so common that drug taking sometimes looks like a regular activity and an accepted norm. Usually, the use of certain drugs is approved and integrated into the life of a tribe, community or nation and sometimes in formal rituals and ceremonies (Weil & Rosen, 2004). For example, priests or shamans have ingested plants of millennia to induce states of dissociative trance. The mushroom *Amanita muscaria*, commonly known as fly agaric, has been at the center of religious rituals in Central America, Northeast Siberia (18th Century) and ancient India (Krankheit & Arznei; Krauter, Geister, & Rezepturen, as cited in Crocq, 2007). Another example includes the use of marijuana by the yogis in India for rituals. Some early Muslim sects encouraged the use of coffee in religious rites but had strict prohibitions against alcohol. On the other hand, when coffee came to Europe in the 17th century, the Roman Catholic Church opposed it as an evil drug but continued the use of wine in rituals (Weil & Rosen, 2004).

A common definition of the word drug is any substance that in small amounts produces significant changes in the body, mind or both (Weil and Rosen, 2004). Weil and Rosen (2004) point out that drugs themselves are neither good nor bad; rather they are potentially powerful substances that can be put to good or bad use, whether legal or illegal, approved or unapproved. Over most of the past century, American drug policy has been dominated by the simple dichotomy of legal drugs versus illegal drugs or good

drugs versus bad drugs. Legal drugs, this dichotomy holds, cure diseases, lessen suffering and make people's lives better, while illegal drugs damage physical and mental health, and cause suffering (Koenig, Mc Culloug, & Larson, 2001).

According to Nicholson (1992):

Legal products such as alcohol, tobacco, coffee, tea, chocolate and certain prescription psychoactive drugs are widely consumed. Less widely used are the predominantly illegal drugs such as heroin, cocaine, and marijuana. All of these drugs, legal and illegal alike, have potent central nervous system effects and if abused, can produce deleterious effects upon the human body. The legal status of these drugs (licit or illicit) thus is not based on their pharmacological effects, or on their potential for harm. (p. 277-288)

The United States when compared to other countries may be considered a medicated society (NIDA Notes, 2009). Prescription drugs are those which are commercially produced and can be legally sold or dispensed only by a physician or on a physician's order (Duncan & Gold, 1982). According to U.S. Drug Enforcement Administration, Hydrocodone is the most frequently prescribed opioid in the United States with nearly 130 million prescriptions for hydrocodone-containing products dispensed in 2006. Every age group has been affected by the relative ease of hydrocodone availability and the medical prescriber's perception of their safety. Sometimes viewed as a "white collar" addiction, hydrocodone abuse has increased among all ethnic and economic groups (U.S. Drug Enforcement Administration, 2007).

Most Americans probably do not even think of the effects of some of the legal drugs on their body. Their notion may be that since they are legal, they should be without negative consequences. In addition, illegal drugs are also a fact of life in the United States and other countries. The latest report provided by the 2008 National Survey on Drug Use and Health (NSDUH), showed that an estimated 20.1 million Americans aged 12 or older had used an illicit drug during the month prior to the survey interview. This estimate represents 8.0 % of the U.S. population aged 12 years old or older.

According to Reneau (1997):

Drug use is everywhere in today's society. People use drugs to wake up, to go to sleep, relieve pain, to forget their problems, to feel good and numerous other reasons. (p. 1)

Although many approaches to drug abuse prevention have been tried, most of them can be summarized in terms of five general models of prevention, each based on a different set of underlying assumptions about drug-abusing behavior and its motivations (Duncan & Gold, 1982). Of the five models, the socio-cultural model sees the root of drug consumption in our society and not in the individual. The solution to drug abuse therefore lies in changing society, not the individual. Religion plays a significant role in human society, and has a potential influence on individuals as well. For example, Benjamin Franklin stated that "religion will be a powerful regulator of our actions, give us peace and tranquility within our minds, and render us benevolent, useful and beneficial to others" (Isaacson, as cited in Paul, 2005) while helping to initiate the American democratic experiment. Also, "when the theory of biological evolution helped in

removing the need for a supernatural creator, concerns immediately arose over the societal implications of any widespread abandonment of faith” (Desmond & Moore; Numbers, as cited in Paul, 2005). In 1880, the religious moralist Dostoyevsky penned the famous warning that “if God does not exist, then everything is permissible” (Paul, 2005).

Each person may view his or her spirituality in a different way. For some individuals, conventional religious behaviors are a part of spirituality while in others such beliefs may play little or no part. The general definition of spirituality is therefore controversial. It is related to, but not synonymous with religiosity. Religiosity displays specific behavioral, social, doctrinal and denominational characteristics because it involves a system of worship and doctrine that is shared by a group (Grodzicki, 2005). Spirituality can be defined as a relationship between an individual and a transcendent or a higher being, force, energy, or mind of the universe (Peterson & Nelson, 1987). However, in the United States, organized religion provides the most common path to spiritual growth and development, and helps provide answers to spiritual questions (Chappel, 2003).

According to George, Larson, Koeng, & McCullough (2000):

Historically, there has been little interest in distinguishing between religion and spirituality. Recent scientific studies of religion and spirituality reveal both cultural similarities and differences in meaning.

Both spirituality and religion focus on sacred or divine, beliefs about sacred, the effects of those beliefs on behavior, practices used to attain or enhance a sense of the sacred, and experiences of spiritual or religious states of consciousness. The major difference is that religion is viewed as

being linked to formal religious institutions, whereas spirituality does not depend upon a collective or institutional context (Pargament, 1997).

Although some people perceive important differences between religion and spirituality, most do not. A large majority of Americans describes themselves as both religious and spiritual (Zinnbauer, Pargament, Cowell, Rye, & Scott, 1997). A recent panel convened by the National Institute of Healthcare Research (NIHR) to comprehensively review extant research on spirituality and health recommended useful definitions of religiousness and spirituality (Larson, Sawyers, & McCullough, 1997). The NIHR panel defined spirituality as 'the feelings, thoughts, experiences, and behaviors that arise from a search for sacred' (Larson et al., 1997). The definition of religion or religiousness included two criteria. The first could be met in one of two ways: (a) as a result of a search for the sacred (identical to the definition of spirituality); or (b) as a search for non sacred goals in a context where the primary goal is search for the sacred. The second criterion was that the means and methods of the search receive validation and support from an identifiable collectivity. Thus the distinctive character of religion is its collective reinforcement and identity.

(p. 103-104)

Purpose of the Study

The purpose of the sub-analysis was to explore the importance of religion, spirituality, and religious service attendance in the context of an otherwise normal

healthy adult life. The study focused on potential patterns of association between aspects of religiosity/spirituality and illicit drug use.

Need for the Study

In general, studies that have examined religious affiliation and drugs have found an inverse relationship between religiosity/spirituality and attitudes or behavioral patterns towards substance use. Chitwood, Weiss, and Leukfield (2008) analyzed 105 peer-reviewed articles about the relationship between religiosity/spirituality and alcohol and drug use that were published between 1997 and 2006. They found that higher levels of religiosity and spirituality, regardless of how they have been measured, for the most part have been found to be associated with decreased risk of substance consumption. The results from the 2008 National Survey on Drug Use and Health indicate that the rates of the past month use of illicit drugs, cigarettes and alcohol were lower among youths aged 12 to 17 who agreed that religious beliefs were a very important part of their life as compared to those who disagreed. For example, in 2008, past month illicit drug use was reported by 6.8 % of those who agreed that religious beliefs are a very important part of life compared with 16.2 % of those who disagreed with that statement (Office of Applied Studies, 2009).

To date, however, surveys of adult drug users (not abusers) which explore their religious and spiritual beliefs in addition to their drug use behaviors are not readily available in the published literature. Researchers have shown that most adults who use recreational drugs consume moderately and do not have a substance abuse disorder. Generally speaking, only about 10% to 20 % of the users of a drug (other than tobacco) ever develop an abuse problem (Anthony & Helzer, 1991; Duncan, White & Nicholson,

2003; Nicholson, Duncan & White, 2002). Moreover, in spite of having a long history of a common association of spirituality and substance use across the world, researchers have rarely considered spirituality and drug use as a dimension worthy of scientific investigation (Sussman, Skara, Rodriguez, & Pokhrel, 2006).

The current study is intended to explore the generally hidden population of otherwise healthy drug users and what, if any, religious or spiritual dimensions characterize these people. The study also attempts to document and describe these adults in the population who moderately use recreational drugs, who are generally happy with their lives and who report varying levels of religiosity or spirituality.

Research Questions

1. Among non-abusive illicit drug users how important are religion and spirituality?
2. Among non-abusive illicit drug users how many attended religious services regularly?
3. Are there any patterns of association between aspects of religiosity/spirituality and illicit drug use?

Delimitations

This study was delimited to U.S. citizens, aged 18 years and older, who completed the DRUGNET survey on the Internet between December 1997 and June 1998.

Limitations

1. Due to non-random nature of the sampling method, results cannot be generalized to the general population;
2. The subjects were self-selected;

3. The majority of Internet users in the United States at the time this study was done were white men of upper socio-economic strata. Hence, they are not necessarily representative of the recreational drug user population;
4. The study is based on self-reported behaviors. There is no way to verify the validity of responses.

Assumptions

1. It is assumed that individuals were able to understand the directions for taking the survey and completed all sections pertaining to them;
2. It is assumed that individuals answered the questionnaire honestly and to the best of their ability.

Definitions

Drug. Any substance that, by virtue of its chemical nature, alters the structure or functioning of any living tissues of a living organism (Duncan & Gold, 1982);

Drug Use. Taking a drug in such a manner that sought-for effects are attained with minimal hazard (Irwin, 1973);

Drug Abuse. Taking a drug to such an extent that it greatly increases the danger or impairs the ability of an individual to adequately function or cope with their circumstances (Irwin, 1973);

Illicit Drug. Drugs whose sale, purchase or use are generally prohibited by law (Duncan & Gold, 1982);

Prescription Drug. Commercially produced drugs that can be legally sold or dispensed only by a physician or on a physician's order (Duncan & Gold, 1982);

Health. A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (World Health Organization, 1948);

Religion. The personal commitment to and serving God or a God with worshipful devotion, conduct in accord with divine commands especially as found in accepted sacred writings or declared by authoritative teachers, a way of life recognizes as incumbent on the believers, and typically the relating of oneself to an organized body of beliefs (Gove, 1993);

Religiosity. Religiosity may be thought of as a belief in God or higher power and practices associated with faith-related institutions. Religiosity involves religious identity (religious group affiliation, religious self-identity), behavior (attendance at religious services or individual religious practices), attitudes (importance of religion), perceptions (religion's negative sanctions against certain behaviors), and practices (adherence to rules and sanctions) (National Institute of Health, 2006);

Spirituality. The feelings, thoughts, experiences, and behaviors that arise from a search for the sacred (Larson, Swyers, McCullough, 1997).

Chapter 2

Literature Review

Psychoactive drugs have been in use from the beginnings of civilization. Humans have been motivated to use drugs of one sort or another for thousands of reasons and under varied circumstances (Heiman, 1960; Musto, 1989; Stewart, 1967; Snyder, 1970; The Holy Bible, 1983; Weil & Rosen, 1993). Two archeological examples reported by Nairn (2008) exemplify that humanity has been using drugs at widely different places of the world for thousands of years. In Chile, new tests on members of the Tiwanaku, an ancient pre-Hispanic civilization, have shown clear signs of drug use while their graves were found to contain equipment for using hallucinogens. In a separate discovery, bowls and pipes for mixing and inhaling hallucinogens were uncovered in a Stone Age grave on the Caribbean Island of Carriacou.

According to Weil & Rosen (1993), drug consumption appears to have been universal. Human beings have always had a desire to eat or drink substances that make them feel relaxed, stimulated, or euphoric. In fact, drug taking is so common that it seems to be a basic human activity. Usually the use of certain drugs is approved and integrated into the life of a tribe, community, or nation, sometimes in formal rituals and ceremonies.

References to the ritual use of drugs are scattered through the history of religions, and there is no doubt that the practice is ancient, its origins lost in prehistory. Use of specific psychoactive agents is proscribed to certain religious traditions, and prescribed in others (Weil & Rosen, 1993). For example, tobacco has been regarded as sacred by some Native Americans. Alcohol has been used for over 10,000 years by different cultures

including the Mayans who drank plaque, a fermented beverage made from juice of the maguey, in religious ceremonies (Clayton et al., 1988).

The National Survey on Drug Use and Health (NSDUH) is the primary source of information on the use of illicit drugs, alcohol, and tobacco in the civilian, non-institutionalized population of the United States aged 12 years old or older. The NSDUH is an annual survey conducted on behalf of the Substance Abuse and Mental Health Services Administration (SAMHSA) of the U.S. Department of Health and Human Services (HHS). This survey interviews approximately 67,500 persons each year based on a representative sample of U.S. households and of civilians living on military installations, persons living in college dormitories, and persons living in homeless shelters.

The latest report provides information from the 2008 survey. In 2008, an estimated 20.1 million Americans aged 12 or older were current illicit drug users, meaning they had used an illicit drug during the 30 days prior to the survey interview. This estimate represents 8.0 % of the population aged 12 years or older.

Marijuana was the most commonly used illicit drug in 2008, with 15.2 million past month users. Among persons aged 12 or older, this is a rate of past month marijuana use of 6.1 percent. In 2008, there were 1.9 million current cocaine users aged 12 or older, comprising 0.7 percent of the population. Hallucinogens were used in the past month by 1.1 million persons (0.4%) aged 12 or older in 2008, including 555,000 (0.2%) who had used MDMA (3, 4-Methylenedioxy-methamphetamine, commonly known as Ecstasy). There were 6.2 million persons (2.5%) aged 12 or older who used prescription psychotherapeutic drugs non-medically in the past month. Slightly more than half

(51.6%) of Americans aged 12 or older reported being current drinkers of alcohol in the 2008 survey.

When the entire spectrum of psychoactive drugs is taken into consideration, most Americans currently consume or have in the past consumed some kind of psychoactive substances. Drug consumption can be categorized into areas of drug use and drug abuse. Drug use has been defined as taking a drug in such a manner that sought-for effects are attained with minimal hazard (Irwin, 1973). Drug abuse is taking a drug to such an extent that it greatly increases the danger or impairs the ability of individual to adequately function or cope with their circumstances (Irwin, 1973). A very important but seldom discussed fact about drug consumption in America is that most is use and not abuse (Nicholson, Duncan & White, 2002).

Motivations for Drug Use

Drugs are fascinating because they can change awareness of ourselves and the world. There are other ways of changing consciousness such as listening to music, making music, dancing, fasting, chanting, exercising, surfing, meditating, falling in love, and hiking in the wilderness. According to Weil and Rosen (1983) having sex, day dreaming, watching fireworks, going to a movie or a play, jumping into cold water after taking a hot sauna, and participating in religious rituals etc. also change one's consciousness. The basic reason people take drugs is to vary their conscious experience (Weil & Rosen, 1993).

Cohen (1971) and Dohner (1972), in papers published a year apart, with each citing the other's earlier work, proposed similar lists of motives for illicit drug use. Cohen (1971) proposed a list of basic motivational forces leading to drug use. One

motivation is that people take drugs because they want to 'feel better' or 'get high'. People have also been taught by cultural example that drugs are an effective way to make them feel better. Another principle states that 'feeling better' encompasses a huge range of mood or consciousness change, including such as oblivion-sleep, emotion shift, energy modification and visions of the Divine, etc. Other principles include that with many mind or mood altering drugs individuals may temporarily feel better; individuals do not stop using drugs until they discover 'something better'; and the key to meeting problems of drug abuse is to focus on the 'something better', and maximize opportunities for experiencing satisfying non chemical alternatives.

In 1972, Dohner proposed several motives for drug use. According to him the motives for drug use are almost as varied as the agents for mood alteration. They are curiosity, imitation, peer pressure, well-being, instant achievement, relaxation, recreation, and psychological support.

Many drug users talk about getting high. Highs are states of consciousness marked by feelings of euphoria, lightness, concentration and energy. Although the desire for high states is at the root of drug taking in both children and adults, people also take drugs for other more practical reasons (Weil & Rosen, 1993).

Weil and Rosen (1993) state that people take drugs to vary their conscious state in order to: a) aid religious practices; b) explore self; c) alter moods; d) treat disease; e) escape boredom and despair; f) promote and enhance social interaction; g) enhance sensory experience and pleasure; h) stimulate artistic creativity and performance; i) improve physical performance; j) rebel; k) respond to peer pressure; and l) establish an identity.

Social psychologists have attempted to categorize the overall effects of practices and chemicals which alter states of consciousness. Ten general characteristics of religious ecstasy states, mystical union and drug induced alterations of consciousness have been delineated by Ludwig (1969): a) Altered thinking - varying distribution of concentration, attention, memory and judgment; b) Disturbed time sense - a sense of timelessness and the slowing down or acceleration of time; c) Loss of control - which may either be feared or, given particular cultural beliefs, willingly accepted in order to experience divinity or become a mouthpiece for gods; d) Change in emotional expression - expression of emotional extremes unlike those of normal waking hours from ecstasy and orgiastic equivalents to profound fear, terror and depression; e) Changes in body image - various distortions, often with a profound sense of depersonalization; f) Perceptual distortions - increased visual imagery, hyper acuteness of perceptions, geometric patterns; g) Change in meaning or significance - special significance attached to subjective experience, with great insight or profound feelings; h) Sense of the ineffable - difficulty in communicating the nature of the experience to someone uninitiated; i) Feeling of rejuvenation; and j) Hyper suggestibility - increased propensity to accept or respond to specific statements of the person guiding the session.

Psychoactive Drugs and Religiosity/Spirituality

Religiosity is multidimensional. Koenig, McCullough, and Larson (2001) identified twelve major dimensions of religiosity which are: a) religious belief; b) religious affiliation or denomination; c) organizational religiosity; d) subjective religiosity; e) religious commitment/ motivation; f) religious 'quest'; g) religious experience; h) religious well-being, of religious coping; i) religious knowledge; and

j) religious consequences. They referred to spirituality as an overarching concept that includes religion. They defined spirituality as the personal quest for understanding answers to ultimate questions about life, about meaning and about a relationship to the sacred.

In a literature review, Chitwood, Wiss and Leukefeld (2008) examined 105 selected articles published between 1997 and 2006 that examined the association between religiosity/spirituality and the use of multiple psychoactive substances. They categorized six major types of religiosity as follows: a) Organizational religiosity, which refers to the participation in formal religious activities requiring some level of social interaction; b) Religion affiliation, which refers to identification with popular religious groups; c) Subjective religiosity, which refers to an internal education or self ranking of individual religiousness; d) Religious belief, which is a cognitive dimension of religiosity; e) Non –organizational religiosity, which refers to religious activities and practices that can be performed in solitude and do not require interaction with other persons; and, f) Religious coping, which refers to religious behaviors and activities and activities that people engage in to cope with stress or difficult life situations, such as praying to god for assistance or emotional support, reading scriptures for comfort and discussing problems with ministers and chaplains. One or more of the aforementioned dimensions of religiosity were significantly related to a reduced risk of substance use or misuse in 99 out of the 105 publications. Only four studies in the same review reported findings that suggested that religiosity was associated with an increased risk of use or misuse. In this review, the overall effect clearly supported that religiosity reduces ($p < .05$) the probability of psychoactive drug use. Marijuana was the most frequently examined

illicit drug use, and religiosity was observed to be a protective factor in 31 of 37 studies on marijuana (Chitwood, Wiss & Leukefeld, 2008).

Gorsuch and Butler (1976) did a literature review of 20 studies which examined the relationship between religiosity and drug use. They found that whenever religion was used in an analysis, it predicted those who had not used an illicit drug, regardless whether the research was conducted prospectively or retrospectively, and regardless of whether the religious variable was defined in terms of membership, active participation, religious upbringing, or meaningfulness of religion as viewed by the person himself (Gorsuch & Butler, 1976). In a review of a more recent literature, Gartner (1991) found that 11 out of 12 of the studies reviewed, showed the same negative relationship between various measures of religious commitment and drug use.

Adlaf and Smart (1985) examined the relationship between religious affiliation, intensity of religious feelings, frequency of church attendance on one hand, and on the other, drug use among a sample of adolescent students (N =2,066). Six drug-use measures were employed: alcohol use; cannabis use; non-medical and medical drug use; hallucinogenic use; and poly-drug use. The findings indicated that, religious-affiliation of students was not significantly related to drug use ($p > 0.05$). The only exception to this rule was for alcohol use ($p < 0.05$), in which case non-affiliated students used less frequently than did Protestant or Roman Catholic students. Church attendance exhibited a stronger negative effect on drug use than did religious affiliation ($p < 0.001$). However, the effect of the latter had greater impact among females than among males ($p < 0.001$).

Kendler et al. (2003) used data from a general population sample to examine the dimensions of religiosity and the relationships of these dimensions to risk for lifetime

psychiatric and substance use disorders. Responses to 78 items assessing various aspects of broadly defined religiosity were obtained from 2,616 male and female twins from a general population registry. The association between the resulting religiosity dimensions and the lifetime risk for nine disorders assessed at personal interview was evaluated by logistic regression. Of these disorders, five were "internalizing" (major depression, phobias, generalized anxiety disorder, panic disorder, and bulimia nervosa), and four were "externalizing" (nicotine dependence, alcohol dependence, drug abuse or dependence, and adult antisocial behavior). Results showed an inverse relationship between certain aspects of religiosity and a lifetime history of substance use disorders.

Merrill, Salazar, and Gardner (2001) evaluated the relationship between several dimensions of parental and family religiosity and adolescent drug use behavior. Analysis was based on responses to a self-report questionnaire administered to 1,036 undergraduate college students at Brigham Young University, of whom 99.1% were members of the Church of Jesus Christ of Latter-Day Saints (LDS). About 86% reported having never used drugs. The most commonly reported reasons for abstention from drugs were that drug use violates the participants' religious beliefs and their personal moral code. In contrast, concern about legal consequences, harming family reputation, and avoiding dishonest behavior were among the least common reasons for abstaining from drugs ($p < 0.001$). According to the study, children of parents who were neutral, versus critical, about religion were more likely to have a history of drug use. The inverse relationship tends to be relatively strong among members of the Church of Jesus Christ of Latter-Day Saints (LDS). This may be due to the strict health code in the LDS Church

discouraging tobacco, alcohol, coffee, tea and illicit drugs and the misuse of prescription drugs (Merrill, Salazar, & Gardner, 2001).

Dictionaries define spirituality with phrases like concerned with or affecting the soul, not tangible or material or pertaining to god. In practice, it is experienced subjectively by any given individual (Sharma, 2006). The Latin root of spirituality is 'spiritus' meaning breath. As early as the 5th century, the word spirituality was used with explicitly Christian reference to the influence of God; the Holy Spirit and human lives. By the 12th century the word had come to refer to what we might call the psychological aspect of human experience, in contrast to the material or corporeal, and in the 15th and 16th centuries, spirituality was used to refer to ecclesiastical people, properties or revenues. In the 20th century the word came into widespread usage in many languages, in relation to all religious traditions and untied to any one religious tradition, but without satisfactory definition (Wakefield, 1988). Despite the long history of a common association of spirituality and substance use across the world, researchers have rarely considered spirituality as a dimension worthy of scientific investigation (Sussman, Skara, Rodriguez, & Pokhrel, 2006). Empirical studies have looked at a possible role of spirituality as protective against alcohol and drug abuse.

Zimmerman and Maton (1992) used a cluster analysis model to study lifestyle and substance use among male African-American adolescents. They analyzed four variables (school attendance, employment, church attendance, and delinquency) to develop lifestyle profiles. Five meaningful clusters were retained and subjected to criterion validity analyses using measures of spirituality, participation in a voluntary organization, self-esteem, and friend's substance use. The five clusters were then compared on

cigarette, alcohol, marijuana, and hard drug use. The results suggest that a lifestyle that includes an adaptive compensatory behavior component may be more adaptive than a lifestyle that does not include compensatory behavior ($p < 0.001$). For example, youths who left high school before graduation but were involved in church reported less alcohol and substance use than youths who left school and were not involved in any meaningful instrumental activity (Zimmerman & Maton, 1992).

Spirituality enhancement has been considered as a means to prevent relapse among those abstaining from drug use, as well as a means to obtain a balanced lifestyle (Miller, 1998; George, Larsons, Koeing, & McCullough, 2000). The review paper by Miller (1998) considered how spiritual dimensions are pertinent to and proper subjects for addiction research. According to him, spiritual/religious involvement may be an important protective factor against alcohol/drug abuse.

George and his colleagues (2000) focused on the relationships between religiosity/spirituality and health. According to these authors even though the effect sizes are small, there are links between religiosity and reduced onset of physical and mental illness, reduced mortality and likelihood of recovery from physical or mental illness (George, Larson, Koeng, & McCullough, 2000). It was also seen that spirituality also prevents drug use and other risk taking behaviors among youths.

Kass (1991) conducted clinical observations of 83 adult outpatients in a hospital-based behavioral medicine program. The study revealed a relationship between spiritual experiences, life purpose and satisfaction, and improvements in physical health. This led to the development of an Index of Core Spiritual Experience (INSPIRIT). Patients were taught to elicit the relaxation response in a 10 week treatment program for the stress

related components of illness. Data were collected at the beginning and end of treatment. Data from 83 medical outpatients showed the INSPIRIT to have a strong degree of internal reliability and concurrent validity. Multiple regression analyses showed the INSPIRIT to be associated with increased life purpose and satisfaction, a health-promoting attitude and decreased frequency of medical symptoms (Kass, 1991). Pullen and his colleagues (1999) investigated relationships between alcohol and drug abuse by adolescents and frequency of religious service attendance in the south-east United States. Data obtained from surveys of 217 adolescents, age 12–19 years, were analyzed. The adolescents included participants from both clinical and non-clinical settings. Results from both groups showed that, as attendance at religious services increased, alcohol and drug use decreased (Pullen, Modrcin-Talbott, West, & Muenchen, 1999).

Of some curiosity is the fact that spirituality is not always inversely related to drug use among youth and adults. Sussman, Skara, Rodriguez, and Pokhrel (2006) explored two different dimensions of spirituality that might tap negative and positive relations with adolescent drug use over a 1-year period. Non-drug-use-specific spirituality measured how spiritual the person believes he or she is, participation in spiritual groups, and engagement in spiritual practices such as prayer. Whereas, drug-use-specific spirituality measured drugs as a spiritual practice. Self-report questionnaire data were collected (1997–1999) from a sample of 501 adolescents in 18 continuation high schools across southern California. Participants ranged in age from 14 to 19 and were 57% male, with an ethnic distribution of 34% White, 49% Latino, 5% African American, 7% Asian, and 5% other. A series of general linear model analyses were conducted to identify whether or not two different spirituality variables predicted drug

use (cigarettes, alcohol, marijuana, hallucinogens, and stimulants) at 1-year follow-up. After controlling for baseline drug use, non-drug-use-specific spirituality was negatively predictive of alcohol, marijuana, and stimulant use, whereas drug-use-specific spirituality failed to be found predictive of these variables one year later. Conversely, drug-use-specific spirituality was positively predictive of cigarette smoking and hallucinogen use, whereas non-drug-use spirituality failed to be found predictive of these variables. The results provide new evidence that suggests that spirituality may have an effect on drug use among adolescents. The drug-use-specific measure of spirituality showed “risk effects” on drug use, whereas the other measure resulted in “protective effects,” as found in previous research (Sussman, Skara, Rodriguez, & Pokhrel, 2006).

As the history suggests, drug use and abuse is as old as mankind itself. Moreover, drug consumption appears to have been universal. Human cultures in every age of history have used one or more psychoactive drugs. In fact, drug taking has become so common that it seems to be a basic human activity. Research also shows that religious and spiritual beliefs may have an effect on deterring individuals’ drug consumption behaviors. A few studies have also found a similar negative relationship between various measures of religious commitment and drug use. However, in spite of having long history of the common association of spirituality with substance use across the world, researchers have rarely considered spirituality as a dimension worthy of scientific investigation (Sussman, Skara, Rodriguez & Pokhrel, 2006). The current study is intended to explore the generally hidden population of otherwise healthy drug users and what, if any, religious or spiritual dimensions characterize these people. It explores the importance of drug use, religion and spirituality, and religious service attendance in the context of an

otherwise normal healthy adult life. Moreover, it also looks into any pattern of associations between aspects of religiosity/spirituality and illicit drug use.

Chapter 3

Methods

The original DRUGNET study was a descriptive survey of self reported attitudes and behaviors among a group of adult, self -identified drug users (Nicholson, White, & Duncan, 1996). The purpose of this sub-analysis was to describe the religious and spiritual beliefs of these generally normal, successful, adult, recreational drug users. The study was intended to explore the importance of religion and spirituality, religious service attendance and drug use in the context of an otherwise normal healthy adult life. It also explores potential patterns of association between aspects of religiosity/spirituality and illicit drug use.

Research Questions

1. Among non-abusive illicit drug users how important are religion and spirituality?
2. Among non-abusive illicit drug users how many attended religious services regularly?
3. Are there any patterns of association between aspects of religiosity/spirituality and illicit drug use?

Population

The population of interest was the adult recreational drug using population that uses the internet.

Sample

The DRUGNET sample was a self-selected sample of American citizens aged 18 years or older, who completed the survey on the Internet from December, 1997 through June, 1998 (n= 1567). Respondents answering the section of the survey pertaining to

spirituality, religious beliefs and religious service attendance were included for the present study.

Procedures

This study is a sub-analysis of the DRUGNET survey. DRUGNET was a cross-sectional survey of adult, recreational drug users through the World Wide Web (Nicholson, White, & Duncan, 1996). The format of the questionnaire facilitated the collection of data from a large sample of drug users at a relatively low cost in a short period of time. Participation was voluntary and informed consent was implied when the subjects responded to the survey. DRUGNET was first reviewed and approved for testing on human subjects by The Western Kentucky University Human Subjects Review Board in 1996.

Respondents were solicited via mailing lists (e.g., wku.edu mailing lists), and online articles (<http://www.wired.com>). Respondents were directed to the study's web page- namely, <http://wkuweb1.wku.edu/~DRUGNET>. A brief tutorial was included prior to the survey. The respondents were then given a chance to read details regarding the purpose of the study, after which they were assured of the security of their responses. An accompanying link to an anonymizer service (www.anonymizer.com) was provided for additional anonymity. Respondents were then presented with informed consent statements that stated that they were allowing the researchers to utilize their responses for their study (Nicholson, Duncan, & White, 1999). The survey was a 2.0 html compatible document and the respondents were allowed to choose between ranges and coded responses. This provided the researchers a good opportunity to analyze the responses anonymously, quickly and efficiently.

Data Collection

According to Nicholson, White, and Duncan (1996), respondents were actively solicited to participate in an on-line survey located on the World Wide Web. If interested, the volunteers could visit the designated link (<http://www.anonmyzer.com>). They also had access to an informed consent form and could request a hard copy of the form. Because of the sensitivity of the collected data it was essential to protect the confidentiality of the participants. Respondents' IDs were randomly generated.

Participants answered only those questions concerning the drugs they had taken out of the seven categories listed. The categories included were alcohol, marijuana, depressants, cocaine, other stimulants, hallucinogens and opiates. DRUGNET had three other sections including a demographic section, a section dealing with past experiences and opinions, and the General Well-Being Schedule (GWBS). The focus of the current study was the questions pertaining to the religious belief, spirituality and religious service attendance questions of the demography section of the survey.

For the current study existing data archived from the DRUGNET study maintained at Western Kentucky University was utilized. A subset of cases was selected who met the criteria for inclusion in the sample for this study.

Instrumentation

The DRUGNET survey was composed of four major subdivisions – a) demographic; b) past experiences with drugs; c) past experiences and opinion; and d) the General Well-Being Schedule. DRUGNET survey questions ranged in form from quantitative to qualitative. Some of the question formats were multiple-choice, multiple response, Lickert scale, fill-in-blank and short essay. The focus of the current study was

the questions pertaining to the religious belief, spirituality and religious service attendance in the demographic section. These are items 10 through 12 of the demographic section (See Appendix).

Data Analysis

The first and the second research questions were answered by conducting a frequency analysis of the survey results. The third research question was answered using canonical correlation which was performed using the SPSS MANOVA procedure. The religious attendance, religious and spiritual belief variables were entered as dependant variables. The variables alcohol, marijuana, depressant, cocaine, stimulant, hallucinogen and opium usage were entered as co-variants, with no independent variables entered. Parameter estimates were suppressed and DISCRIM statistics were requested. Different variables were weighed on each function. Significance of functions was tested by F-test and variables were considered if they had a canonical correlation 0.3 or greater.

Chapter 4

Results

This study was a secondary analysis of the DRUGNET data set. DRUGNET was a survey of a self-selected sample of American citizens aged 18 years or older, who completed the survey on the Internet from December, 1997 through June, 1998. Since drug laws and policies differ from country to country, this analysis was limited to subjects who were U.S. citizens (n = 1567).

Study Sample

The median age of the subjects was 29 years (SD = 9.7), and ranged from 18 to 74 years (Table 1). The population was largely white and male dominated, with 90.9% being white and 81.6% male (Table 2).

In terms of marital status, 42.9% were never married, and 34.2% were currently married. The majority (83.5%) of their spouses worked. Most (89.7%) were happy with their marital status. And, most (70.7%) did not have primary care responsibility for their children.

The majority of the respondent group was well educated with only 0.2% (n = 3) having an education level less than a high school diploma or equivalent (Table 3). Three-quarters of the respondents had some kind of college education. A majority (70.7%) of the participants worked full-time. A slight majority (50.8%) had more than \$30,000 in household income. Nearly one-quarter (24.2%) had household incomes between \$30,000-\$49,999. The subjects overwhelmingly (82.2%) responded that their family income was adequate to satisfy their current lifestyle needs. No regular involvement in community

Table 1

Subjects' Mean Age and Self-reported Current Health Status

Age(Years)	
Median (SD)	29 (9.7)
Range	18-74
Missing	0
Current Health Status	
Median (SD) 1(very poor) to 6 (excellent)	5 (0.86)
Range	1-6
Missing	7

Table 2

Sample Demographics

Variable	Frequency	Percent
Sex		
Male	1276	81.6
Female	288	18.4
Missing	3	
Race		
Asian	13	0.8
Black	24	1.5
Hispanic/Latino	29	1.9
Native American	11	0.7
Pacific Islander	4	0.3
White	1417	90.9
Other	60	30.9
Missing	9	
Marital Status		
Never married	669	42.9
Married	533	34.2
Divorced/ Separated	138	8.9
Widow/Widower	9	0.6
Living Together	209	13.4
Missing	9	
Spouse Working		
Yes	1165	83.5
No	148	16.5
Missing	672	
Happy with Marital Status		
Yes	1165	89.7
No	134	10.3
Missing	268	
Have Childcare Responsibility		
Yes	407	29.3
No	982	70.7
Missing	178	

Table 3

Subjects' Education and Income

Variable	Frequency	Percent
Educational Attainment		
< high school	3	0.2
High school	335	21.6
GED	43	2.8
Associate Degree	211	13.5
Vocational	72	4.6
Bachelors	604	38.9
Masters	190	12.2
Law	24	1.5
PhD	46	3.0
Post-Doctoral	26	1.7
Missing	13	
Currently in College		
Yes	409	26.5
No	1133	73.5
Missing	25	
Working Status		
Full-time	1094	70.7
Part-time	217	14.0
Self-employed	172	11.1
Unemployed	65	4.2
Missing	19	
Household Income in Dollars		
< 10,999	129	8.4
11,000-29,000	257	16.7
30,000-49,000	372	24.2
50,000-69,000	296	19.2
70,000-89,000	187	12.1
90,000-109,999	95	6.2
110+	204	13.2
Missing	27	
Income meets household needs		
Yes	1263	82.2
No	271	17.6
Missing	31	

activities was reported by 40.1% of the respondents (Table 4). A majority (77.7%) voted regularly in elections. Most of them (96.0 %) had some kind of recreational activity or hobby. The median self-rated physical health status was 5 (Range = 1 to 6; SD = 0.86) on a 6 point Likert scale of 1(very poor) to 6 (excellent).

Exploratory Analysis

First research question

Importance of spirituality among the study sample was measured on an 11 point Likert scale of 0 (no importance) to 10 (central focus of life). The median value of the importance of spirituality in their daily life was 5 (Range = 0 to 10; SD = 3.07; n = 6 missing data). Importance of religion among the study sample was measured on an 11 point Likert scale of 0 (no importance) to 10 (central focus of life). The median value of the importance of religious beliefs and values in their daily life was also 5 (Range = 0 to 10; SD = 3.28; n = 15 missing data). Thus, it can be inferred that religiosity and spirituality have a moderate influence in the life of these participants.

Second research question

Of the participants, 87.1% of them did not attend religious service regularly. This shows that the participants were mostly not attending religious services on a regular basis (Table 5).

Third research question

A canonical correlation analysis was conducted using self-rated spirituality, self-rated religiosity, and attendance at services as variables on the left (entered in MANOVA as dependent variables) and self-reported use of six groups of drugs as variables on the

Table 4

Subject's Community and Recreation Activities

Variables	Frequency	Percent
Regularly Active in Community		
Yes	624	40.1
No	934	59.9
Missing	9	
Regularly Vote		
Yes	1209	77.7
No	347	22.3
Missing	11	
Have Hobbies		
Yes	1498	96.0
No	63	4.0
Missing	6	

Table 5

Religious Attendance

Variable	Frequency	Percent
Regularly Attending Religious Services		
Yes	200	12.9
No	1355	87.1
Missing	12	

right (entered in MANOVA as covariates). The analysis yielded three functions (canonical variates) with squared canonical correlations (Rc^2) ranging from 0.023 to less than 0.000 for each successive function. The full model across all functions was statistically significant using the Wilks's criterion ($\lambda = 0.97$, $F(21, 4399) = 2.18$, $p < 0.001$). Thus, for the set of 3 canonical functions, the r^2 type effect size was 0.03, which indicates that the full model explained about 3% of the variance shared between the variable sets. Significance testing of the functions after the first showed that they were not significant ($F(12, 3066) = 0.778$, $p = 0.107$; $F(5, 1534) = 0.274$, $p = 0.928$). Only function 1 was retained for further analysis ($F(21, 4399) = 2.18$, $p = .001$).

The function yielded a correlation between two of the three religion variables and the drug use variables ($Rc^2=0.023$). These relationships are presented in Figure 1. The correlations are high for attending religious services and the importance of religion in the subject's life (All >0.30).

Figure 1

Correlations with the First Canonical Function

	Spirituality Variables	Drug Use Variables
Positive Association	Attending Services 0.91	
	Religion 0.38	
Negative Association		Alcohol -0.46
		Marijuana -0.66
		Cocaine -0.54
		Hallucinogens -0.93

Chapter 5

Conclusion

The original DRUGNET study was a descriptive survey of self reported attitudes and behaviors among a group of adult, self-identified drug users (Nicholson, White, & Duncan, 1996). The purpose of this sub-analysis was to describe the religious and spiritual beliefs of these generally normal, successful, adult, recreational drug users (n = 1567). The study was intended to explore the importance of religion, spirituality, and religious service attendance in the context of the life of otherwise normal healthy adult drug users. It also explored potential patterns of association between aspects of religiosity/spirituality and illicit drug use.

Summary of Results

The age of the subjects ranged from 18 to 74 years. The sample was largely white and male. In terms of marital status, 42.9% were never married, and 34.2% were currently married. The majority (83.5%) of their spouses worked and most (89.7%) were happy with their marital status. In addition, most (70.7%) of the subjects did not have primary care responsibility for children.

The majority of the respondent group was well educated with three-quarters having some kind of college education. A majority (70.7%) of the participants worked full-time and a slight majority (50.8%) reported having more than \$30,000 per year in household income. The subjects overwhelmingly (82.2%) responded that their family income was adequate to satisfy their current lifestyle needs. The median self-rated physical health status was 4 on a 6 point Likert scale of 1(very poor) to 6 (excellent).

The median importance of spirituality and religious beliefs among the study sample was 5 when measured on an 11 point Likert scale of 0 (no importance) to 10 (central focus of life). Thus, it can be inferred that religiosity and spirituality have a moderate influence in the life of these participants. Of the total participants, 87.1% of them did not attend religious service regularly.

A canonical correlation analysis was conducted using self-rated spirituality, self-rated religiosity, and attendance at services as variables on the left and self-reported use of six groups of drugs as variables on the right. One significant function was found, which showed that attending religious services and higher religiosity was negatively associated with the use of alcohol, marijuana, cocaine, and hallucinogens among recreational drug users.

Discussion

Illicit drug use is generally considered abnormal in today's society. Abnormality is generally seen as deviating from norms. To appreciate what is abnormal we should know what is normal. Literature to date has too often focused on clinical and socially deviant populations such as people in treatment programs, prisons or jail. This study attempted to document and describe the adults in the population who moderately use recreational drugs, who are generally happy with their lives and who report varying levels of religiosity or spirituality. The purpose of the present study was to describe the religious and spiritual beliefs of these generally normal, successful, adult, recreational drug users. The study was intended to explore these religious and spiritual beliefs, and put them in context of an otherwise healthy adult life.

In the current sub-analysis we observed that there was an inverse relationship between both attending religious services and the importance of religion in the subject's life and alcohol, marijuana, cocaine, and hallucinogen consumption. Previous studies by Gartner (1991) showed the same negative relationship between various measures of religious commitment and drug use. Another similar study by Adlaf and Smart (1985) examined the relationship between religious affiliation, intensity of religious feelings, frequency of church attendance on one hand, and on the other, drug use among adolescent students. Their results were also similar in showing that church attendance exhibited a strong negative effect on drug use. It should be noted here that in the present study, even though the sample population was different, similar results as the previous studies were inferred.

Limitations

Due to the non-random nature of the sampling method of the DRUGNET survey, these results cannot be generalized to the general population. The subjects were self-selected and the majority of Internet users in the USA at the time this study was done were white men of upper socio-economic strata. Hence, they are not necessarily representative of the recreational drug user population. The research methods of this study did, however, enable access to a sample from this hidden population.

One of the main problems encountered were related to persistence. Due to the instrument design, there were possible delays between the sections of the survey of approximately 1 minute. Some people would begin taking DRUGNET survey but due to a time lapse between the sections they may have lost interest or felt that they were too busy to complete the survey: thus they quit midstream, leaving large numbers of missing

data at the end of the survey. Another problem involved maintaining on-line status without disruptions considering the availability of internet connection at the time period the survey was conducted.

Conclusions

It can be inferred that religiosity and spirituality have a moderate influence in the life of these participants. The study also shows that the participants were mostly not attending religious services on a regular basis. The correlations were high for attending religious services and the importance of religion in the subject's life. There was an inverse relationship between both attending religious services and the importance of religion in the subject's life and alcohol, marijuana, cocaine, and hallucinogen consumption.

Furthermore, the DRUGNET survey demonstrated that online computer base surveys can be a valuable tool to gain access to hidden populations. In such cases they may not be as threatened by the face to face interaction of a one-on-one in person interview. At the same time, the study was based on self-reported behaviors. Thus, there is no way to verify the validity of responses. It could be argued that the anonymity of this survey increased trust in respondents and may also have increased validity.

Recommendations

Future studies should explore whether similar results hold good for people having different ethnic origins, lower education levels, a lower socio-economic levels and are females. It would also be of importance to study these relationships in other countries. Still unanswered are questions related to the potential causality and directionality thereof,

of the relationships among drug use and various aspects of the human religious and/ or spiritual experience. A replication of this analysis is also recommended.

Demographic Information

We would like to get some demographic information from you. Please answer the following questions about your background. Remember, all of this information is general and will not be used to identify you.

1. Are you a citizen or legal resident of the United States?
 Yes
 No
2. What country(s) are you a citizen of?
If you are a U.S. citizen, leave this question blank
3. Are you currently living the majority of this calendar year in the United States?
 Yes
 No
4. What is your ethnic identification?
 Asian
 Black Hispanic/Latino
 Native American
 Pacific Islander White
 Other
5. What is your gender?
 Male
 Female
6. What is your current age?
7. Are you employed:
 Full-Time Employee
 Part-Time Employee
 Self-Employed
 Unemployed
8. Please type in your job title: *(leave blank if unemployed)*
9. Please tell us, in what industry are you employed? Pick Industry Type ---->

If we left your industry out, please tell us what it is:

10. Please rate how important spirituality is in your daily life:

-
- 0 1 2 3 4 5 6 7 8 9 10
- No importance Central focus of
your life

11. Please rate how important your religious beliefs and values are in your daily life:

-
- 0 1 2 3 4 5 6 7 8 9 10
- No importance Central focus of
your life

12. Do you regularly attend religious services?

- Yes
 No

13. Do you participate in community activities (e.g., PTA, Chamber of Commerce, United Way, etc...)?

- Yes
 No

14. Do you vote regularly?

- Yes
 No

15. How would you rate your own physical health status?

- Excellent
 Good
 Average
 Fair
 Poor
 Very Poor

16. Do you regularly engage in recreational activities (e.g., hobbies, athletics, crafts, reading, etc...)?

- Yes
 No

17. What is your marital status?

- Never Married
 Married

- Divorced/Seperated
- Widow/Widower
- Living with Someone

a. Does your spouse or significant other work? [*Please skip if this question does not apply.*]

- Yes
- No

b. Are you happy with your marital status?

- Yes
- No

18. Do you regularly have parental child care responsibilities?

- Yes
- No

a. If yes, please check all that apply:

- Biological Parent
- Step-Parent
- Adoptive Parent
- Grand Parent
- Foster Parent
- Other Parent

b. Do your children know about your use of illicit drugs?

- Yes
- No

19. Please tell us the highest education level you have achieved:

- Less than High School
- High School
- Graduate Equivalency Diploma (GED)
- Associate Degree (2 year degree)
- Vocational Degree
- Bachelors Degree (BA, BS, etc.)
- Masters Degree (MA, MS, etc.) Law
- Degree
- Doctoral Degree (Ph.D., Ed.D., M.D., etc.)
- Post-Doctoral Study

20. Are you currently attending college?

- Yes

No

a. What is your year in school? [Note: Leave blank if not in college.]

- Freshman
- Sophomore
- Junior Senior
- Graduate Student
- Other

b. What do your parents earn in a year? [If both parents work, please add together parents incomes to obtain the amount. If you are not sure, please take your best guess.] *Skip if you are not in school, or if in school, are self-supported.*

- Less than \$10,999
- \$11,000 to \$29,999
- \$30,000 to \$49,999
- \$50,000 to \$69,999
- \$70,000 to \$89,999
- \$90,000 to \$109,999
- \$110,000 or more

21. What is (or if graduated, was) your last overall GPA?

[Note: Please use a 4 point scale where a 4.0 would be an "A", 3.0 would be "B", etc.]

22. What is your household income? [If both you and your partner work, please add together your incomes to obtain the amount. If you are not sure, please take your best guess.]

If you live at home or your parents support you, we'd like to know just the income that you and/or your partner earn.

- Less than \$10,999
- \$11,000 to \$29,999
- \$30,000 to \$49,999
- \$50,000 to \$69,999
- \$70,000 to \$89,999
- \$90,000 to \$109,999
- \$110,000 or more

23. Do you and/or your partner have enough income to satisfy your current lifestyle needs?

- Yes
- No

USE OF ALCOHOL

I have never used alcohol. Skip to: [COCAINE]

For these questions, a "drink" is considered one 12-ounce beer, a 4-ounce glass of wine, or a mixed drink with 1 and 1/2 ounces ("shots") of hard liquor. The word "intoxication" refers to the effects that a drug has on your mood and consciousness.

NOTE: These questions were written with the assumption that you are currently using this drug. If you have quit using this drug, please answer the questions as if they were asking about your behavior when you were "using."

1. At what age did you first try alcohol?
2. At what age did you first become intoxicated by alcohol?
3. Have you used alcohol in the past year?
 - Yes
 - No

If you haven't used alcohol in the past year, how many years has it been since you drank?

[Note: 1.5 would mean one and one-half years.]

4. Do you consider yourself to have permanently quit using alcohol?
 - Yes
 - No
5. When you do drink alcohol, how many do you usually have, on the average?
If you have quit, how many *did* you drink on average?
6. How many times, on average, do you use alcohol? [Remember, if you have not used alcohol in the past year, what *was* your frequency of use?]
 - At least once a week
 - At least once a month
 - At least once a year
 - Less than once a year
7. When you do use alcohol, what is the level of intoxication that you usually reach?
 - Not at all drunk
 - Mildly drunk
 - Moderately drunk
 - Very drunk
 - Extremely drunk
8. How many times, on average, do you use alcohol and other drugs at the same time?

- At least once a week
- At least once a month
- At least once a year
- Less than once a year
- Never

9. Has your use of alcohol ever caused or contributed to a failure in your education, work or family life -- such as failing a course, being fired, family problems, or a divorce?

- Yes
- No

10. Have you ever used alcohol under circumstances which might be dangerous, such as while driving a car or operating machinery?

- Yes
- No

If you have used alcohol under dangerous circumstances, how often does this occur? [*Skip if you answered no to question #10.*]

- Less than once a year
- Once a year
- A few times a year
- Once a month
- A few times a month
- Once a week
- A few times a week
- Daily

11. Have you ever had legal problems because of your use of alcohol?

- Yes
- No

12. Have you had arguments with your family or friends about your use of alcohol?

- Yes
- No

13. During the year that I most heavily used alcohol, I used it about:

- About the same as first year of use
- Somewhat more than the first year of use
- A lot more than the first year of use

14. This past year I used alcohol:

- Much less than my heaviest year of use
- Somewhat less than my heaviest year of use
- About the same as my heaviest year of use

15. Have you ever experienced withdrawal (e.g., shakes, nausea, trouble sleeping) illness when you stopped taking alcohol?
- Yes
 No

If so, how often does this happen? [*Skip you haven't suffered withdrawal.*]

- On a daily basis
 On a weekly basis
 On a monthly basis
 On a yearly basis
16. Have you wanted to stop using alcohol but had trouble doing so?
- Yes
 No

17. Does getting alcohol occupy a large part of your time?
- Yes
 No

18. Have you ever experienced health or psychological problems as a result of your use of alcohol?
- Yes
 No

If you **have** had health or psychological problems, did you quit using alcohol or cut down on your use as a result? [*Skip if you answered **no** to #17.*]

- Yes
 No

If you **haven't** had health or psychological problems, have you cut down on your use of alcohol? [*Skip if you answered **yes** to #17.*]

- Yes
 No

19. Overall, the effects of alcohol on my life have been:

0 1 2 3 4 5 6 7 8 9 10

Negative Positive

20. What positive effects has alcohol had on your life:

--

USE OF COCAINE (Either Snorted or Smoked: "Coke", "Crack")

I have never used cocaine. Skip to: [DEPRESSANTS]

NOTE: These questions were written with the assumption that you are currently using this drug. If you have quit using this drug, please answer the questions as if they were asking about your behavior when you were "using."

1. At what age did you first try cocaine?
2. At what age did you first become intoxicated by cocaine?
3. Have you used cocaine in the past year?
 - Yes
 - No

If you haven't used cocaine in the past year, how many years has it been since you used cocaine?

[Note: 1.5 would mean one and one-half years.]

4. Do you consider yourself to have permanently quit using cocaine?
 - Yes
 - No
5. When you do use cocaine, how much do you usually have, on the average?
If you have quit, how much *did* you use on average?

Number of Grams

- OR - *Please answer only one!*

Percentage of a Gram % ||
6. How many times, on average, do you use cocaine? [Remember, if you have not used cocaine in the past year, what *was* your frequency of use?]
 - At least once a week
 - At least once a month
 - At least once a year
 - Less than once a year
7. When you do use cocaine, what is the level of intoxication that you usually reach?

- Not at all intoxicated
- Mildly intoxicated
- Moderately intoxicated
- Very intoxicated
- Extremely intoxicated

8. How many times, on average, do you use cocaine and other drugs at the same time?
- At least once a week
 - At least once a month
 - At least once a year
 - Less than once a year
 - Never
9. Has your use of cocaine ever caused or contributed to a failure in your education, work or family life -- such as failing a course, being fired, family problems, or a divorce?
- Yes
 - No
10. Have you ever used cocaine under circumstances which might be dangerous, such as while driving a car or operating machinery?
- Yes
 - No

If you have used cocaine under dangerous circumstances, how often does this occur? [*Skip if you answered no to question #10.*]

- Less than once a year
 - Once a year
 - A few times a year
 - Once a month
 - A few times a month
 - Once a week
 - A few times a week
 - Daily
11. Have you ever had legal problems because of your use of cocaine?
- Yes
 - No
12. Have you had arguments with your family or friends about your use of cocaine?
- Yes
 - No
13. During the year that I most heavily used cocaine, I used it about:
- About the same as first year of use

0 1 2 3 4 5 6 7 8 9 10
Negative Positive

20. What positive effects has cocaine had on your life:

USE OF DEPRESSANTS

I have never used depressants. Skip to: [HALLUCINOGENS]

NOTE: These questions were written with the assumption that you are currently using this drug. If you have quit using this drug, please answer the questions as if they were asking about your behavior when you were "using."

1. At what age did you first try depressants?
2. At what age did you first become intoxicated by depressants?
3. Have you used depressants in the past year?
 Yes
 No

If you haven't used depressants in the past year, how many years has it been since you used

[*Note: 1.5 would mean one and one-half years.*]

4. Do you consider yourself to have permanently quit using depressants?
 Yes
 No
5. When you do use depressants, how much do you usually have, on the average? If you have quit, how many *did* you have on average? (# of pills)
6. How many times, on average, do you use depressants? [Remember, if you have not used depressants in the past year, what *was* your frequency of use?]
 At least once a week
 At least once a month
 At least once a year
 Less than once a year

7. When you do use depressants, what is the level of intoxication that you usually reach?
- Not at all intoxicated
 - Mildly intoxicated
 - Moderately intoxicated
 - Very intoxicated
 - Extremely intoxicated
8. How many times, on average, do you use depressants and other drugs at the same time?
- At least once a week
 - At least once a month
 - At least once a year
 - Less than once a year
 - Never
9. Has your use of depressants ever caused or contributed to a failure in your education, work or family life -- such as failing a course, being fired, family problems, or a divorce?
- Yes
 - No
10. Have you ever used depressants under circumstances which might be dangerous, such as while driving a car or operating machinery?
- Yes
 - No

If you have used depressants under dangerous circumstances, how often does this occur? [*Skip if you answered no to question #10.*]

- Less than once a year
 - Once a year
 - A few times a year
 - Once a month
 - A few times a month
 - Once a week
 - A few times a week
 - Daily
11. Have you ever had legal problems because of your use of depressants?
- Yes
 - No
12. Have you had arguments with your family or friends about your use of depressants?
- Yes
 - No
13. During the year that I most heavily used depressants, I used them about:

- About the same as first year of use
- Somewhat more than the first year of use
- A lot more than the first year of use

14. This past year I used depressants:

- Much less than my heaviest year of use
- Somewhat less than my heaviest year of use
- About the same as my heaviest year of use

15. Have you ever experienced withdrawal (e.g., shakes, nausea, trouble sleeping) illness when you stopped taking depressants?

- Yes
- No

If so, how often does this happen? [*Skip you haven't suffered withdrawal.*]

- On a daily basis
- On a weekly basis
- On a monthly basis
- On a yearly basis

16. Have you wanted to stop using depressants but had trouble doing so?

- Yes
- No

17. Does getting depressants occupy a large part of your time?

- Yes
- No

18. Have you ever experienced health or psychological problems as a result of your use of depressants?

- Yes
- No

If you **have** had health or psychological problems, did you quit using depressants or cut down on your use as a result?

[*Skip if you answered **no** to #17.*]

- Yes
- No

If you **haven't** had health or psychological problems, have you cut down on your use of depressants? [*Skip if you answered **yes** to #17.*]

- Yes
- No

19. Overall, the effects of depressants on my life have been:

○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○
 0 1 2 3 4 5 6 7 8 9 10
 Negative Positive

20. What positive effects has depressants had on your life:

USE OF HALLUCINOGENS (LSD, MUSHROOMS, PEYOTE, Mescaline, ETC.)

I have never used hallucinogens. Skip to: [MARIJUANA]

NOTE: These questions were written with the assumption that you are currently using this drug. If you have quit using this drug, please answer the questions as if they were asking about your behavior when you were "using."

1. At what age did you first try hallucinogens?
2. At what age did you first become intoxicated by hallucinogens?
3. Have you used hallucinogens in the past year?
 - Yes
 - No

If you haven't used hallucinogens in the past year, how many years has it been since you used hallucinogens?

[Note: 1.5 would mean one and one-half years.]

4. Do you consider yourself to have permanently quit using hallucinogens?
 - Yes
 - No
5. When you do use hallucinogens, how much do you usually have, on the average?

If you have quit, how much *did* you have on average? (# of hits, NOTE: .5 would mean half of a hit)
6. How many times, on average, do you use hallucinogens? [Remember, if you have not used hallucinogens in the past year, what *was* your frequency of use?]

- At least once a week
 - At least once a month
 - At least once a year
 - Less than once a year
7. When you do use hallucinogens, what is the level of intoxication that you usually reach?
- Not at all intoxicated
 - Mildly intoxicated
 - Moderately intoxicated
 - Very intoxicated
 - Extremely intoxicated
8. How many times, on average, do you use hallucinogens and other drugs at the same time?
- At least once a week
 - At least once a month
 - At least once a year
 - Less than once a year
 - Never
9. Has your use of hallucinogens ever caused or contributed to a failure in your education, work or family life -- such as failing a course, being fired, family problems, or a divorce?
- Yes
 - No
10. Have you ever used hallucinogens under circumstances which might be dangerous, such as while driving a car or operating machinery?
- Yes
 - No

If you have used hallucinogens under dangerous circumstances, how often does this occur? [*Skip if you answered no to question #10.*]

- Less than once a year
 - Once a year
 - A few times a year
 - Once a month
 - A few times a month
 - Once a week
 - A few times a week
 - Daily
11. Have you ever had legal problems because of your use of hallucinogens?
- Yes

No

12. Have you had arguments with your family or friends about your use of hallucinogens?

Yes

No

13. During the year that I most heavily used hallucinogens, I used them about:

About the same as first year of use

Somewhat more than the first year of use

A lot more than the first year of use

14. This past year I used hallucinogens:

Much less than my heaviest year of use

Somewhat less than my heaviest year of use

About the same as my heaviest year of use

15. Have you ever experienced withdrawal (e.g., shakes, nausea, trouble sleeping) illness when you stopped taking hallucinogens?

Yes

No

If so, how often does this happen? [*Skip if you haven't suffered withdrawal.*]

On a daily basis

On a weekly basis

On a monthly basis

On a yearly basis

16. Have you wanted to stop using hallucinogens but had trouble doing so?

Yes

No

17. Does getting hallucinogens occupy a large part of your time?

Yes

No

18. Have you ever experienced health or psychological problems as a result of your use of hallucinogens?

Yes

No

If you **have** had health or psychological problems, did you quit using hallucinogens or cut down on your use as a result? [*Skip if you answered **no** to #17.*]

Yes

No

If you **haven't** had health or psychological problems, have you cut down on your use of hallucinogens? [*Skip if you answered yes to #17.*]

Yes

No

19. Overall, the effects of hallucinogens on my life have been:

0 1 2 3 4 5 6 7 8 9 10
 Negative Positive

20. What positive effects has hallucinogens had on your life:

USE OF MARIJUANA

I have never used marijuana. Skip to: [OPIATES]

NOTE: These questions were written with the assumption that you are currently using this drug. If you have quit using this drug, please answer the questions as if they were asking about your behavior when you were "using."

1. At what age did you first try marijuana?
2. At what age did you first become intoxicated by marijuana?
3. Have you used marijuana in the past year?
 - Yes
 - No

If you haven't used marijuana in the past year, how many years has it been since you used marijuana?

[*Note: 1.5 would mean one and one-half years.*]

4. Do you consider yourself to have permanently quit using marijuana?
 - Yes
 - No

5. When you do use marijuana, how much do you usually have, on the average? If you have quit, how much *did* you have on average? (# of hits, NOTE: .5 would mean half of a hit)
6. How many times, on average, do you use marijuana? [Remember, if you have not used marijuana in the past year, what *was* your frequency of use?]
- At least once a week
 - At least once a month
 - At least once a year
 - Less than once a year
7. When you do use marijuana, what is the level of intoxication that you usually reach?
- Not at all intoxicated
 - Mildly intoxicated
 - Moderately intoxicated
 - Very intoxicated
 - Extremely intoxicated
8. How many times, on average, do you use marijuana and other drugs at the same time?
- At least once a week
 - At least once a month
 - At least once a year
 - Less than once a year
 - Never
9. Has your use of marijuana ever caused or contributed to a failure in your education, work or family life -- such as failing a course, being fired, family problems, or a divorce?
- Yes
 - No
10. Have you ever used marijuana under circumstances which might be dangerous, such as while driving a car or operating machinery?
- Yes
 - No

If you have used marijuana under dangerous circumstances, how often does this occur? [*Skip if you answered no to question #10.*]

- Less than once a year
- Once a year
- A few times a year
- Once a month
- A few times a month
- Once a week
- A few times a week

Daily

11. Have you ever had legal problems because of your use of marijuana?
 Yes
 No
12. Have you had arguments with your family or friends about your use of marijuana?
 Yes
 No
13. During the year that I most heavily used marijuana, I used them about:
 About the same as first year of use
 Somewhat more than the first year of use
 A lot more than the first year of use
14. This past year I used marijuana:
 Much less than my heaviest year of use
 Somewhat less than my heaviest year of use
 About the same as my heaviest year of use
15. Have you ever experienced withdrawal (e.g., shakes, nausea, trouble sleeping) illness when you stopped taking marijuana?
 Yes
 No
- If so, how often does this happen? [*Skip you haven't suffered withdrawal.*]
 On a daily basis
 On a weekly basis
 On a monthly basis
 On a yearly basis
16. Have you wanted to stop using marijuana but had trouble doing so?
 Yes
 No
17. Does getting marijuana occupy a large part of your time?
 Yes
 No
18. Have you ever experienced health or psychological problems as a result of your use of marijuana?
 Yes
 No

If you **have** had health or psychological problems, did you quit using marijuana or cut down on your use as a result? [*Skip if you answered **no** to #17.*]

- Yes
 No

If you **haven't** had health or psychological problems, have you cut down on your use of marijuana? [*Skip if you answered **yes** to #17.*]

- Yes
 No

19. Overall, the effects of marijuana on my life have been:

- ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○
 0 1 2 3 4 5 6 7 8 9 10
 Negative Positive

20. What positive effects has marijuana had on your life:

USE OF OPIATES (e.g., Heroin, Opium, Methadone, etc.)

I have never used opiates. Skip to: [STIMULANTS]

NOTE: These questions were written with the assumption that you are currently using this drug. If you have quit using this drug, please answer the questions as if they were asking about your behavior when you were "using."

1. At what age did you first try opiates?
2. At what age did you first become intoxicated by opiates?
3. Have you used opiates in the past year?
 Yes
 No

If you haven't used opiates in the past year, how many years has it been since you used opiates?

[*Note: 1.5 would mean one and one-half years.*]

4. Do you consider yourself to have permanently quit using opiates?
 Yes
 No
5. When you do use opiates, how much do you usually have, on the average?
If you have quit, how much *did* you have on average?
We recognize that opiates cover wide range of drugs and methods of use. Please tell us, in your own words, how much you use(d)
6. How many times, on average, do you use opiates? [Remember, if you have not used opiates in the past year, what *was* your frequency of use?]
 At least once a week
 At least once a month
 At least once a year
 Less than once a year
7. When you do use opiates, what is the level of intoxication that you usually reach?
 Not at all intoxicated
 Mildly intoxicated
 Moderately intoxicated
 Very intoxicated
 Extremely intoxicated
8. How many times, on average, do you use opiates and other drugs at the same time?
 At least once a week
 At least once a month
 At least once a year
 Less than once a year
 Never
9. Has your use of opiates ever caused or contributed to a failure in your education, work or family life -- such as failing a course, being fired, family problems, or a divorce?
 Yes
 No
10. Have you ever used opiates under circumstances which might be dangerous, such as while driving a car or operating machinery?
 Yes
 No

If you have used opiates under dangerous circumstances, how often does this occur? [*Skip if you answered no to question #10.*]

- Less than once a year
- Once a year
- A few times a year
- Once a month
- A few times a month
- Once a week
- A few times a week
- Daily

11. Have you ever had legal problems because of your use of opiates?

- Yes
- No

12. Have you had arguments with your family or friends about your use of opiates?

- Yes
- No

13. During the year that I most heavily used opiates, I used them about:

- About the same as first year of use
- Somewhat more than the first year of use
- A lot more than the first year of use

14. This past year I used opiates:

- Much less than my heaviest year of use
- Somewhat less than my heaviest year of use
- About the same as my heaviest year of use

15. Have you ever experienced withdrawal (e.g., shakes, nausea, trouble sleeping) illness when you stopped taking opiates?

- Yes
- No

If so, how often does this happen? [*Skip you haven't suffered withdrawal.*]

- On a daily basis
- On a weekly basis
- On a monthly basis
- On a yearly basis

16. Have you wanted to stop using opiates but had trouble doing so?

- Yes
- No

17. Does getting opiates occupy a large part of your time?

- Yes

No

18. Have you ever experienced health or psychological problems as a result of your use of opiates?

Yes

No

If you **have** had health or psychological problems, did you quit using opiates or cut down on your use as a result? [*Skip if you answered **no** to #17.*]

Yes

No

If you **haven't** had health or psychological problems, have you cut down on your use of opiates? [*Skip if you answered **yes** to #17.*]

Yes

No

19. Overall, the effects of opiates on my life have been:

0 1 2 3 4 5 6 7 8 9 10

Negative

Positive

20. What positive effects has opiates had on your life:

USE OF STIMULANTS (e.g., Amphetamines, Crystal Methadrine ("Ice"), etc.)

I have never used stimulants. Skip to: [NEXT SECTION]

NOTE: These questions were written with the assumption that you are currently using this drug. If you have quit using this drug, please answer the questions as if they were asking about your behavior when you were "using."

1. At what age did you first try stimulants?
2. At what age did you first become intoxicated by stimulants?
3. Have you used stimulants in the past year?

- Yes
- No

If you haven't used stimulants in the past year, how many years has it been since you used stimulants?

[*Note: 1.5 would mean one and one-half years.*]

4. Do you consider yourself to have permanently quit using stimulants?
 - Yes
 - No

5. When you do use stimulants, how much do you usually have, on the average? If you have quit, how much *did* you have on average?
We recognize that stimulants cover a wide range of drugs and methods of use. Please tell us, in your own words, how much you use(d)

6. How many times, on average, do you use stimulants? [Remember, if you have not used stimulants in the past year, what *was* your frequency of use?]
 - At least once a week
 - At least once a month
 - At least once a year
 - Less than once a year

7. When you do use stimulants, what is the level of intoxication that you usually reach?
 - Not at all intoxicated
 - Mildly intoxicated
 - Moderately intoxicated
 - Very intoxicated
 - Extremely intoxicated

8. How many times, on average, do you use stimulants and other drugs at the same time?
 - At least once a week
 - At least once a month
 - At least once a year
 - Less than once a year
 - Never

9. Has your use of stimulants ever caused or contributed to a failure in your education, work or family life -- such as failing a course, being fired, family problems, or a divorce?
 - Yes
 - No

10. Have you ever used stimulants under circumstances which might be dangerous, such as while driving a car or operating machinery?
- Yes
 - No

If you have used stimulants under dangerous circumstances, how often does this occur? [*Skip if you answered no to question #10.*]

- Less than once a year
 - Once a year
 - A few times a year
 - Once a month
 - A few times a month
 - Once a week
 - A few times a week
 - Daily
11. Have you ever had legal problems because of your use of stimulants?
- Yes
 - No
12. Have you had arguments with your family or friends about your use of stimulants?
- Yes
 - No
13. During the year that I most heavily used stimulants, I used them about:
- About the same as first year of use
 - Somewhat more than the first year of use
 - A lot more than the first year of use
14. This past year I used stimulants:
- Much less than my heaviest year of use
 - Somewhat less than my heaviest year of use
 - About the same as my heaviest year of use
 - More than my heaviest year of use
15. Have you ever experienced withdrawal (e.g., shakes, nausea, trouble sleeping) illness when you stopped taking stimulants?
- Yes
 - No

If so, how often does this happen? [*Skip if you haven't suffered withdrawal.*]

- On a daily basis
- On a weekly basis
- On a monthly basis
- On a yearly basis

Drug Survey

16. Have you wanted to stop using stimulants but had trouble doing so?
 Yes
 No
17. Does getting stimulants occupy a large part of your time?
 Yes
 No
18. Have you ever experienced health or psychological problems as a result of your use of stimulants?
 Yes
 No

If you **have** had health or psychological problems, did you quit using stimulants or cut down on your use as a result? [*Skip if you answered **no** to #17.*]

- Yes
 No

If you **haven't** had health or psychological problems, have you cut down on your use of stimulants? [*Skip if you answered **yes** to #17.*]

- Yes
 No

19. Overall, the effects of stimulants on my life have been:

0 1 2 3 4 5 6 7 8 9 10
 Negative Positive

20. What positive effects has stimulants had on your life:

Past Experiences

We'd like to know about any past encounters you've ever had with drug policy and enforcement. Tell us how drug use and law enforcement have affected your life.

1. Have you ever had legal problems because of your use of recreational drugs?
 Yes
 No

2. Have you ever been convicted of a drug-related (i.e. drug possession and/or trafficking) felony offense?
 Yes
 No

3. Have you ever been convicted of a non-drug (i.e. not drug possession and/or trafficking) felony offense in the United States?
 Yes
 No

4. Have you ever been convicted of a violent felony offense?
 Yes
 No

5. We would like you to briefly describe for us your problem experiences and your opinions and feelings about them.

6. Do you believe that the current drug laws and enforcement are effective in dealing with America's drug problem?

7. Would you support major drug reform which included strategies such as legalization and/or decriminalization of currently illegal drugs?
 Yes
 No

8. Is there anything else that you would like to tell the researchers about drugs and your experiences with them?

General Well Being

Now we would like to ask you some questions about how you have been feeling during the last month.

1. How have you been feeling in general?
 - In excellent spirits
 - In very good spirits
 - In good spirits
 - I have been up and down in spirits a lot
 - In low spirits mostly
 - In very low spirits

2. Have you been bothered by nervousness or your "nerves"? (During the past month)
 - Extremely so-to the point where I could not work or take care of things
 - Very much so
 - Quite a bit
 - Some--enough to bother me
 - A little
 - Not at all

3. Have you been in firm control of your behavior, thoughts, emotions or feelings? (During the past month)
 - Yes, definitely so
 - Yes, for the most part
 - Generally so
 - Not too well
 - No, and I am somewhat disturbed
 - No, and I am very disturbed

4. Have you felt so sad, discouraged, hopeless, or had so many problems that you wondered if anything was worthwhile? (During the past month)
 - Extremely so -- to the point I had just about given up
 - Very much so
 - Quite a bit
 - Some -- enough to bother me
 - A little bit
 - Not at all

5. Have you been under or felt you were under any strain, stress, or pressure? (During the past month)
 - Yes--almost to the point that I have just about given up
 - Yes--quite a bit of pressure
 - Yes--some - more than usual
 - Yes--some - but about usual
 - Yes--a little
 - Not at all

6. How happy, satisfied, or pleased have you been with your personal life? (During the past month)
- Extremely happy - could not have been more satisfied or pleased
 - Very happy
 - Fairly happy
 - Satisfied--pleased
 - Somewhat dissatisfied
 - Very Dissatisfied
7. Have you had any reason to wonder if you were losing your mind, or losing control over the way you act, talk, feel, think, or of your memory? (During the past month)
- Not at all
 - Only a little
 - Some--but not enough to be concerned or worried about
 - Some and I have been a little concerned
 - Some and I have been quite concerned
 - Yes, very much so and I am very concerned
8. Have you been anxious, worried, or upset? (During the past month)
- Extremely so -- to the point of being sick or almost sick
 - Very much so
 - Quite a bit
 - Some -- enough to bother me
 - A little bit
 - Not at all
9. Have you been waking up fresh and rested? (During the past month)
- Every day
 - Most every day
 - Fairly often
 - Less than half the time
 - Rarely
 - None of the time
10. Have you been bothered by any illness, bodily disorder, pains, or fears about your health? (During the past month)
- All the time
 - Most of the time
 - A good bit of the time
 - Some of the time
 - A little of the time
 - None of the time
11. Has your daily life been full of things that were interesting to you? (During the past month)

0 1 2 3 4 5 6 7 8 9 10
No energy at all, very energetic,
listless dynamic

18. How DEPRESSED or CHEERFUL have you been? (During the past month)

○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○
0 1 2 3 4 5 6 7 8 9 10
Very depressed Very cheerful

These final two questions are not about how you feel, but are to help us understand a bit more about the mechanics of our survey and also, how we can better target successful adults.

19. How did you find out about this survey?

20. How many minutes did it take to complete our survey?
[Note: 90 would mean one and one-half hours]

Submit

Comments to John B. White, Ph.D.,
john.white@wku.edu
Last updated Monday, June 09, 1997 12:52:26 PM

Copyright © 1996 by
Nicholson, Duncan, &
White

References

- Adalf, E.M., & Smart, R.G. (1985). Drug Use and Religious Affiliation, Feelings and Behavior. *British Journal of Addiction, 80*, 163-171.
- Anthony, J.C., & Helzer, J.E. (1991). *Syndrome of drug abuse and dependence*. New York : Mcmillan.
- Chappel, J.N. (2003). Spirituality and Recovery Process. *In Principles of Addiction Medicine (ASAM) Third Edition , Section 8 Chapter 3*, 969-974.
- Chitwood, D.D., Weiss, M. L., & Leukefeld, C. G. (2008). A Systemic Review of Recent Literature On Religiosity and Substance Use. *Journal of Drug Issues, 38*(3), 653-688.
- Clayton, R.R., Lindblad, R., Walden, K.P., Knight, F., Campbell, E., & Eldemire, D. (1988).
Drug use and drug abuse in Jamaica: the 1987 Jamaica national household survey. Sponsored by USAID and the National Council on Drug Abuse, Government of Jamaica, through the Pan America Health Organization.
- Cohen, A.Y. (1971). The Journey Beyond Trips: Alternatives to Drugs. *Journal of Psychodelic Drugs, 3*, 16-21.
- Crocq, M. (2007). Historical and cultural aspects of man's relationship with addictive drugs. *Dialogues Clin Neurosci, 9*, 355-361.
- Dohner, V.A. (1972). Motives for Drug Use: Adult and Adolescent. *Psychomatics, 13*, 317-24.
- Duncan, D., & Gold, R. (1982). *Drugs and the Whole Person*. New York: Arno Press.

- Duncan, D., White, J., and Nicholson, T. (2003). Using internet-based surveys to reach hidden populations: Case of nonabusive illicit drug users. *American Journal of Health Behavior, 27*, 208-218.
- George, L.K., Larson, D.B., Koeng, H.G., & McCullough, M.E. (2000). Spirituality and health: What we know, what we need to know. *Journal of Social and Clinical Psychology, 19*, 102-116.
- Galanter, M. (2006). Spirituality and Addiction: A Research and Clinical Perspective. *The American Journal of Addiction, 15*, 286-292.
- Gartner, J., Larson, D., & Allen, G.D. (1991) Religious Commitment and Mental Health: A review of emperical literature. *Journal of Psychology and Theology, 19*, 6-25.
- Gorsuch, R.L., & Butler, M. C. (1976) Initial drug abuse: A review of predisposing social psychological factors. *Psychological Bulletin, 83*(1), 120-137.
- Gove, P.B. (1993). *Webster's Third New International Dictionary of the English Language Unabridged*. Springfield, Massachusetts, USA: Merriam Webster Inc., Publishers.
- Grodzicki, J. (2005). Spirituality and Addiction. *Substance Abuse, 26*(2), 1-4.
- Heimann, R.K. (1960). *Tobacco and Americans*. New York: McGraw- Hill.
- Irwin, S. (1973). A rational approach to drug abuse prevention. *Contemporary Drug Problems, 2*, 3-46.
- Kass, J.D., Friedman, R., Laserman, J., Zuttermeister, P., & Benson, H. (1991). Health Outcomes and a New index of Spiritual Experience. *Journal for the Scientific Study of Religion, 30*(2), 203-211.

- Kendler, K.S., Liu, X.Q., Gardner, C.O., McCullough, M.E., Larson, D., & Prescott, C.A. (2003). Dimensions of Religiosity and Their Relationship to Lifetime Psychiatric and Substance Use Disorders. *American Journal of Psychiatry*, 160, 496-503.
- Koenig, H.G., McCollough, M.E., & Larson, D.B. (2001). *Handbook of Religion and Health*. New York: Oxford University Press.
- Larson, D.B., Swyers, J.P., & McCullough, M.E. (1997). *Scientific research on spirituality and health: A consensus report*. Rockville, MD: National Institute for Health Care Research.
- Ludwig, A. (1969). *Altered States of Consciousness*. (C. Tart, Ed.) New York: Wiley.
- Merrill, R.M., Salazar, R.D., & Gardner, N.W. (2001). Relationship Between Family Religiosity And Drug Use Behavior Among Youth. *Social Behavior and Personality*, 29(4), 347-358.
- Miller, W.R. (1998). Researching the spiritual dimensions of alcohol and other drug problems. *Addiction*, 93(7), 979-990.
- Musto, D.F. (1989). America's first cocaine epidemic. *The Wilson Quarterly*, Summer 13, 59-64.
- Nairn, D. (2008). *Drug use in ancient civilization*. History Today News.
- Nicholson, T. (1992). The primary prevention of illicit drug problems: An argument for decriminalization and legalization. *Journal of Primary Prevention*, 12(4), 275-288.
- Nicholson, T. (1996). DRUGNET study: The results of an internet survey on non-abusive drug consumption. Paper presented at the meeting of the *National Association for*

Public Health Policy and the American Public Health Association Annual Meeting. New York City, New York.

Nicholson, T., Duncan, D., & White, J.B. (1999). A survey of adult recreational drug use via the WWW: The DRUGNET study. *Journal of Psychoactive Drugs*, 31(4), 415-422.

Nicholson, T., Duncan, D., & White, J.B. (2002). Is recreational drug use normal?. *Journal of Substance Use*, 7, 116-123.

NIDA Notes, (2009). *United States Ranks First in Lifetime use of Three Drugs* (Vol. 22). Bethesda: NIH.

Office of Applied Studies. (2009, September). Results from the 2008 National Survey on Drug Use and Health: Findings. Retrieved February 16, 2010, from <http://www.oas.samhsa.gov/nsduh/2k8nsduh/2k8Results.cfm>

Paul, G.S. (2005). Cross-national correlations of quantifiable societal health with popular religiosity and secularism in the prosperous democracies: a first look. *Journal of Religion and Society*, 73, 22-27.

Peterson, E.A., & Nelson, K. (1987). How to Meet Your Client's Spiritual Needs. *Journal of Psychological Learning*, 25 (5), 34-39.

Pullen, L., Modrcin-Talbott, M.A., West, W.R., & Muenchen, R. (1999). Spiritual high vs. high on spirits: is religiosity related to adolescent and young adult trauma victims. *American Journal of Critical Care*, 4, 370-378.

Renue, J. (1997). *The General Well-being of Recreational Drug Users: A Sub-analysis of DRUGNET Survey* (Master's thesis).

- Sharma, M. (2006). Religiosity and Substance Abuse. *Journal of Alcohol and Drug Education*, 50 (1), 1-4.
- Snyder, S. (1970). What have we forgotten about pot. *New York Times Magazine*, 27, 121,124,130.
- Sussman, S., Skara, S., Rodriguez, Y., & Pokhrel P. (2006). Non- drug use and drug use specific spirituality as one - year predictors of drug use among hig- risk youth. *Substance Use and Misuse*, 41, 1801-1816.
- Stewart, G. (1967). A history of medical uses of tobacco. *Medical History*, 11, 228-68.
- The Influence of Religiosity and Spirituality on Health Risk Behaviors in Children and Adolescents*. (2006). Retrieved from <http://grants.nih.gov/grants/guide/pa-files/pa-07-181.html#PartI>
- The Holy Bible (New King James Version, p. 34-35) (1983) Thomas Nelson: Nashville, TN.
- U.S. Drug Enforcement Administration. (2007, August). Retrieved from <http://www.justice.gov/dea/concern/hydrocodone.html>
- Wakefield, G.S. (1988). *A Dictionary of Christian Spirituality*. London: SCM-Canterbury Press Ltd.
- Weil, A., & Rosen, W. (1993). *From Chocolate to Morphine: Everything You Need to Know about Mind-altering Drugs*. Boston: Houghton Mifflin.
- Weil A., & Rosen W. (2004). *From Chocolate to Morphine: Everything You Need to Know about Mind-altering Drugs*. Houghton Mifflin.

- World Health Organization. (1948). Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference. Retrieved from <http://www.who.int/about/definition/en/print.html/>
- Zimmerman, M.A., & Maton, K.I. (1992). Life-style and substance use among male African-American urban adolescents: A cluster analytic approach. *American Journal of Community Psychology*, 20(1), 121-138.