International Journal of Health Sciences
June 2014, Vol. 2, No. 2, pp. 35-47
ISSN: 2372-5060 (Print), 2372-5079 (Online)

Published by American Research Institute for Policy Development

Bases of Early Onset of Drugs in a Sample Population in Atlantic Canada

Edith Samuel[1]

Abstract

Drugs have posed to be an ongoing struggle for many young people in Canada today. This qualitative study of 14 drug users in a small town in Atlantic Canada exposes the bases and initiation of early drug use in adolescents. Using interviews, this qualitative inquiry focuses on dysfunctional family background, broken homes, parental alcoholism, and peer pressureas being the underlying factors leading to an early onset of drugs. The analysis further suggests that the age for the onset of drugs is declining. This alarming trend is unique and pioneering in this investigation. The study recommends an increased awareness of risk and protective factors to deter the occurrence of drug-use in family, school, and community.

Keywords: drugs, adolescents, early onset, qualitative, Atlantic Canada

Rationale

Drugs typically cause biochemical reactions in the body and drug addiction frequently is a continuing, compulsive, relapsing disorder that persists despite seriousharmful outcomes (Cami&Ferre, 2003; Heyman, 2009; Marhe, Waters, Wetering, & Franken, 2013; Schwabe, Dickinson, & Wolf, 2011). These addictive elements stimulateenjoyablefeelingsor relieve angstinitially but may soon turn into compulsive use. Sustaineddrug use could lead totolerance, physical dependence, desensitization,craving, and relapse.In the city where this study was done, the Drug Rehab Services (2012) relegatesdrug use to about .15% or 20, 000 peopleout of a population of about 137, 346.Indeed, this percentage represents a sizeable proportion of the city's population making illicit drug-taking behaviour aserious, and grim one.

[1] PhD, Crandall University, Moncton, New Brunswick, Canada. E-mail: Edith.Samuel@crandallu.ca

Drugs most commonly used by the sample of participantsin this study were marijuana, cocaine, narcotics and synthetic opiates, LSD and hallucinogens, and prescription drugs.

Questions that this study seeks to answer are: What triggers drug-taking behaviour? What role does family background play in the onset of drugs? At what age does drug-use begin and why? Being the first in the area, this inquiry looks specifically at family dysfunction, parental alcoholism, broken homes, and peer pressure leading to an early onset of drugs in Atlantic Canada.

Theoretical Framework

The social/environmental model, the gateway hypothesis, and the prototype/willingness models are pertinent to this inquiry. The social/environmental model emphasizes how distinct, and marked the impact of family dysfunction, and peer pressure can be on the development of addictions. Most drug users come from challenging families that are stressful, traumatic and disturbed (Chassin, Curran, Hussong, & Colder, 1996). Lack of parental support and control along with childhood distress are critical reasons as to why adolescents turn to drugs. These factors contribute to boundary ambiguities and rigidity of frontiers between family and social community (Stanton & Todd, 1982). In such situations, Haley's (1979) Perverse Triangle concept is applicable where family members are subject to an inverse proportion of intergenerational expectations creating severe hardships. Pathological conditionsbetween parents and children or between one parent and child against the other parent produce hidden glitchesconstituting a "perverse triangle." Likewise,the stress-strain-coping-support (SSCS) model (Orford, Copello, Velleman, & Templeton, 2010) attributes substance misuse to family dysfunction in relation to stressful life events. The symptomatic child could become the combat zone of family distress and tension propelling him or her toward drug-taking behaviour. Coping and support implies that such families seek positive social patronage from specialized sources.

The *gateway hypothesis*(Kandel, 2002) is attendant with three interrelated observations - first that there is a growth in the sequence of drug-use; second, that earlier use of drugs is largely associated with a later use; and third that drugs used earlier, such as alcohol or tobacco may be correlated with later marijuana, or other illicit drug-use (Karazsia, Crowther&Galioto, 2013; Lessum, Hopfer, Baberstick, Timberlake, Ehringer, Smolen et al., 2006). These three observations are considered to be causal factors of progression toward the use of illicit drugs in the future.

The *prototype/willingness model* (Gerrard, Gibbons, Brody, Murray, & Wills, 2006) underscores*reasoned path* and the *social reaction path* as being decisive in situating young adolescents' intentions and behaviour to risk-taking behaviour. Reasoned path signifies that some young people deliberately and purposelyresort to behaviour leading to early drug use. Based on the theory of reasoned action, the essential premise is that drug-taking behaviour is a conscious decision based on achieving a specific behavioural goal (Fishbein&Ajzen, 1995). Social reaction path refers to the *willingness,* or openness to precarious and hazardous behaviour. It is a reaction to a context or situation rather than behaviour that is planned or reasoned (Gibbons, Gerrard, Blanton, & Russell, 1998). Behavioural willingness is particularly responsive to the suggestion of peers or friends based on social image and identity (Erikson, 1950). Young adolescents frequently have the compelling desire to fit in, identify with their close friends, and feel accepted by them.

Methodology

Data was obtained from 14 in-depth, qualitative interviews conducted from October 2012 to December 2012 in a city in Atlantic Canada.

The Interview Method

The interviews consisted of a clear sequence of questions that were semi-directed, open-ended, and in-depth. The answers to the questions reflected on recent behaviour and enabled the researchers to discuss the issue of drug use copiouslywith the subjects.

The Interview Protocol

After going through the ethical review process that emphasized the sensitivity of the data and the size of the sample, approvals were acquired from Addictions Centre and Horizon Health in the city. Using the snowball technique(Goodman, 1961) names of prospective participantswere collected.The nature of the research project was then explained to potential respondents.

The Interview Sample

The sample of 14 participants accessible during the interview period,was composed of 7 men (M1 – M7) and 7 women (F1 – F7), signifying a gender balance. The participants ranged in age from 23 years to 43 years.At the time of the interviews, 1 participant (n=1) was currently residing in a residential treatment program, and 13 (n=13) were living on their own in the community and on their journey to recovery. Ten (n=10) held high school diplomas while 4 (n=4) were community college/university-educated. Out of the 14 (n=14) participants, 6 (n=6) were unemployed, 4 (n=4) were employed, 2 (n=2) were on disability assistance, 1 (n=1) was self-employed, and 1 (n=1) was a student. The majority of the participants (n=13) were Caucasian, while 1(n=1) participant was African Canadian.

The Interview Process

All interviews were conducted at either the agency (Harvest House or Addiction Services), or in the place that was most comfortable for the participant (parkor quiet restaurant). Topical questionswere asked in specific areas of interest. The first section of the interview consisted of biographic data such as age, marital status, number of children, place of employment, and level of education. This was followed by a group of specific questions on drug use during the life of the participant. This set of questions focused on the interviewee's background, reasons for initiating drug-use, and the age at which he/she was introduced to drugs. Interview data were initially coded based on key themes that emerged such as familybackground and the early onset to drug use.The interviews lasted for about two hours in length and were tape recorded, transcribed verbatim, and checked for accuracy.

Questions were worded in a simple manner and elaborated as the occasion arose. Many a time sub-questions were asked around the main question to draw out the necessary information.

All participants were provided consent formswhich they read with the interviewer. They were then asked if they fully understood what the process meant and if they were comfortable going ahead with the interview. All participants signed the consent form willingly and there were no drop-outs during the interview process. All respondents were reassured that the information they provided would be kept confidential.

Method of Analysis

Using the grounded theory approach (Glaser & Strauss, 1967), consistent themes were drawn from interview data. Grounded theory refers to a "a detailed grounding by systematically and intensively analysing data, often sentence by sentence, or phrase by phrase of the field notes, interviews, or other documents; by constant comparison, data are extensively collected and coded" (Strauss, 1987, p. 22). Transcribed interviews were coded, and variables were marked on the basis of age, gender, marital status, and occupation. Quotes that were forceful, persuasive, and convincing were highlighted and marked off for referencing. Lucid themes that emerged related to the participants' background such as dysfunctional family background, parental alcoholism, broken homes, peer pressureand the early onset of drugs. Data analysiswas conducted at two levels. First, analyzing the personal accounts of the participants – *what* was said, *how* it was said, and *why* it was said. Second, by applying psychological constructs and concepts to the personal accounts – to analyze *why* drug users endured those experiences in light of relevant studies, theories, assumptions, and premises.

Findings

Data was analyzed under the following emergent themes:

a) Dysfunctional family background
b) Parental alcoholism
c) Broken homes
d) Peer pressure
e) Early onset of drug use

a) Dysfunctional Family Background

All 14 participants (n=14) expressedthe view that they came from dysfunctional and stressful family backgrounds. Research indicates that the severity of childhood maltreatment and stressful life events increased the level of risk for adult psychopathology, specifically alcohol and drug use (Enoch, 2010;Frone, Cooper, & Russell, 1994; The National Child Traumatic Stress Network, 2008). Someof the participants said:

My childhood sucked...I was bounced around a lot. I did not have a good family home. I remember being put in foster homes at a young age....there were a lot of them. I remember I did not last long at any of them…no one wanted me. (M-4)

Childhood was rough. I had a bad relationship with my mother. I was sexually abused as a child by my neighbor.I was eight years old and that had a pretty large impact on things that transpired after that. It was simply awful; I just kept it in. (M-6)

We never had family suppers. I always had to do everything myself. I was never shown how to take care of myself. My mom was never really home. She worked a lot. My room had just the basic stuff. It was just not a warm homey environment. (F-4)

I do not remember a lot of positive memories. We grew up in rough neighbourhoods. When my parents divorced, I was really messed up. I did not get along with my step-dad. After that I would go between houses and do whatever I wanted. There was a lot of fighting. (F-6)

Developmental theorists corroborate a strong connection between family functionand child rearing. Early childhood experiences and environment influence many aspects of youth and later adult life.Dysfunctional families are correlated with childhood maltreatment and substance abuse (Kumpfer, Whiteside, & Greene, 2010).

Childhood maltreatment and later drug-related problems are interconnected conditions (Locke & Newcomb, 2003). Consistent with the social/environmental model, adverse family backgrounds often result in unstable outcomes propelling young people into drug-use (Miller-Perrin & Perrin, 1999).

b) Parental Alcoholism

Most (n=12) expressed the view that their parents were addicted to alcohol and that this resulted in a great deal of pain and stress in their lives. Some of them had this to say:

My biological father is an alcoholic, my step dad is an alcoholic and my mom is an alcoholic.She still drinks but keeps it to the weekends now. I hated to see my mom drunk.

Whenever she was drinking or would call me while she was drinking, I would have to hang up on her. I just could not talk to her. She would blame me for her problems and why she was going nowhere or she would put a guilt trip on me about how she tried to do everything for us and nothing made us happy.(F-6)

My dad had alcohol and drug problems but it was cause of him going through those hard times it would help me out the future with my problems. It also bothered me because I had seen my mom very sad. I did not think about it as a teenager…now it really bothers me to think back and remember how sad she was and the pain she felt. (F-5)

My dad is an alcoholic. He worked a lot of overtime when I was a kid. He was always working nights so I did not see much of him. When he drank he would get angry sometimes and yell at my mom. She has had to lock him out a few times I remember. I think it affected me because he was never around. (M-3)

Parental alcoholism has been linked to an early initiation of alcohol and drug use(Chassin, Curran, Hussong, & Colder, 1996). Research indicates that families in which one or both parents are drug users tend to provide unstable, unstructured, and chaotic home environments for their children (McKeganey, Barnard, & McIntosh, 2002).

c) Broken Homes

Many (n = 11) participants found themselves in broken homes and poignantly voiced the following comments:

I know when my parents separated when I was young I took it really hard. I was 12 when they separated for good. I started running away and did not want to be around anyone. (F-4)

I was bounced around a lot. I remember going into foster care at a young age....there were a lot of them. (M-4)

I was raised by my mom mainly. My dad left when I was 2. Only met once after that when I was 10. She had a boyfriend who I thought of as a step dad I guess.

I spent a lot of time at my nannies or taking care of my younger brother or sister. Someone had to take care of them (F-6)

I was tossed between my mom and dad. I was a mistake… my mom was told that my dad could never have kids and my mom did now want any more kids…then I came along. I went to live with my dad…living on welfare, low rental housing and not having anyone around. (F-1)

Divorce has been associated with substance use (Collins, Ellickson, & Klein, 2007) as children from broken families have poorer levels of mental and physical health and are more likely to resort to such problem behaviours. The above accounts highlight the notion that parental discord can fast-track adolescents to be placed under the supervision of the Child Protective Services in Canada (Lussier, Laventure, & Bertrand, 2010).

d) Peer Pressure

Many participants stated that peer pressure causedstress in their lives and influenced them to resort to drugs. Some of their comments were:

Everyone was doing it. My friends would all smoke weed afterschool and hang out. It was the norm.I thought there was nothing wrong with smoking a joint every now and then. (M-7)

My best friend introduced me to drugs…We were on a lunch break from school. We walked to his house for lunch and they were smoking a joint; so I had some too. (M-1)

Some of the kids in the neighbourhood were a bit older than I was. After school were would all hang out at a friend's or in the woods. They would always be smoking weed or hash. One day I tried it. Back then it was all fun and games. (F-6)

Why not me.Everyone was doing it. You were considered popular when you did drugs. Everyone was smoking pot. When you went outside at recess everyone went to the back of the school and smoked a joint. It made the day go by quicker.

It was something to do hanging out with the boys. It felt better to be high than be straight.(M-3)

Peer group interaction, the core of adolescent life, can have a detrimental, and unfavourable effect on adolescents who experiment with drugs. Adolescents typically spend more time with their friends in an atmosphere of fun, enjoyment, and unrealistic expectations. Deviant friends predictably transfer negative attitudes and values leading to risk-taking behaviour (Copeland & Martin, 2004; Hussong, 2002; Oetting& Beauvais, 1986; Thorlindsson&Bernburg, 2006).

e) Early Onset of Addiction

In this study, all respondents (n=14) endured the onset of drugs; however, it is interesting to note that most respondents (n=11) resorted to taking drugs at an even younger age thanthe 15 – 24 years reported by Health Canada (2013).*In this study, it wasbetween 8-14 years, a significantand meaningful indicator that is unique.*This could be attributed to the early onset of puberty due to the excessive consumption of processed foods, some of which are genetically modified, and the easy availability of drugs. A few participants stated:

I was between 8-9 (when) I started smoking weed and hash. (M-4)
I was 10 years old....It was offered to me one day. (M-6)

I was 11 when I first started using drugs like hash and weed. Everything escalated from there. (F-4)

I was about 12, it was grade 7. My first drug was acid.(M-7)

The first time I started experimenting with drugs I was around 12, it was weed. (F-5)

It was my 13th birthday and I did acid. (F-2)

I was 14, it was weed. (M-1)

Curiosity and boredom wereother crucial factors as to why participants first startedexperimenting with drugs.

I first tried caused mainly for curiosity. I never thought I would get addicted. I thought I always had it under control. (M-7)

I was curious.....however I had a lot on my mind - a lot of stuff I did not want to deal with. (F-7)

I think boredom played a role in experimenting with drugs as well. There was nothing for us to do. I did not see any harm in experimenting with drugs at the time. (M-3)

Inquisitiveness, monotony, and tedium have been cited as reasons for drug-taking behaviour (Levy, O'Grady, Wish, &Arria, 2005). Friends talk about the experience and young people are nosey, and inquiring to find out what it is like to be under the influence of drugs. Young people commonly want to experience something novel, and unusual to keep themselves engaged.When subjects in this study were asked what their first drug of choice was, some of their responses were:

Weed was my first drug I tried. (M-1)

The first drug I used was weed...who wasn't smoking weed? (F-6)
My first drug experience was weed and hash. (M-6)
The first drug I tried was weed…I felt so sick. I was spinning. (F-7)

Marijuana is commonly the most widely used illicit drug on the market (DeSimone, 1998; Lessem, et al., 2006). Though marijuana is still an illicit drug in Canada and produces a psychedelic-like effect more complicated than alcohol, cocaine and prescriptionmedication, research has yet to prove the extent to which smoking marijuana produces negative consequences (Fergusson &Horwood, 2000). The primary cause for concern when it comes to marijuana consumption is that it can potentially lead to the use of more dangerous drugs such as cocaine, heroin, and prescription painkillers, compliant with the gateway hypothesis. Smoking marijuana for the first time can be the start of a drug addiction that will affect the person's entire life.It is therefore evident that the use of cannabis encourages individuals to experiment with and use other illicit drugs, making policies regarding the legalization of marijuana controversial.

Implications and Conclusion

FollowingDowning &Bellis'(2009) US study on early puberty and substance use,a similar, yet uniquefinding in this investigation is that drug-use started between the early ages of 8 to 14 for most participants.This is contrary toHealth Canada's (2013) statistic of drug onset which is between 15-24 years. Being the first study in the geographical area, the bases for this trend are dysfunctional families, parental alcoholism, broken homes, and peer pressure as depicted in this study. Other reasons could be early puberty onset (Science Daily, 2013)due togenetically modifiedand processed foods, a sexualized culture, media influences, and the easy availability of drugs.

Regarding limitations of the study, most of the participants were Caucasian which restricted the analysis to one ethnic group. Even though the qualitative methodology represents profound accounts that are reflective in nature, there may have beenconstraints regarding using personal accounts, oral histories or life stories, and in-depth interviews.Furthermore, the experiences of participants in Atlantic Canada may not be the same as those in other parts of Canada.

This study focused on voices of participants to gain an all-inclusive understanding of the early onset of drug-taking behaviour. However, it was felt that the data collected from the various participants were sufficient to conduct a valid and reliableanalysis.

It is important to realize that dysfunctional families elicit and initiate drug-taking behaviour and that there is clearly a trend for drug-use to start at an *earlier* age among adolescentsin Atlantic Canada. To combat this trend, risk and protective factors are decisive (Levinthal, 2014). Risk factors such asantisocial behaviour, incidence of marijuana use in school, individual mind-sets toward marijuana, and friends' attitudes towards illicit drugs need to be taken seriously.As well, protective factors such as sanctions against substance use in school, parental support, dedication to school and academic work, religion, and extracurricular activities need to befortified. Whenboth risk and protective factors are invigorated,there is a highprobability of a diminution in drug-use amongadolescents (Cobriales, Cooper & Taylor, 2013).

References

Cami, J. &Ferre, M. (2003).Drug addiction. The New England Journal of Medicine, 349(10), 975-986.

Carroll, M. E. (2000). Quantification of reinforcing effectiveness: comment on Meisch. Experimental ad Clinical Psychopharmacology, 8(3), 352-354.

Chassin, L., Curran, P. J., Hussong, A, M. &Colder, C. R. (1996). The relations of parent alcoholism to adolescent substance use: A longitudinal follow-up study. Journal of Abnormal Psychology, 105, 70-80.

Cobriales, J. A., Cooper, T.V., & Taylor, T. (2013). Prescription drug misuse, illicit drug use, and their potential risk and protective correlates in a Hispanic College student sample. Experimental and Clinical Psychopharmacology, 21(3), 235-244.

Collins, R. L., Ellickson, P. L., & Klein, D. J. (2007). The role of substance use in young adult divorce. Addiction, 102, 786-794.

Copeland J.,& Martin G. (2004). Web-based interventions for substance use disorders. Journal of Substance Abuse Treatment.26(2), 109–116.

DeSimone, J. (1998). Is Marijuana A Gateway Drug?EasternEconomic Journal, 24(2), 149-164.

Downing, J., and Bellis, M.A. (2009).Early pubertal onset and its relationship with sexual risk taking, substance use and anti-social behaviour: a preliminary cross-sectional study. BMC Public Health,9, 446.

Early onset of puberty, (2013).Science Daily. http://www.sciencedaily.com/releases/2013/01/130129130947.htm

Enoch, M. (2010). The role of early life stress as a predictor for alcohol and drug dependence. Journal of Psychopharmacology, 214, 17-31.

Erikson, E. H. (1950). Childhood and society.New York: Norton.

Fergusson, M. D., and Horwood, J. L. (2000). Does cannabis use encourage other forms of illicitdrug use? Society for the Study of Addiction to Alcohol and Other Drugs, 95(4), 505-520.

Fishbein, M.&Ajzen, I. (1995).Belief, attitude, intention, and behaviour: An introduction to theory and research. Reading, MA: Addison-Wesley.

Frone, R. M., Cooper, L. M.& Russell, M. (1994). Stressful life events, gender, and substance use: An application of tobitregression.,Psychology of Addictive Behaviors, 8(2), 59-69.

Glaser, B. G. & Strauss, A. L.(1967).The Discovery of Grounded Theory: Strategies for Qualitative Research, Chicago: Aldine.

Gerrard, M., Gibbons, F., Brody, G. H., Cleveland, M. J. & Wills, T. A. (2006). A theory-based dual-focus alcohol intervention for preadolescents: The Strong African American Families Program, Psychology of Addictive Behaviours, 20(2), 185-195.

Gibbons, R. X., Gerrard, M., Blanton, H., & Russell, D. W. (1998). Reasoned action and social reaction: Willingness and intention as independent predictors of health risk: Journal of Personality and Social Psychology, 74, 1164-1181.

Goodman, L.A. (1961). Snowball sampling.Annals of Mathematical Statistics32(1), 148 170.

Haley, J. (1979). Nouvelles Strategies en TherapieFamiliale.Paris: Jean Pierre Delarge.

Health Canada (2013). Health concerns.http://www.hc-sc.gc.ca/hc-, ps/index-eng.php

Heyman, M. G. (2009). Addiction: A disorder of choice, Harvard: Harvard University Press.

Hussong, A. M. (2002) Differentiating peer contexts and risk for adolescent substance use. Journal of Youth Adolescence. 31(3), 207-220.

Karazsia, B. T., Crowther, J. H., &Galioto, R. (2013). Undergraduate men's use of performance-and appearance-enhancing substances: An examination of the Gateway Hypothesis. Psychology of Men & Masculinity, 14(2), 129-137.

Kandel, D. (2002). Stages and pathways of drug involvement: Examining the Gateway Hypothesis. New York, NY: Cambridge University Press.

Kumpfer, K. L., Whiteside, H. O., & Greene, J. A. (2010). Effectiveness outcomes of four age versions of the strengthening families program in statewide field sites, Group Dynamics: Theory, Research, and Practice, 14(3), 211-229.

Lessem, M. J., Hopfer, J.C., Baberstick, C. B., Timberlake, D., Ehringer, A. M., Smolen, A., & Hewitt, K. J., (2006). Relationship between adolescent marijuana use and Young adult illicit drug use.Journal of Behavior Genetics, 36(4), 498-506.

Levinthal, C. (2014). Drugs, behaviour and modern society: (6thedition). Boston: Pearson Education Inc.

Levy, K. B., O'Grady, K. E., Wish, E. D. &Arria, A. M. (2005). An in-depth qualitative examination of the ecstasy experience: Results of a focus-group with ecstasy-using college students. Substance Use & Misuse, 40, 1427-1441.

Locke, T. F. & Newcomb, M. D. (2003). Childhood maltreatment, parental alcohol/drug-related problems, and global parental dysfunction, Professional Psychology, Research and Practice, 34(1), 73-79.

Lussier, K., Laventure, M., & Bertrand, K. (2010). Parenting ad maternal substance addiction: Factors affecting utilization of child protective services. Substance Use & Misuse, 45, 1572-1588.

Marhe, R., Waters, A.J., Wetering, B.J.M., & Franken, I. H. A. (2013). Implicit and explicit drug-related cognitions during detoxification treatment are associated with drug relapse: An ecological momentary assessment study. Journal of Consulting and Clinical Psychology, 81(1), 1-12.

McKeganey, N., Barnard, M. &McIntosh, J. (2002). Paying the Price for their Parents' Addiction: meeting the needs of the children of drug - using parents. Drugs: Education,Prevention and Policy, 9(3), 233-246.

Miller-Perrin, C. L., & Perrin, R. D. (1999).Child maltreatment: An introduction. Newbury Park, CA: Sage.

Oetting, E. R. and Beauvais, F. (1986). Peer cluster theory: Drugs and the adolescent. Journal of Consultation and Development 65, 17-22.

Oxford, J., Coppell, A., Velleman, R., & Templeton, L. (2010). Family members affected by a close relative's addiction: The stress-strain-coping-support model. Drugs: Education, Prevention, and Policy, 17, SI, 36-43.

Schwabe, L., & Dickinson, A., & Wolf, T. O. (2011). Stress, Habits, and Drug Addiction: A Psychoneuroendocrinological Perspective. Experimental and Clinical Psychopharmacology, 19(1), 53-63.

Strauss, A. L. (1987). Qualitative analysis for social scientists. Cambridge, UK: Cambridge University Press.

Stanton, M. D. & Todd, T. (1982).The family therapy of drug abuse and addiction.New York: Guilford Press.

The Drug RehabServices.(2012). drugrehab.ca/Moncton.html.

The National Child Traumatic Stress Network, (2008).Making the Connection: Trauma and Child Abuse.http://www.nctsnet.org/nctsn_assets/pdfs/SAToolkit_1.pdf

Thorlindsson, T. &Bernburg. J. G (2006). Peer groups and substance use: examining the direct and interactive effect of leisure activity.Adolescence, 41(162), 321-39.