

**THE EFFECT OF PEER PRESSURE AND LEISURE
BOREDOM ON SUBSTANCE USE AMONG
ADOLESCENTS IN LOW-INCOME COMMUNITIES IN
CAPE TOWN.**

**A mini-thesis submitted in partial fulfilment of the requirements for
the degree of M. A. (Research) Psychology in the Department of Psychology,**

The logo of the University of the Western Cape, featuring a classical building facade with columns and a pediment, overlaid with the text 'UNIVERSITY of the WESTERN CAPE' in a serif font.

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ABSTRACT

The adolescence period is a time of high risk for health and social problems such as substance use globally and in South Africa. Past research has shown that there is a need to investigate factors such as peer pressure, leisure boredom and substance use as they pose a threat to the social, psychological and physical wellbeing of adolescents in general. Thus, the overall aim of the study is to determine whether peer pressure and leisure boredom influence substance use among adolescents in low-income communities in Cape Town. Accordingly, the current study is guided by the theoretical framework of Jessor's problem-behaviour theory. This exploratory study employed a correlational research design. The measurement tools included the Drug Use Disorders Identification Test, the Resistance to Peer Influence measure and the Leisure Boredom Scale. Non-probability sampling was used to select 296 adolescents between the ages 16 – 18 years from schools located in two low-income communities. Data analysis techniques included descriptive statistics, t-test, linear regression and multiple regression. Linear regression revealed that leisure boredom is not a significant predictor of substance use whereas peer pressure is a significant predictor of substance use. Multiple regression showed that the combined influence of peer pressure and leisure boredom predicted substance use, while peer pressure emerged as a stronger predictor than leisure boredom of substance use among adolescents. Gender did not moderate the relationship between peer pressure, leisure boredom and substance use among adolescents.

DECLARATION

The author hereby declares that the following final research report, “The effect of peer pressure and leisure boredom on substance use among adolescents in low-income communities in Cape Town” is her own work and all the sources she has used or quoted have been indicated and acknowledged by means of complete references.

Gaironeesa Hendricks

February 2015

Signed:



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INTRODUCTION

Both international and national trends present substance use as a major social problem among adolescents. The United Nations Office on Drugs and Crime (2012) reported alcohol as the most common substance abused with a rate of 42%, followed by cannabis with a rate of 5%, heroin and cocaine with rates of 0.4 % and 0.5% respectively. In South Africa, substance use among adolescents is a major public health concern (Dada et al., 2012; Plüddemann & Parry, 2012; Resnicow, Omardien, & Kambaran, 2007; Stein et al., 2008; Wechsberg et al., 2008) with statistics showing that 49.6% of school-going adolescents used alcohol, followed by cannabis (12.8%), heroin (11.2%), cocaine (6.4%) and mandrax (6%) (Reddy et al., 2010). A recent report published by the South African Community Epidemiology Network on Drug Use (SACENDU) reported that patients admitted to treatment centres in the Western Cape under the age 20 had a cannabis use rate of 70%, followed by methamphetamine use rate of 16%, alcohol use with a rate of 4%, heroin use with a rate of 3% while cocaine use maintained a rate of less than 1% (SACENDU, 2013). This indicated that the proportions of patients under the age of twenty years are highly vulnerable to substance use.

Substance use is defined as the use of a substance at some time in one's life without the individual developing a specific recurrent pattern (Edmonds & Wilcocks, 2001). A number of factors are consistently found to be related to substance use among adolescents including the community, school environment, peer, family and personal factors (Brook, Morojele, Pahl, & Brook, 2006; Morojele, 2009; Russel et al., 2008). Some common reasons for substance use include distance from school, lack of social support from the parent or caregivers, psychological and emotional neglect (Grobler & Khatite, 2012; Ward, 2007; Westling, Andrews, Hampson, & Peterson, 2008). Beyond this, broader economic difficulties experienced by communities due to scarce resources and lack of leisure activities are further associated with problematic behaviours (Godbey, 2009; Wegner, Flisher, Caldwell, Vergnani, & Smith, 2008). Empirical research has shown an increase in risk factors, such as peer pressure (Allen et al., 2012) and leisure boredom (Wegner, Flisher, Lombard, & Muller, 2006) as key factors in understanding substance use among adolescents

Although research suggests that 'peer influence' manifests itself in both positive and negative behaviours (Padilla-Walker & Bean, 2009), for the purpose of this paper, negative

influences will be discussed. Peer pressure is formulated as a subjective experience of feeling pressured, urged or dared by others to do certain things (Santor, Messervey, & Kusumaker, 2000; Westling et al., 2008). Although the term 'peer pressure' has been conceptualized numerous times, one of the earlier theorists namely Erik Erikson argues that adolescents attain a sense of belonging from their peers while simultaneously searching for and forming an identity (Erikson, 1968). Research has further suggested that peer pressure provides a context for adolescents to explore substance use (see, Brown, Clasen, & Eicher, 1986; Lundborg, 2006; Santor et al., 2000).

Beyond peer pressure, 'leisure' refers to the purposeful and intentional use of free time to engage in self-selected activities that are meaningful and intrinsically motivating to the person (Unger, 1983; World Youth Report, 2003). Boredom is a trait that has been described in the literature as a negative, dissatisfying and emotional state (Mikulas & Vodanovich, 1993). Leisure boredom is defined as the "subjective perception that available leisure experiences are not sufficient to instrumentally satisfy needs for optimal arousal" (Iso-Ahola & Weissinger, 1990, p. 4). Caldwell (2008) found that leisure boredom compromises the reason adolescents engage in leisure activities, being that they want to, or because they have nothing to do. This study depicts that boredom is a state of relatively low arousal and displeasure which is predicted by a highly inadequate environment.

While peer pressure and leisure boredom have been found to be related to substance use, there is a lack of information in low-income communities (Grobler & Khatite, 2012; Wegner, 2011). The fact that there is a great concern regarding peer pressure for adolescents living in disadvantaged communities, Grobler and Khatite (2012) argued that there is a need for interventions regarding the handling of peer pressure. Moreover, literature has shown that there is an absence of information regarding leisure boredom and its influence on risky behaviours in disadvantaged communities (Palen et al., 2010; Wegner, 2011; Wegner et al., 2006). Sharp et al. (2011) suggested that future research should explore the mechanisms of peer pressure that may link leisure experiences to substance use. In addition, further research is needed regarding the moderating role of gender and information on whether gender differences occur regarding substance use (Andrews, Tildesley, Hops, & Li, 2002; Denault et al., 2012; Moodley, Matjila, & Moosa, 2012). Sharp et al. (2011) argued that generally more information should be acquired in

disadvantaged communities since these are one of the most vulnerable settings for substance use. To grasp the complexity of the growing predicament of substance use, a full understanding of the factors, such as peer pressure and leisure boredom, is necessary especially in disadvantaged communities.

Aim and objectives

The overall aim of the study is to assess whether peer pressure and leisure boredom influence substance use among adolescents in low-income contexts. The following objectives have been developed to guide this study:

1. To determine whether peer pressure is a significant predictor of substance use among adolescents.
2. To determine whether leisure boredom is a significant predictor of substance use among adolescents.
3. To determine the combined influence of peer pressure and leisure boredom on substance use among adolescents.
4. To determine whether peer pressure is a stronger predictor of substance use among adolescents than leisure boredom.
5. To determine whether gender is a significant moderator in the relationship between peer pressure, leisure boredom and substance use among adolescents.

Hypothesis

On the basis of the above mentioned, the hypotheses include the following:

1. Peer pressure is a significant predictor of substance use among adolescents.
2. Leisure boredom is a significant predictor of substance use among adolescents.
3. The combined effect of peer pressure and leisure boredom is a significant predictor of substance use among adolescents.
4. Peer pressure is a stronger predictor of substance use among adolescents than leisure boredom.
5. Gender is a significant moderator in the relationship between peer pressure, leisure boredom and substance use among adolescents.

Adolescent substance use

Considering the body of literature, a significant amount of research showed that substance use is a growing concern among adolescents (Kroutil, Colliver, & Gfroer, 2010; Ramirez et al., 2011; Reddy, Resnicow, Omardien, & Kambaran, 2007). A study conducted in the United States by Kroutil, Colliver, Gfroerer (2010) examined the cohort differences of cigarettes, alcohol and marijuana use among adolescents between the ages 12 and 17. Using logistic regression analysis, they found that cigarettes, alcohol and cannabis increased as adolescents grew older. They further corroborated that in all the age cohorts, at least 40% of adolescents had tried a cigarette, more than 60% had tried alcohol and one third of adolescents had tried cannabis by the age of 17. Furthermore, in a comparison of South African and American youth, using two nationally representative surveys of high school students, Reddy et al. (2007) found lower rates of alcohol and cannabis use among South African adolescents, but higher rates of hard drugs among South Africans than United States adolescents. Additionally, a recent report published by the Medical Research Council (MRC) noted that patients admitted to treatment centers in the Western Cape under the age of 20 had a cannabis use rate of 58%, followed by methamphetamine use with a rate of 24%, alcohol use with a rate of 5% while heroin use maintain a rate of 7% (Dada et al., 2012).

The current generation of adolescents encounters many challenges that place them at risk of their health and wellbeing. According to Shefer (2008), the adolescence phase refers a human development stage that follows middle childhood and functions as the transition from childhood to adulthood. Fallu, Brière, Vitaro, Cantin, and Borge (2011) showed that adolescents start using substances from the ages 10 – 11 years through ages 14 – 15 years. Thus, the age of initiation of persons using substances such as alcohol ranges between 10 – 12 years old, dagga 11 – 12 years and harder drugs such as methamphetamine, cocaine and heroin between 16 – 18 years (Ramlagan, Peltzer, & Maseki, 2010). They further concluded that positive support, improved socio-economic conditions and positive peer influence decrease substance use rates.

Generally, adolescence is a vulnerable period for risky behaviours such as substance use, which is more prevalent at certain developmental stages (Randolph, 2004). Randolph (2004) reported that the change in substance use patterns during the adolescence phase is dependent on the type of drug they use. This shift is also evident in a South African study by Visser and

Routledge (2007) who proposed that adolescents who started using less harmful substances at an early age are more likely to turn to harder drugs than those who start later in life.

Peer pressure and substance use

A significant body of research has focused on the associations between peer pressure and substance use. For example, Simons-Morton and Chen (2006) argued that the relationship between peer pressure and adolescent substance use is not fully understood. They further report that although the association between substance use and peer pressure is highly correlated, the progression of adolescent substance use is significant from grade 7 to grade 8. Simons-Morton and Chen (2006) contend that peer influence is often a combination of both socialisation and selection. They argued that aspects of socialization played a bigger role than the selection of peers in the relationship between peer pressure and substance use (Simons-Morton & Chen, 2006). In other words, they found that socialising with friends accounted for an increase in substance use and it was concluded that when peers pressured their friends, they were more likely to use substances. Moreover, Urberg, Pilgrim, and Degirmencioglu (2003) reported that adolescents, who chose substance-using peers and who valued acceptance from peers, were more likely to conform to peer pressure, and those who valued school and parents were less likely to be influenced. Lundborg (2006) corroborated that belonging to a peer group requires conformity toward other peers, and for many adolescents, activities involving substance use may be efforts to do so. Although the peer group maintains an important developmental cornerstone among adolescents, it may also lead to sources of risky behaviours such as substance use (Simons-Morton & Chen, 2006; Westling et al., 2008).

Piehler, Véronneau, and Dishion (2012) investigated the measurement of substance use and peer influence to predict escalations to early-adult tobacco, alcohol and marijuana use of a sample of 998 ethnically diverse adolescents. Using structural equation modelling, they revealed that adolescent substance use and peer substance use highly correlate and together are robust predictors of a problematic pattern of the usage for all substances in early adulthood. They further state that their findings highlighted the importance of addressing adolescent self-regulation in interventions aimed at treating and preventing early-adult substance abuse (Piehler et al., 2012).

According to South African research by Peltzer, Ramlagan, Mohlala, and Matseke (2007), most individuals start using illicit drugs with friends. Using a mixed methods approach, they reported that 43% of friends, 21% of school mates and 7% of family members abused substances. They further suggested that an equally important challenge is the high prevalence rates of adolescent substance use in South Africa (Peltzer et al., 2007). When conducting focus group sessions, adolescents were asked what would encourage them to stop using substances. They reported that constructive change in factors such as family care and support, socio-economic conditions and law enforcement would prevent them from using substances. It was further evident from this research that adolescents were more likely to start using substances through peers. In a study to determine whether the use of tobacco, alcohol and other illicit drugs predicted dropout among adolescents in Cape Town, peer influence was identified as a contributory factor (Flisher, Lombard, & King, 2010). They proposed that older students coming from a lower grade were more likely to drop out of school than peers who came from a higher grade, indicating that peer influence played a role. Factors such as poverty and unemployment played an important role in substance use as well (Flisher et al., 2010).

A study carried out by Ramirez et al. (2011) aimed at examining the roles the family environment and peer networks play in abstinence from alcohol and other substances over a year. In a survey of 419 adolescents between 13 – 18 years, they found that peer networks influenced substance use; and when fewer friends used substances, individuals were less likely to use substances. Using logistic regression, they examined the characteristics predicting one year abstinence and predicting having fewer than four substance using friends. Adolescents with fewer substance using friends were more likely to abstain than those with four or more substance using friends. In other words, they established that less interaction with peers and having less than four friends using substances predicts abstinence for a year. Nonetheless, Allen et al. (2012) reported that a weak autonomy by families is associated with weak social skills in handling matters with peers. They propose that adolescents who are more liked by peers, have difficulty managing peer related issues and are more likely to use substances.

Notwithstanding the various demands of peers, a study by Lai et al. (2013) examined factors associated with substance use and delinquency among South African adolescents. Although an association exists between substance use and delinquency, they found that

delinquent peers pressured one another into using methamphetamine and inhalants. They concluded that adolescents, who easily accepted delinquent peers, were more prone to using harder drugs. Although there are many reports that specify the relationship between peer-related matters and substance use among adolescents, there remains a paucity of research regarding other factors such as leisure boredom in South Africa.

Leisure boredom and substance use

While leisure time through meaning-making can potentially lead to better quality of life, positive emotions and a sense of self-esteem have also been associated with risky behaviours (Iwasaki, 2007). In a qualitative study regarding leisure boredom and risky behaviour, Wegner (2011) found that leisure boredom has been linked to risky behaviours in South Africa. It was found that leisure boredom is seen as dangerous as it may lead to peer pressure or even substance use. Nonetheless, race, socio-economic status and leisure boredom have been identified as strong predictors of substance use in a South African context (Wegner et al., 2006).

Literature suggests that the influence of leisure activities plays a vital role in adolescent substance use. In a study that explored school-based participation in leisure activities, Darling, Caldwell, and Smith (2005) found lower substance use among adolescents who are involved in additional extra-mural activities, with boredom negatively influencing adolescent development. They further put forward that those who participated in non-sport extra-curricular activities reported consistently better adjustment than those who did not participate in these activities. If adolescents lack leisure skills or are constrained from participating in leisure activities, boredom results, and this may lead to substance use. Nonetheless, there is a lack of information regarding leisure activities, leisure boredom and, in particular, the development of risky behaviours among adolescents (Darling et al., 2005).

This dearth of empirical literature was corroborated by Wegner and Flisher (2009) in a systematic review of literature concerning available information on leisure boredom and risky behaviours among adolescents. This included both an online and hand search resulting in the retrieval of 25 articles, most of which was conducted in the developed world, with 16 from USA, 2 from Canada, 3 from Australia and only 4 studies from the developing world. They further argued that studies regarding substance use and leisure boredom are found to be particularly

limited, with only one study found in the developing world. In this regard, they suggested that more research regarding leisure boredom and substance use is needed in the developing world.

In the context of South Africa, a study conducted by Caldwell et al. (2004) aimed to produce a Health Wise Project to reduce risky behaviours such as substance use and leisure boredom. This research aimed to produce a curriculum that includes positive use of free time among Black and Coloured¹ youth, who are primarily affected by the consequence of apartheid. Positive results of the pilot study indicated that the learners and teachers felt that the activities were covered well. Because many poor communities are close-knit, parenting is usually dependent on the social support of the neighbourhood (Ward et al., 2012). Ward et al. (2012) report that in these communities, the better the interactions and relationships in the neighbourhood, the better the support they give one another.

Literature involving substance use and leisure boredom seems contradictory at times, but this link remains relevant, especially in the context of low-income communities in South Africa. For example, Wegner (2011) conducted a qualitative study investigating adolescents' perceptions of leisure boredom and risk behaviour among African and Coloured adolescents living in a socially impoverished area of South Africa. She found that the opportunities to become involved in healthy leisure activities were restricted by the lack of leisure resources within the environment. In other words, young people often spend their time sitting around in groups outside and on the streets, and 'hang out' because they have nothing else to do. The greatest limitation of this study was the difficulty found in recruiting participants who had dropped out of school. Many of these adolescents were suspicious of the researcher's motives or were not interested in taking part because they did not feel it suggested a lack of motivation. Furthermore, Wegner (2011) argued that potential research could focus on factors such as levels of boredom and use of time regarding risky behaviours among adolescents.

Moreover, in a study to determine the association between leisure boredom and substance use, Wegner et al. (2006) reported that African and Coloured students experienced higher leisure boredom than Whites in South Africa. This study further indicated that leisure boredom is more prominent among females and younger individuals. Along with this, they proposed that leisure

¹ The terms 'Black and 'Coloured were employed as racial categories within the Apartheid era to reinforce a segregated society, and refer to those who were oppressed, disenfranchised and denied access to resources.

and recreational activities are usually unavailable in poor communities with more pressing issues such as unemployment and poverty; families may think of it as not important. Furthermore, they reported that high levels of leisure boredom experienced by racial groups are dated back to the apartheid system of racial discrimination and inequality which left African people living in impoverished environments.

In a qualitative study, Palen et al. (2010) explored the constraints of adolescent leisure experiences in a low socio-economic context in South Africa. They found that intrapersonal, interpersonal, structural and socio-cultural constraints were all briefly identified. Results from focus groups showed that interpersonal constraints, such as being disinterested in taking part in leisure activities, were a result of boredom, and parents were a potential reason for leading to this constraint. They further found that the influence of interpersonal constraints, such as parents restricting children from taking part in leisure activities, was shown to hamper adolescent development. A limitation of the study was that participants who were proficient in English were allowed to participate, while those who were not were excluded from the study.

Sharp et al. (2011) undertook a study which aimed at predicting changes in leisure experiences and substance use in a low resource community. In other words, they aimed to describe the developmental trends in three specific leisure experiences namely, leisure boredom, new leisure interests and healthy leisure with regards to substances such as cigarettes, alcohol and marijuana. Seven waves of data were collected twice a year from the 8th through the 11th grades in Cape Town schools, South Africa. They intended to investigate the ways in which changes in leisure experiences predict changes in substance use behaviours over time. They found that leisure experiences predicted substance use and that changes in leisure experiences predicted changes in substance use. They showed that substance use behaviours changed over time, with leisure boredom emerging as the most consistent and strongest predictor of alcohol, cigarette and marijuana use. The same study found that adolescents using substances such as alcohol, cigarettes and marijuana over a 4 week period predicts changes in adolescents' subjective experiences of leisure boredom, and when boredom increased substance use increased (Sharp et al., 2011).

A study by Caldwell and Darling (1999) determined the importance of peer influences, personal characteristics, parental control and substance use on the leisure choices of adolescents in the United States. Using an ecological model, they found that adolescents who spent more time socialising are at heightened risk for substance use, but only if they reported themselves open to peer influence. Additionally, it was found that adolescents who spent more time socialising, who valued their friends more and who experienced low levels of parental monitoring had a greater chance of using substances. Thus, peer-related factors moderated the effect on the relationship between substance use and leisure choices. Although a considerable amount of research has focused on peer pressure and substance use, and some research has focused on the relationship between leisure boredom and substance use, no studies in South Africa have focused on the combination of the two factors and their effect on substance use. This study will attempt to address the gap in literature by focusing on peer pressure, leisure boredom and their influence on substance use.

Gender and substance use

Generally, substance use is faced by both males and females. However, a number of studies have demonstrated that the prevalence rates of adolescent substance use are consistently higher among males than among females (Cotto et al., 2010; Kim, Catalano, Haggerty, & Abbott, 2011; Shannon, Havens, Oser, Crosby, & Leukefeld, 2011). For example, Lev-Ran, Le Strat, Imtiaz, Rehm, and Le Foll (2013) reported that significant gender differences occurred regarding the prevalence of substance use and dependence. They argued that among individuals with a lifetime exposure to substances, males had a significantly higher prevalence of substance use than females. Moreover, in a study regarding gender differences and substance use from early adolescence to young adulthood, Chen and Jacobson (2012) identified that both similarities and differences in the general patterns of development exist. Females showed higher levels of substance use in early adolescence, although males exhibited greater changes over time and higher levels of use in mid-adolescence and early adulthood (Chen & Jacobson, 2012). They further suggested that males and females experienced different forms of substance use across time. Shanon et al. (2011) further argued that although more males reported alcohol and drug use than females, males were more likely to use substances at a younger age than females.

A recent South African study surveyed a large enough sample to identify district level differences in the prevalence of substance use and other problem behaviours among 20227 learners in the Western Cape, and found no significant differences in the lifetime prevalence of both males and females regarding substance use (Morojele et al., 2013). This study found that the lifetime prevalence rates for most hard drugs are lower than expected, and males are more likely than females to report lifetime substance use (Morojele et al., 2013). In addition, Peer, Bradshaw, Laubscher, Steyn, and Steyn (2013) conducted a study describing the urban-rural and gender patterns of risk factors in African adolescents and young adults in South Africa. Using interviews and cross-sectional national surveys, they found that in males, the prevalence of smoking and alcohol abuse increased with age, while in females, alcohol and drug abuse were much lower in both rural and urban areas.

Although the direct effect of gender has been demonstrated many times in adults, with males showing greater substance use and a greater prevalence of substance use than females (Hall, Teesson, Lynskey, & Degenhardt, 1999), many adolescent studies failed to find significant effects when looking at the direct role of gender on adolescent substance use (Andrews et al., 2002; Costello, Sung, Worthman, & Angold, 2007; Donovan, Jessor, & Costa, 1999; Schulte, Ramo, & Brown, 2009; Urberg). As suggested by Brechwald and Prinstein (2011), the effect of gender is better studied in the context of a three-way interaction that would include gender along with other moderators. Nonetheless, Marschall-L'évesque, Castellanos-Ryan, Vitaro, and S'éguin, (2013) argued that often other variables come into play and interact with gender during the adolescence phase. It is therefore useful to consider that research on peer pressure, leisure boredom, substance use and gender would further help reconcile the seemingly inconsistent results of these studies.

Summary of literature

On the whole, substance use continues to posit the roles of young people essentially influencing the lives of many. Research both globally and nationally has consistently demonstrated that over the past decade the use of substances is highly prevalent among adolescents. The overall findings in the literature have demonstrated an obvious and recent use of either alcohol or other substances in South Africa. For example, the literature has demonstrated that alcohol is the most commonly used substance, followed by cannabis,

methamphetamine, heroin and cocaine in South Africa (Morojele et al., 2013). Similarly, in a South African survey conducted by Ramlagan et al. (2010), the most common substance used is alcohol, followed by cannabis, crack/cocaine, heroin, methamphetamine and prescription or over-the-counter drugs. This research is evidence of an ongoing increase in the use of both hard and soft drugs over the years in South Africa. Substance use is frequently treated in terms of its widespread prevalence and incidence rates; it therefore becomes important to tackle substance use with other factors especially among adolescents in the South African context.

Similar to international trends, a review of South African literature verifies that there is a lack of information regarding peer pressure and substance use in this country. Peer pressure and substance use are evidently important issues, as previous research consistently cites that having friends who use substances greatly increases the risk of substance use for an individual. Since literature covers few studies regarding peer pressure in low-income contexts in South Africa, many reports specify the relationship between socio-demographic, family relations and substance use among adolescents (Goel & Chalrabarti, 2010; Peltzer et al., 2007). It remains valuable to examine peer pressure among adolescents, especially its relation to problematic behaviours. Thus, the current study is designed to examine whether peer pressure predicts substance use among adolescents in low-income communities.

Nevertheless, literature conducted both globally and in South Africa suggests that the influence of leisure boredom on risky behaviours plays a vital role. Although research has indicated the need for leisure service providers in South Africa, there has been very little research in the field of leisure boredom and risky behaviour among adolescents. In fact, the phenomenon of leisure boredom has received relatively little attention throughout the world (Wegner & Flisher, 2009). Wegner (2011) voiced an urgency regarding research on factors such as leisure boredom and adolescents' use of free time in relation to risky behaviours such as substance use. This study aims to examine whether leisure boredom predicts substance use among adolescents in low-income communities.

It is important to highlight some limitations regarding the literature mentioned above. Firstly, although an abundance of South African studies focused on the prevalence and demographics of substance use, empirical evidence linking peer pressure and leisure boredom to substance use is somewhat limited. Secondly, most studies examining risk factors associated

with substance use are restricted to certain contexts. This makes it difficult to generalize to other people or other settings i.e. findings are unique to the relatively few people. Thirdly, while a substantial amount of literature has focused on peer pressure and substance use, and some research centres on the relationship between leisure boredom and substance use, no studies in South Africa have focused on the combined effect of the two factors on substance use. Fourthly, the lack of information regarding gender as a moderator variable is supported by the need to advance this line of research. These were common research limitations found in many studies which restrict substance use research. Nonetheless, as demonstrated in the literature, researchers must integrate studies regarding peer pressure and leisure boredom which contribute to adolescent substance use.

A review of literature reveals a gap in the South African context concerning the specific manifestation of the relationship between substance use, peer influence and leisure boredom within disadvantaged communities. In short, considering the irregularities in the literature concerning the important relationship between substance use, peer influence, leisure boredom and the lack of knowledge in the South African context, further research into this domain is warranted. It is therefore critical to inaugurate more information regarding risky behaviours of adolescents in order to inform policy and intervention programs in Cape Town. Additionally, further exploration of the factors shown to influence substance use in young people, and the way in which these factors interact with each other, will provide an improved approach to substance use.

This study aims to provide an effective interpretation of the systemic interaction of these factors and the influence gender has on the relationship between peer pressure, leisure boredom and substance use. It also provides a thorough literature account of peer pressure, leisure boredom and substance use by adolescents. In addition, considering the current paucity of research on the association between risk factors and substance use, assessing the relationships between peer pressure, leisure boredom and substance use can narrow this gap.

THEORETICAL FRAMEWORK

Problem-behaviour theory

The current study is located in the theoretical framework of the problem-behaviour theory. This theory is a multivariate, social-psychological framework incorporated in behaviour that is socially defined as a problem or a source of concern (Jessor, 1977). It provides a framework for the incorporation of factors that contribute to the welfare and problematic behaviours of adolescents. This section will provide information regarding the various systems in the problem-behaviour theory.

Establishment of the problem-behaviour theory

This theory was developed in the early 1960's as a guide to the study of alcohol use and other problem behaviours. Jessor's problem-behaviour theory was initially established with a study of alcohol abuse in minority communities (Rew, 2005) and was then conceptualized as a psychosocial model that attempted to explain behavioural outcomes (Zamboango, Carlo, & Raffaelli, 2004). Subsequent to the original study of Richard and Shirley Jessor, published in 1977, the problem behaviour theory expanded to examine the factors associated with a problem. Jessor, Graves, Hanson, and Jessor (1968) were among the first to recognize that substance use might be just one symptom of an adolescent's more general tendency toward numerous problem behaviours. Hence, this psychosocial model opposes reductionist approaches in which objects are investigated as individual phenomena.

The problem-behaviour theory serves as a psychosocial model that provides a description of behavioural outcomes, namely substance use, deviance and other risky behaviours (Zamboango et al., 2004). This theory starts with the assumption that the susceptibility to problem behaviours is a result of the interaction of the person and the environment. It asserts that adolescents who are prone to one problem behaviour i.e. delinquency, are susceptible to other problem behaviours i.e. substance use. In line with a cross-sectional study conducted by Donovan et al. (1999), adolescents who use cannabis are more likely to use alcohol, be sexually active, engage in fighting and parental defiance, and are less likely to engage in health-promoting behaviours. The problem-behaviour framework includes the interactions of relationships with the individual and their immediate surroundings.

The conceptual structure of the problem-behaviour theory

Jessor's (1987) problem-behaviour theory emphasizes the interplay between various systems in determining particular functions or interactions of adolescents. The problem-behaviour theory of Jessor describes specific components of the environment namely the personality system, perceived-environmental system and the behaviour system (Rew, 2005).

This theory emphasizes the interplay between systems in determining particular functions or interactions (Jessor, 1968). It incorporates three major psychosocial systems. These various components include the personality system, the perceived-environmental system and the behaviour system. The personality system describes the social cognitions, individual values, beliefs and attitudes. Beyond the personality system is the perceived-environmental system consisting of proximal and distal social factors such as family, peer orientation and expectations regarding problem behaviours (Jessor, 2001). The behaviour system consists of 'problem and conventional' behavioural structures that work in opposition to one another (Jessor, 1987, p. 334). Jessor (2001) proposed that these problem behaviours develop from an individual's sense of independence from parents and societal influence such as substance use (Zamboango et al., 2004). On the other hand, conventional behaviours are expected behaviours which forms part of society's traditional standards of appropriate behaviour. According to Jessor (1987), adolescents are more prone to specific problematic behaviours and less participation in conventional or traditional behaviours.

Over and above this, an underlying assumption of this theory is that each system serves as either initiating or controlling the problem, resulting in 'proneness' (Jessor, 1987, p. 332). When proneness is combined in all three systems it generates a theory used in the prediction and explanation of problem behaviours. The problem-behaviour theory is important as it provides a framework for a personality, behaviour and environment interaction on the variables of this study. Along with this, Jessor (2001) further reported that the escalation of a problem such as substance use has shown to be widespread during the adolescence period.

Although this model has been organized as an account for proneness to engage in problem behaviours, adolescent development is associated with age-graded norms and age-related expectations. In other words, certain behaviours may be acceptable for those who are

older but prohibited for those who are younger (Jessor, 1987). Alcohol use, for example, is banned for those under the legal age, but is permitted for those who are older. When the initial occurrence of age-graded behaviours takes place at a young age, it constitutes a departure from the regulatory age norms considered acceptable for that age. And thus, engaging in certain behaviours for the first time is a transition from younger to older, or from adolescent to adult (Jessor, 1987). This transition to problem behaviours predicts which adolescents are more likely to change behaviour, as well as the timing of any transitions, whether it is earlier versus later in these problem-behaviour areas. Thus, the problem behaviour theory framework is considered to have effective implications for developmental behaviour change.

Consequently, Jessor (2001) reminds us that understanding the causes of substance use requires that we first understand the causes of problem behaviours in general. Jessor, Graves, Hanson and Jessor (1968) were among the first to argue that an adolescent's risk for alcohol and substance use is shaped by the relative imbalance of environmental and intrapersonal factors that contribute to either promoting or inhibiting the problem. This model posits that a relationship exists among a psychological system, a perceived-environment system, a community system, a leisure behaviour system and an outcome of a behaviour system (as cited in Wegner & Flisher, 2009). The use of these variables represents interactions of risk factors such as peer pressure, leisure boredom and substance use. This theory provides a useful framework for incorporating systems that contribute to adolescent problematic behaviours.

METHOD

Research design

This exploratory study used a correlational research design, which is a design used to examine relationships or predictions between two or more measured variables (Marczyk, De Matteo, & Festinger, 2010). An advantage of a correlational design is that it allows for the researcher to analyse relationships between a large number of variables (Marczyk et al., 2010).

Research context

The current study was conducted in two low-income communities in Cape Town. Community One is a predominantly ‘Coloured’² township located approximately 32 km from the Cape Town city centre and comprise an estimated population of between 290, 000 – 305, 000. It was regarded as a model township by the apartheid government, and was built during the 1970’s to provide housing for Coloured victims of forced removals owing to the execution of the Group Areas Act (Sharp et al., 2011). This region, according to Sharp et al. (2011) is among the highest cohort of individuals reporting substance use.

Community Two is located in the southern suburbs of the Western Cape, approximately 10km from the Cape Town city centre (Lohnert, Oldfield, & Parnell, 1998). It is a suburb that has a rich architectural and cultural heritage. Before the forced removal of residents during the apartheid era, this community was a mix of cultures and ethnic groups. Since 1994, this vibrant mix has been partially re-established (Lohnert et al., 1998). This community is comprised of largely previously disadvantaged individuals and has an estimated population of 14,472 (Bamu & Theron, 2012; Wynberg Census, 2011).

These impoverished communities are characterised by high levels of unemployment, low levels of education and poor infrastructure. These neighbourhoods are underprivileged and receive limited social services. Both communities are high-risk communities where substance use, crime, gangsterism and violence are prevalent.

² ‘Coloured’ was an official term used by the apartheid state to refer to a mixed-race group having Khoisan ancestry (Dinan, Mccal & Gibson, 2004).

Participants

Participants were selected by means of purposive sampling. The purposive sampling technique is a type of non-probability sampling technique that is most effective when one needs to study a certain domain with knowledgeable experts (Tongco, 2007). Since the study was exploratory in nature, a purposive sampling strategy was appropriate, as the emphasis was on “generating ideas and insights” (Churchill, 1995, p. 483). The participants for this study were accessed from two high schools located in the aforementioned communities. The selection criteria of age (between the ages 16 – 18 years) and area of residence were applied. This cohort has been identified in literature as the most likely to engage in substances (Tapert, Aarons, Sedlar, & Brown, 2001). The final sample consisted of 296 learners (116 males and 175 females) from grade 10 and 11 (See Table 1).

The following table presents the frequencies for gender and grade.

Table 1.

Frequencies for gender and grade

		Frequencies	Percent	Valid Percent
Gender	Male	116	39.18	40.3
	Female	175	59.12	59.7
	Missing	5	1.689	
Grade	10	223	75.34	78.9
	11	60	20.27	21.1

Measurement tool

This study collected data using three scales. The following standardised scales consist of the Drug Use Disorders Identification Test (DUDIT) (Appendix D); the Resistance to Peer Influence (RPI) measure (Appendix E) and the Leisure Boredom Scale (LBS) (Appendix F).

The DUDIT is an 11-item self-report questionnaire designed to screen individuals, identify substance use patterns as well as a range of drug-related problems (Berman, Bergman, Palmstierna & Schlyter, 2002). These items are rated on a 3 – 5 point interval scale and responses range from ‘never’ to ‘4 – 5 times a week’ (Berman et al., 2002, p. 13). The maximum

score for the DUDIT is 44 points, with higher scores indicating greater dependence on drugs and lower scores indicating no/minimal drug use. The psychometric property of the DUDIT for a Swedish population in prison, on probation and in inpatient detoxification settings was evaluated and a Cronbach's alpha of 0.80 was found (Berman et al., 2002). The DUDIT was found to be valid with high specificity and sensitivity by the developers of the instrument in a Swedish setting (Berman et al., 2002). Cut-scores indicated that men with a score of 6 and above and women with a score of 2 and above present with a drug-related problem (Berman et al., 2002). Studies (see e.g., Matuszka et al., 2013; Voluse et al., 2012) have shown the DUDIT to be a psychometrically sound screening measure, with high reliability and validity (*Cronbach's alpha* > 0.80).

The RPI measure consists of 10 pairs of opposite items which measure statements about inter-individual interactions of peers and demonstrated good validity and internal consistency of 0.71 (Steinberg & Monahan, 2007). The responses on the RPI measure range from 'very much like me' to 'not at all like me' (Steinberg & Monahan, 2007). In previous studies the scale showed good validity, good reliability and internal consistency with a Cronbach alpha of 0.71 (Modecki, 2009; Steinberg & Monahan, 2007). Du Toit et al. (2010) determined the reliability and validity for this scale in the context of both urban and rural settings in the Western Cape and found a Cronbachs alphas of 0.70 and 0.50 respectively (Du Toit et al., 2010). These findings support the RPI measure as a reliable and valid instrument in the South African context.

Iso-Ahola and Weissinger (1987) devised the LBS on the basis of literature regarding leisure and boredom constructs. They found that the LBS measures individual differences in perceptions of boredom in leisure. This 16-item instrument is scored on a 1– 5 Likert Scale with higher scores indicating high leisure boredom. Participants were requested to indicate the extent to which they 'strongly disagree' to 'strongly agree' (Iso-Ahola & Weissinger, 1987). In order to determine the reliability of the LBS, Wegner, Flisher, Lombard, and Muller (2002) conducted two studies with grade 8 and 11 learners attending high schools in Cape Town. They found Cronbach alphas of 0.76 for study 1, and 0.87 for study 2. It can be concluded that the LBS has satisfactory psychometric qualities for adolescents in the South African context.

Procedure and Ethics

Ethics clearance was obtained from the Ethics Committee of the University of the Western Cape and permission was granted from the Western Cape Education Department. Once the schools were contacted, the researcher scheduled a meeting with the principal and the life skills teacher to discuss an appropriate day, time and venue for the questionnaires to be administered. Learners who agreed to participate were requested to provide signed consent (Appendix B) as well as obtain signed consent from their parents (Appendix C). Thus, students and parents were informed about the aims and objectives of the study by means of an information sheet (Appendix A) and invited to participate in the study without coercion. The questionnaire was administered at each school in the administration period and took approximately 20 minutes to complete. The questionnaires were kept in a secure place where only the key researchers had access. Thereafter, it was cleaned, coded and analysed using the IBM Statistical Package for Social Sciences (IBM SPSS-21).

When research is conducted, it is a vital component in research to be aware of the general agreements viewed as what is proper and improper according to the conduct of scientific inquiry (Babbie & Mouton, 2001). As mentioned above, permission and ethics clearance were granted from the relevant authorities. This study ensured that no harm was done to any participants and participants were fully informed about the purpose of the study. Accordingly, participation in this study remained voluntary, which allowed the participants to withdraw at any time. Before administration of the questionnaire, information about anonymity and confidentiality were discussed. Participants were informed that data will only be discussed among the researchers directly involved in the study. Counselling services were available for the participants who experienced any trauma or difficulties regarding the topic.

Data analysis

The data were analysed using descriptive statistics and inferential statistics using IBM SPSS-21. Descriptive statistics aim to organize and summarize a sample of observations of the given data while inferential statistics describe the procedures and generalisations from the sample to the population (Hair, Black, Babin, & Anderson, 2010).

This study used linear and multiple regression analysis to test the hypotheses listed below. Linear regression establishes a single independent variable in order to achieve a prediction of a dependent measure (Hair et al., 2010). Multiple regression, on the other hand, is a statistical technique that allows one to predict the score on one variable on the basis of the scores on several other variables (Field, 2005; Hair et al. 2010). Linear and multiple regression supplied the mechanisms to determine whether peer pressure, leisure boredom, the combination of these variables as well as the interaction effects of gender, predict substance use among adolescents.

The data was analysed using the following hypotheses:

Hypothesis 1: Peer pressure is a significant predictor of substance use among adolescents.

This hypothesis was addressed using linear regression.

Hypothesis 2: Leisure boredom is a significant predictor of substance use among adolescents.

This hypothesis was addressed using linear regression.

Hypothesis 3: The combined effect of peer pressure and leisure boredom is a significant predictor of substance use among adolescents.

This hypothesis was addressed using multiple regression.

Hypothesis 4: Peer pressure is a stronger predictor of substance use among adolescents than leisure boredom.

This hypothesis was addressed using multiple regression.

Hypothesis 5: Gender is a significant moderator in the relationship between peer pressure, leisure boredom and substance use.

This hypothesis was addressed using multiple regression.

RESULTS

The overall aim of the study was to determine the predictive effects of peer pressure and leisure boredom on substance use among adolescents. This section presents the findings by means of tabular representations of the results and a narrative interpretation. The first section is used to describe the descriptive statistics in terms of the means and standard deviations. Furthermore, an independent sample t-test is utilised to compare the various groups. Thereafter, the analyses of the constructs relevant to the study are presented with the aid of inferential statistical procedures in terms of linear and multiple regression, assumptions and decision-making.

Descriptive statistics

The descriptive statistics computed for the study are presented in an outline of the characteristics of the sample. The descriptive statistics calculated the frequencies of both males and females in the section that follows.

Table 2 presents the characteristics of the sample using the DUDIT.

Table 2.

Frequencies for drug dependence for males and females

	Males		Females	
	Frequency	%	Frequency	%
No dependence	85	73.3	151	86.3
Drug-related problem	27	23.3	21	12.0
Drug dependence	4	3.4	3	1.7

Table 2 represents the extent to which the participants can be considered as drug dependent. The results showed that 73% ($f = 85$) of males and 86% ($f = 151$) of females are abstaining from substance use. In addition, 23.3% ($f = 27$) of males and 12 % ($f = 21$) of females had a drug-related problem. The results further indicate that 3.4% ($f = 4$) of males and 1.7% ($f = 3$) of females were drug dependent. Males with drug-related problems are identified at a cut-off score of 6 or more, whereas females with drug-related problems are identified at a cut-off score of 2 points or more.

The sample size, mean and standard deviation are presented in the table below.

Table 3.

Sample size, mean and standard deviation of drug use, peer pressure and leisure boredom

	N	Mean	Std. Deviation
Drug use	296	.27	.526
Peer pressure	296	2.04	.480
Leisure boredom	296	1.67	.589

The mean score on the DUDIT ranged between 0 – 44 indicating that the respondents scored relatively low on this variable ($\bar{X} = 0.27$, $SD = 0.53$). The mean score on the RPI scale ranged between 0 – 30 indicating that participants scored relatively low on this variable ($\bar{X} = 2.04$, $SD = 0.48$). The mean score on the LBS ranged between 0 – 64 indicating a relatively low score ($\bar{X} = 1.67$, $SD = 0.59$).

The following table outlines a t-test for males and females regarding substance use, peer pressure and leisure boredom.

Table 4.

Independent samples t-test of males and females

	t	Sig. (2-tailed)	95% Confidence Interval of the Difference	
			Lower	Upper
Substance use	3.234	.001	.868	3.568
Peer pressure	1.301	.194	-1.896	.388
Leisure Boredom	1.044	.297	-3.405	1.045

In table 4 above, an independent samples t-test was used to determine whether significant differences occurred between males and females regarding substance use, peer pressure and leisure boredom. On average, males ($\bar{X} = 4.30$, $SD = 6.65$) had higher substance use than females ($\bar{X} = 2.08$, $SD = 5.03$). An independent sample t-test showed that a significant difference existed

between males and females regarding substance use ($t = 3.234, p < 0.01$). On average, males ($\bar{X} = 19.88, SD = 4.89$) had lower peer pressure than females ($\bar{X} = 20.64, SD = 4.77$). An independent samples t-test showed that there is no significant difference between males and females regarding peer pressure ($t = 1.30, p > 0.05$). On average, males ($\bar{X} = 25.98, SD = 8.07$) had lower leisure boredom scores than females ($\bar{X} = 27.16, SD = 10.25$). An independent samples t-test indicated that no significant difference exists between males and females regarding leisure boredom ($t = 1.044, p > 0.05$).

Inferential statistics

The analyses of the constructs relevant to the study were analysed using multiple regression. Normality tests on the model showed skewness of the residuals at 2.45, with kurtosis at 6.50. These departures from normality were handled using bootstrapping (1000 samples) in SPSS. The main benefit of the bootstrap confidence intervals and significance values is that they do not rely on assumptions of normality or homoscedasticity, so they give us an accurate estimate of the true population value of b for each predictor (Field, 2009). The rest of the assumptions for linear and multiple regression are met.

Approach to entry

This model attempted to improve the decision-making with regard to substance use and used the hierarchical method doing multiple regression analysis. With regard to the hierarchical method, peer pressure was entered first as past literature demonstrated that it is the strongest predictor (See Field, 2009, for a more in-depth discussion). Thereafter, leisure boredom was entered. Moreover, the forced-entry method was used to enter the combination of the predictor variables, namely peer pressure and leisure boredom.

Hypothesis 1: Peer pressure is a significant predictor of substance use among adolescents.

Linear regression was used to test the above hypothesis. This technique allows for predicting substance use based on one predictor variable, namely, peer pressure.

The overall model summary is presented in the table below.

Table 5.

Model Summary

Model	R	R Square	Adjusted R Square
1	.217	.047	.044

In table 5 above, the R^2 (0.047) indicates that peer pressure accounts for 0.475% of the variation in substance use. This means that 99.953% of variance is left unexplained and accounted for by other factors.

The following table outlines the ANOVA.

Table 6.

ANOVA

Model	Sum of Squares	Df	Mean Square	F	p
1	465.605	1	465.605	14.540	.000

**Regression is significant at the 0.001 level (2-tailed)*

Table 6 indicates that the F -ratio is significant, which indicates that the model is a good fit ($F = 14.540, p < 0.05$).

The following table presents the parameters of the model.

Table 7.

Coefficients

	B	β	t	p	95% Confidence Interval	
					Lower	Upper
Peer Pressure	-.262	-.217	3.813	.000	-.43	-.106

**Regression is significant at the 0.001 level (2-tailed)*

In table 7 above, peer pressure is a significant predictor of substance use ($\beta = -0.217, t = -3.813, p < 0.01$). Therefore, a decrease in resistance to peer pressure leads to an increase in substance use.

Hence, the null hypothesis was rejected.

Hypothesis 2: Leisure boredom is a significant predictor of substance use among adolescents.

Linear regression was used to test the above hypothesis. This technique allows for predicting substance use based on the predictor, leisure boredom.

Table 8.

Model Summary

Model	R	R Square	Adjusted R Square
2	.220	.048	.042

Table 8 above indicates that R^2 (0.048) can account for 0.048% of the variation of substance use. This means that 99.525% of the variation in substance use cannot be explained by leisure boredom only.

The following table outlines the ANOVA.

Table 9.

ANOVA

Model	Sum of Squares	df	Mean Square	F	p
2	476.929	1	238.465	7.430	.001

**Regression is significant at the 0.001 level (2-tailed)*

As seen in table 9 above, the F -ratio is significant which indicates that the model is a good fit ($F = 7.43, p < 0.01$).

The following table presents the parameters of the model.

Table 10.

Coefficients

	95% Confidence Interval					
	B	β	t	p	Lower	Upper
Leisure boredom	.021	.034	.594	.95	-0.39	.083

**Regression is significant at the 0.001 level (2-tailed)*

Table 10 shows that leisure boredom is not a significant predictor of substance use ($\beta = 0.034$, $t = 0.594$, $p > 0.05$).

Hence, the null hypothesis was not rejected.

Hypothesis 3: The combined effect of peer pressure and leisure boredom is a significant predictor of substance use among adolescents.

Multiple regression (forced-entry) was used to test the above hypothesis. This technique allows for testing whether the combined influence of peer pressure and leisure boredom predict substance use.

The following table presents the ANOVA.

Table 11.

ANOVA

Model	Sum of Squares	df	Mean Square	F	p
1	476.929	2	238.465	7.430	.001

**Regression is significant at the 0.001 level (2-tailed)*

Table 11 indicates that both peer pressure and leisure boredom, in combination, significantly predict substance use ($F = 7.430$, $p < .01$).

Thus, the null hypothesis was rejected.

Hypothesis 4: Peer pressure is a stronger predictor of substance use among adolescents than leisure boredom.

Multiple regression (hierarchical entry) was used to test the above hypothesis. This technique allows for testing whether peer pressure is a stronger predictor of substance use than leisure boredom.

The following table presents the parameters of the model.

Table 12.

Coefficients

	B	SE	β	t	p
Peer pressure	-.262	.069	-.217	-3.813	.000
Leisure boredom	.021	.035	.034	.594	.553

**Regression is significant at the 0.001 level (2-tailed)*

Table 12 shows that peer pressure is a significant predictor of substance use ($\beta = -0.217$, $t = -3.813$, $p < 0.01$) and leisure boredom is not a significant predictor of substance use ($\beta = 0.034$, $t = 0.594$, $p > 0.05$). The *beta* value indicates that as resistance to peer pressure decreases substance use increases. The results further show that peer pressure is a significantly stronger predictor of substance use than leisure boredom.

Hence, the null hypothesis was rejected.

Hypothesis 5: Gender is a significant moderator in the relationship between peer pressure, leisure boredom and substance use.

A product-term multiple regression was conducted to test the hypotheses above. This type of multiple regression allows for a moderator and interaction effect to be tested.

The following table present the interaction effect of peer pressure and leisure boredom on substance use.

Table 13.

Interaction of peer pressure and leisure boredom with substance use

	B	SE	t	p
Peer pressure	.1975 [-.4971, -.5972]	.2005	-.9851	.3254
Leisure boredom	-.003 [-.1670, .1665]	.0847	-.0030	.9976

**Regression is significant at the 0.001 level (2-tailed)*

Table 13 above confirms that the interaction score is not significant ($B = 0.1975$, 95% CI (- 0.4971, -0.5972), $p > 0.05$). This means that the relationship between peer pressure and substance use is not significantly moderated by gender. Furthermore, the relationship between leisure boredom and substance use is not significantly moderated by gender ($b = - 0.003$, 95% CI (- 0.1670, 0.1665), $p > 0.05$).

The null hypothesis was not rejected.



DISCUSSION

The aim of the study was to ascertain the degree to which elements such as peer pressure and leisure boredom predict substance use among adolescents in low-income communities in Cape Town. This section discusses the results of the study in the context of its aims and objectives. It will integrate the results obtained in conjunction with the literature and theoretical framework and thereby locate it within the frame of research. Nonetheless, with these empirical findings on adolescent risk for substance use found in this study, we turn to a discussion of the conceptual model that guides the present findings.

Jessor's (2001) problem-behaviour theory describes specific components of the environment namely the personality system, perceived-environment system and the behaviour system. The three systems represent contexts within which the adolescent develops bi-directional relationships, influencing their development and wellbeing (Jessor, 2001). Within this study, one specific system emerged as the perceived-environmental system. The perceived-environmental system consists of proximal and distal social factors (Jessor, 2001). Peer pressure falls within the proximal areas; with peer pressure, adolescents feel pressured, urged, or dared by others to use substances (Santor, Messervey, & Kusumakar, 2000). Leisure boredom falls within the distal system; with leisure boredom, a lack of community or recreational activities in the community may account for an increase in substance use (Caldwell, 2008).

A key finding of this study is that leisure boredom does not significantly predict adolescent substance use. This pattern is consistent with empirical research that found no significant association between leisure boredom and substance use among adolescents in South Africa (see Petterson, Pegg, & Dobson-Patterson, 2000; Wegner et al., 2006). These studies found the same relationship between leisure boredom and substance use among adolescents in disadvantaged contexts, as was found in this study. A major part of the effort of leisure education in South Africa is the Health Wise Project. The Health Wise Project stresses the importance of risky behaviours in free time and particularly stresses the importance of promoting positive use of free time among adolescents in South Africa (Caldwell et al., 2004). Retrospectively examining the original research done by Iso-Ahola and Crowley (1991), it was indicated that in the developed world, adolescents who used substances were significantly more bored than those who did not. Furthermore, Caldwell and Smith (1994) found that substance use was associated

with higher leisure boredom in the developed world. Thus, for Jessor (2001), community factors contribute to problematic behaviours such as substance use. Given that the problem-behaviour theory was derived from earlier findings regarding substance use, it was expected to find results where leisure boredom would contribute to substance use. The problem-behaviour theory remained inconsistent with the findings of this study, as leisure boredom was found to not be a strong predictor of substance use.

A key finding in this study indicates that the susceptibility of peer pressure significantly predicts substance use among adolescents. This result concurs with most authors who measured the relationship between peer pressure and substance use among adolescents (see Hiralal, 2006; Moleko, 2004; Morojele, 2002; Ojo, 2008). The findings of this study are well corroborated in literature by Allen et al. (2012) and Simons-Morton and Chen (2006) reporting that peer pressure significantly predicts substance use, with Ramirez et al. (2011) reporting that adolescents who have a high resistance to peer pressure have fewer substance using friends. Furthermore, Lundborg (2006) showed that peer substance use had a significant positive effect on the probability of alcohol and drug use. From a problem-behaviour theory, smoking marijuana, for example, is highly associated with the social acceptance of peers, simultaneously providing a subjective sense of autonomy and maturity (Jessor, 1987). The results found in this study provide support for, and increase confidence in, the proposed problem-behaviour theory. Given the fact that adolescents spend a large portion of their time in the company of their peers and at school, it is not surprising that these social contexts are linked to substance use.

A critical finding of the current study is that peer pressure emerged as a stronger predictor of substance use than leisure boredom. This is somewhat similar to Allen et al. (2012), who corroborated that peer substance use is one of the strongest predictors of relative increases in substance use among adolescents. It is also consistent with the finding by Iso-Ahola and Weissinger (1987) who argued that adolescents participate more in socializing and peer-related activities when especially bored in their free time. Although leisure and recreational activities are non-existent in impoverished communities, as a result of this study, adolescents did not find leisure boredom to be an important factor contributing substance use. It is also important to note that leisure boredom does not necessarily warrant an understanding and it should not be assumed that the young people in this sample have the capacity to understand it, apply it, or find it

personally relevant. Therefore despite young people having found that peer pressure is a stronger predictor than leisure boredom, there might be a more complicated process affecting their insights.

Besides the fact that peer pressure is conducive in the life of an adolescent, literature has shown that peers provide a normative regulation, and they provide a staging ground for identity development (Koepke & Denissen, 2012; Resnicow, Soler, Braithwaite, Ahluwalia, & Butler, 2000; Waterman, 1999). Past research has shown that adolescents who often have trouble finding their identity experiment with varied roles and discover their identities through their involvement with peers (Finkelstein, 1994; Schulenberg & Maggs, 2002). According to Erikson's (1966) theory, in the adolescent phase, individuals are trying to figure out what is unique and distinctive about themselves (Erikson, 1966). Dumas, Ellis, and Wolfe (2012) found that identity commitment is a buffer to substance use and identity exploration is a buffer to general deviancy in more pressuring peer groups. Accordingly, adolescents affiliated with a certain crowd or group are likely to be influenced by the group's norms and will adopt their normative behaviours (Dumas et al., 2012). In disadvantaged communities, identity is an important element in the formation of groups and safety. Having a sense of belonging becomes imperative in maintaining group relations for safety, which further contributes to a sense of place, respect and protection (Jack, 2013).

Empirical support examining gender differences found that significant differences occurred between men and women regarding substance use. This trend was similar to findings of both international and South African research regarding the fact that substance use is different across genders (Myers, Louw, & Pasche, 2011; Patrick et al., 2009; Randall, 1993; Reddy et al., 2007). This trend is contrary to other studies that have found no significant differences between males and females regarding substance use (see, for example, Aloise-Young et al., 1994; Andrews et al., 2002; Boyes, 2001). There are nonetheless some differences among findings in previous studies in terms of gender having a moderating effect on the relationship between peer pressure and substance use. While the current study found inconsistent results for the moderating role of gender, Hoffman, Sussman, Unger, and Valente (2006) found a strong effect of peer association on substance use being moderated by gender. The findings of the current study were consistent with the findings by Westling et al. (2008) and Denault et al. (2012) who found no

significant interactions between peer associations and alcohol use moderated by gender. Although this study found that gender was not a significant moderator in the relationship between leisure boredom and substance use, Sweeting and West (2003) showed that the differences in gender influenced the change in leisure activities and patterns of substance use. They found that gender interactions for substance use were not significant. Understanding gender differences in substance use as well as other differences among individuals presents important opportunities to incorporate this knowledge into substance abuse early intervention, prevention and treatment efforts (Shannon, Havens, Oser, Crosby, & Leukefeld, 2011).

Summary of results: Theoretical implications

The results of the present study provided evidence of peer pressure, leisure boredom and substance use within a South African context. The overall findings were scrutinized to support the aim and objectives of the study. Using Jessor's (2001) problem-behaviour theory, the finding was that adolescents possess a heightened inclination to take risks and therefore are more likely to engage in problematic behaviours. The following section will provide a brief summary of the core arguments present in the paper.

This study scrutinizes the effects of leisure boredom on substance use among adolescents from a problem-behaviour approach. To briefly summarize, the problem-behaviour theory links risk factors and substance use, which suggests that distal or community factors may function as a determinant and contributor to problematic behaviours such as substance use (Jessor, 1991). One of the findings that emerged from this study was that leisure boredom did not significantly influence substance use among adolescents. It thus becomes imperative to note that leisure boredom is not an indicator for this sample, which seems to contradict the theory. An interpretation of the results could mean that adolescents are not familiar with the opportunities for socialization and often have the responsibility of financially helping their families. As expected, adolescents from poorer homes or disadvantaged communities have additional responsibilities, less access to resources and may be more susceptible to a lack of leisure activities. Mmari, Roche, Sudhinaraset, and Blum (2009) concur that a focus on individuals' responsibilities in poor communities is often tested by adolescents' responsibilities for additional tasks, including nursing sick family members, keeping household accounts and helping to maintain the family financially. When adolescents have to endure additional tasks, they may feel

they have no free time in order to participate in leisure activities. Thus, leisure time may be interpreted as a foreign construct whereby adolescents spend their free time having part-time jobs, looking after younger siblings etc. It is at the proximal or interpersonal level that more attention should address ways to lessen substance use.

This study examines the effects of peer pressure through a problem-behaviour framework which holds that peers learn to practise substance use with one another as an expression of independence from parental control (Jessor, 2001). One of the key findings of this study is that peer pressure predicted substance use among adolescents. The findings of this study, previous research and the problem-behaviour framework confirm that resistance to peer pressure reduces the risk of adolescents' engagement in problem behaviours such as substance use. In this sample, it may be that adolescents are deprived of having meaningful relationships with parents due to economic hardships, stress and neglect. While young people are said to become increasingly distant and detached from their parents and other adults, belonging to a peer group further influences adolescents' identity and socialization (Meeus, Oosterwegel, & Vollebergh, 2002). The participants in the present study, residing in impoverished communities, are highly involved in various types of peer related activities and thus less likely to be bored because their time is occupied by time spent with peers.

In addition to the fact that the results are consistent with the findings of the problem-behaviour theory, proneness to problem behaviours among adolescents is associated with higher peer pressure and peer conformity (Jessor, 1987). In this study, the fact that adolescents are less resistant to peer pressure, and are more vulnerable to problematic behaviours, is line with Jessor's (2001) problem behaviour proneness. Jessor (1987) contends that the involvement in any problem behaviour increases the likelihood of the involvement in other problem behaviours due to their linkages in the social ecology of youth. The interpretation of the results of this study appears to have been supported by the problem-behaviour theory, as peer-related factors may exacerbate problematic behaviours such as substance use. In other words, adolescents who are confronted with peer pressure are more likely to engage in problem behaviours, such as substance use, than adolescents who are bored and/or have nothing to do in their free time. If the negative effect of peer pressure is to be minimized by youth activities, parents or school, it may

guide the behaviour of the adolescents and support their transition to positive mature behaviour (Jessor, 2001).

In the growing quest for identity development, adolescents search for a sense of belonging among peer groups rather than pursuing support from their parents. When adolescents seek a sense of belonging from their peers and are negatively influenced, they may possibly engage in risky behaviours. This according to Erikson (1966) is related to identity development, as peer group membership emphasizes the importance of group membership and peer influence for adolescents. This is further supported by the fact that a desire to be part of 'something' places a huge amount of pressure on adolescents to behave in a particular way (Allen et al., 2012; Hansen & Graham, 1991; Westling, 2008). For adolescents, this is a way of gaining the attention and respect from peers, a sense of belonging, maturity, independence from parents and self-esteem (Singh, 2013).

Much of what is considered to be problematic behaviours in youth is relative to age-graded norms and age-related expectations (Jessor, 2001). Jessor (2001) argues that such behaviours are seen as characterizing the tenancy of desiring to have a mature status. Adolescents' engagement in problem behaviours is a way of marking maturity, a transition from youth to adulthood (Jessor, 2001). For Jessor (1987), adolescents are involved in problematic behaviours that are regarded as normatively acceptable for adults. Some behaviours are permitted or even prescribed for those who are older, such as alcohol use, and are prohibited for those who are younger (Jessor, 2001). One explanation inferred from this study could be that adolescents who engage in substance use desire to have a mature status. Substance use can serve this purpose especially for adolescents seeking ways to appear mature among peers (Prinstein & Dodge, 2008). In this sample, substance use is evident among adolescents, which is indicative of the problem among young people.

Nonetheless, although the most important predictor is the susceptibility of negative peer influence in the current study, the combination of peer pressure and leisure boredom in this sample significantly predicted substance use. This is in line with the problem-behaviour theory which states that adolescent substance use is instigated by both proximal and distal factors (Jessor, 2001). Adolescents assigned greater value to proximal factors as opposed to distal factors, and peer pressure constituted a higher risk factor than leisure boredom on substance use.

Other factors that have not been examined in the current study may account for the use of substances by adolescents in the current sample. In an attempt to develop prevention strategies and interventions to reduce substance use, it is evident that when working with adolescents one cannot simply focus on substance use exclusively, without taking into consideration the influence of multiple factors.

This study found that gender did not significantly moderate the relationship between peer pressure, leisure boredom and substance use for adolescents. This meant that even if gender as the moderator was removed, the relationship between peer pressure, leisure boredom and substance use would still be equivalent. Although, non-significant moderating effects occurred, a noteworthy finding of this study was that a significant difference occurred between males and females regarding substance use. Although differences occurred in terms of gender with regard to substance use, it did not provide information regarding the attitudes and perceptions of males and females with which substance use is associated.

In summary, leisure boredom did not significantly predict substance use while peer pressure was found to be a significant predictor of substance use. Even though it was found that the most important predictor was peer pressure, the combination of the predictors significantly influenced substance use. Additionally, a significant difference was found between males and females in terms of substance use while gender did not significantly moderate the relationship between peer pressure, leisure boredom and substance use.

CONCLUSION

The central aim of the study was to determine the effect of peer pressure and leisure boredom on substance use among adolescents in low-income communities in Cape Town. Descriptive information of the respondents was collected, as well as inferential data on peer pressure, leisure boredom and substance use among adolescents. Previous research was highlighted and the problem-behaviour theory was discussed to form the theoretical basis for this study. Further research is ultimately required to delineate the specific factors in different contexts to predict substance use among adolescents.

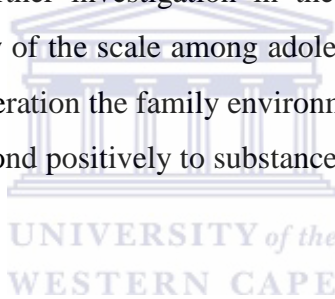
The key finding of this study is that peer pressure and leisure boredom combined predict substance use among adolescents, with peer pressure emerging as the stronger predictor. The importance of psychosocial aspects of substance use among adolescents echoes throughout literature and advances the need for research and intervention in this area of population. The results add further evidence to a growing body of literature demonstrating that there is an increased potential that the association of peers rather than leisure boredom is linked to an increase in substance use or engagement in problematic behaviours. This study will assist in an increased understanding of this phenomenon to empower the plan of interventions which could optimally be effective within the context in which they are delivered. It could broaden the scope of future research by evaluating the risk factors for adolescent substance use in low-income communities.

One of the general principles of effective substance use prevention among young people involves reducing the factors that place young people at risk of substance use and enhancing factors that protect young people from starting to use substances (Harker, Myers, & Parry, 2008; Moreojele et al., 2009). It is important to target both risk and protective factors in substance use prevention programmes. Considering the results of this study, it may be critical to focus more specifically on managing and intervening in the adolescent's activities and behaviour with peers. As such a focused approach would eventually contribute to positive adolescent development and protect against the use of substances.

The findings of the current study indicate there are factors other than peer pressure and leisure boredom that account for substance use levels in this sample. It is therefore important for further studies to examine additional factors (both proximal and distal) that account for substance use. When working with young adults the influence of multiple factors including substance use as well as their perceptions will have to be taken into consideration.

Limitations

The data was collected from two communities only, so therefore the outcomes of the study may not be generalised to the general population of adolescents in Cape Town. Moreover, the sample was limited to school-going adolescents in Cape Town urban communities. The current sample used self-reported questionnaires, which are not always considered to be reliable in terms of participants' true opinions and the tendency to provide socially desirable responses. The instrument itself requires further investigation in the South African context to further examine the validity and reliability of the scale among adolescents in low-income communities. This study did not take into consideration the family environment as one of the major risk factors that may allow adolescents to respond positively to substance use. Thus, more research is needed in this area.



Recommendations

This study provided a significant base to motivate adolescent development in such a way that positive behaviour is promoted. It was recommended that future research should intensify investigation into various factors of substance use, specifically exploring how these factors relate and interact with one another and their potential moderator effects on substance use. Based on the results of this study, the following are additional recommendations:

1. There is a need for further study of specific issues including the different age, gender and geographical requirements of adolescents in relation to factors that influence substance use.
2. There is a need for more sophisticated analysis such as structural equation modelling with larger representative samples.

3. It is recommended that the role of leisure boredom and the extent to which access to leisure and recreational facilities influence substance use among adolescents be further explored.



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Appendix A



UNIVERSITY OF THE WESTERN CAPE

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INFORMATION SHEET

Information and invitation to participate in a study being conducted at the University of the Western Cape about the effect of peer pressure, leisure boredom on substance use among adolescents in low-income Cape Town communities.

I am a Research Psychology Masters student at the University of the Western Cape. I'm inviting you to participate in this research project to investigate substance use among adolescents. It has been established that substance use in the Western Cape has been a growing concern, your participation in this study will provide better understandings and clarifications around the factors peer pressure, leisure boredom and substance use. This study is expected to inform prevention and intervention strategies within Cape Town.

Participation will be voluntary and involves the completion of questionnaires which investigates peer pressure, leisure boredom and substance use. Participants may withdraw at any time without any negative consequences. Questionnaires and all personal information will be kept confidential. The questionnaire will take approximately 20 minutes of your time, and you will not be required to put your name on questionnaire to ensure your participation in this study remains anonymous. To help protect your confidentiality, we will be using *e.g. having locked filing cabinets and storage areas*. If we write a report or article about this research project, your identity will be protected to the maximum extent possible. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify. There are no known risks associated with participating in this research project.

This research is not designed to help you personally, but the results may help the investigator learn more about substance use. We hope that, in the future, other people might benefit from this study through improved understanding of peer pressure, leisure boredom and substance use.

If you have any questions about the research study itself, please contact the researchers. This research is being conducted by Gaironeesa Hendricks at the University of the Western Cape. If you have any questions about the research study itself, please contact me at 0843028056.

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Head of Department: Dr Andipatin

Dean of the Faculty of Community and Health Sciences: Professor Frantz

University of the Western Cape

Private Bag X17

Bellville 7535

This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.



Appendix B



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STUDENT CONSENT FORM

Title of Research Project: The effect of peer pressure, leisure boredom on substance use among adolescents in low-income Cape Town communities.

The study has been described to me in language that I understand and I freely and voluntarily agree to participate. My questions about the study have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study without giving a reason at any time and this will not negatively affect me in any way.

Participant's name.....

Participant's signature.....

Witness.....

Date.....



Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Study Coordinator's Name: Gaironeesa Hendricks

Cell number: 084902859

Head of Department: Dr M. Andipatin

Dean of the Faculty of Community and Health Sciences: Professor J. Frantz

University of the Western Cape, Private Bag X17, Bellville 7535

This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.

Appendix C



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CONSENT FORM FOR PARENTS/GUARDIANS

Title of Research Project: The effect of peer pressure, leisure boredom on substance use among adolescents in low-income Cape Town communities.

I,.....the undersigned, hereby give consent for my son/daughter,....., to participate in the research study.

I understand the nature of the research. All my questions about the research have been answered. Confidentiality will be maintained at all times. My child's identity will not be disclosed and the researchers will monitor access to the information he/she provides.

My permission needs to be secured to disclose information. The information will be disseminated to the public via publications. I confirm that I have read and understand the information sheet attached. I give permission for my son/daughter to participate in his/her individual capacity.

Signature of Parent/Guardian.....Date:.....

Signature of Researcher:.....Date:.....

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Study Coordinator's Name: Gaironeesa Hendricks Cell number: 0849028059

Head of Department: Dr M. Andipatin

Dean of the Faculty of Community and Health Sciences: Professor Frantz

University of the Western Cape, Private Bag X17, Bellville 7535

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Appendix D: Drug Use Disorders Identification Test (DUDIT)



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Please answer the following questions about your drug-use. Your answers will remain confidential so please be honest and answer correctly. Place an X in the box that best describes your answer to each question.

Question	0	1	2	3	4	Office use
1. How often do you use drugs other than alcohol?	Never <input type="checkbox"/>	Once a month or less often <input type="checkbox"/>	2-4 times a month <input type="checkbox"/>	2-3 times a week <input type="checkbox"/>	4-5 times a week <input type="checkbox"/>	
2. Do you use more than one type of drug on the same occasion?	Never <input type="checkbox"/>	Once a month or less often <input type="checkbox"/>	2-4 times a month <input type="checkbox"/>	2-3 times a week <input type="checkbox"/>	4-5 times a week <input type="checkbox"/>	
3. How many times do you take drugs on a typical day when you use drugs?	0 <input type="checkbox"/>	1-2 <input type="checkbox"/>	3-4 <input type="checkbox"/>	5-6 <input type="checkbox"/>	7 or more <input type="checkbox"/>	
4. How often are you influenced heavily by drugs?	Never <input type="checkbox"/>	Less than a month <input type="checkbox"/>	Every month <input type="checkbox"/>	Every week <input type="checkbox"/>	Daily or almost daily <input type="checkbox"/>	
5. Over the past year, have you felt that your longing for drugs was so strong that you could not resist?	Never <input type="checkbox"/>	Less than a month <input type="checkbox"/>	Every month <input type="checkbox"/>	Every week <input type="checkbox"/>	Daily or almost daily <input type="checkbox"/>	
6. Has it happened, over the past year that you have not been able to stop taking drugs once you started?	Never <input type="checkbox"/>	Less than a month <input type="checkbox"/>	Every month <input type="checkbox"/>	Every week <input type="checkbox"/>	Daily or almost daily <input type="checkbox"/>	
7. How often over the past year have you taken drugs and then neglected something you should have done?	Never <input type="checkbox"/>	Less than a month <input type="checkbox"/>	Every month <input type="checkbox"/>	Every week <input type="checkbox"/>	Daily or almost daily <input type="checkbox"/>	

8. How often over the past year have you needed to take a drug the morning after heavy drug use the day before?	Never <input type="checkbox"/>	Less than a month <input type="checkbox"/>	Every month <input type="checkbox"/>	Every week <input type="checkbox"/>	Daily or almost daily <input type="checkbox"/>	
9. How often over the past year have you had guilt feelings or a bad conscience because you used drugs?	Never <input type="checkbox"/>	Less than a month <input type="checkbox"/>	Every month <input type="checkbox"/>	Every week <input type="checkbox"/>	Daily or almost daily <input type="checkbox"/>	
10. Have you or anyone else been hurt (physically or mentally) because you used drugs?	No <input type="checkbox"/>		Yes, but not in the last year <input type="checkbox"/>		Yes, during the last year <input type="checkbox"/>	
11. Has a relative, friend, doctor or other health care worker, or anyone else been worried about your drug use or said that you should stop using drugs?	No <input type="checkbox"/>		Yes, but not in the last year <input type="checkbox"/>		Yes, during the last year <input type="checkbox"/>	



Appendix E: Resistance to Peer Influence Scale



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Please answer the following questions. Your answers will remain confidential so please be honest and answer correctly. Place an X in the box that best describes your answer to each question.

Question	0	1	2	3	Office use
1. Some people go along with their friends just to keep their friends happy.	Very much like me <input type="checkbox"/>	Somewhat like me <input type="checkbox"/>	Not really like me <input type="checkbox"/>	Not at all like me <input type="checkbox"/>	
2. Some people think it's more important to be an individual than to fit in with the crowd.	Very much like me <input type="checkbox"/>	Somewhat like me <input type="checkbox"/>	Not really like me <input type="checkbox"/>	Not at all like me <input type="checkbox"/>	
3. For some people, it's pretty easy for their friends to get them to change their mind.	Very much like me <input type="checkbox"/>	Somewhat like me <input type="checkbox"/>	Not really like me <input type="checkbox"/>	Not at all like me <input type="checkbox"/>	
4. Some people would do something that they knew was wrong just to stay on their friends' good side.	Very much like me <input type="checkbox"/>	Somewhat like me <input type="checkbox"/>	Not really like me <input type="checkbox"/>	Not at all like me <input type="checkbox"/>	
5. Some people hide their true opinion from their friends if they think their friends will make fun of them because of it.	Very much like me <input type="checkbox"/>	Somewhat like me <input type="checkbox"/>	Not really like me <input type="checkbox"/>	Not at all like me <input type="checkbox"/>	
6. Some people will not break the law just because their friends say that they would.	Very much like me <input type="checkbox"/>	Somewhat like me <input type="checkbox"/>	Not really like me <input type="checkbox"/>	Not at all like me <input type="checkbox"/>	

<p>7. Some people change the way they act so much when they are with their friends that they wonder who they “really are.”</p>	<p>Very much like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Somewhat like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Not really like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Not at all like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	
<p>8. Some people take more risks when they are with their friends than they do when they are alone.</p>	<p>Very much like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Somewhat like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Not really like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Not at all like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	
<p>9. Some people say things they don’t really believe because they think it will make their friends respect them more.</p>	<p>Very much like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Somewhat like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Not really like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Not at all like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	
<p>10. Some people think it’s better to be an individual even if people will be angry at you for going against the crowd.</p>	<p>Very much like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Somewhat like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Not really like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Not at all like me</p> <p style="text-align: center;"><input type="checkbox"/></p>	



Appendix F: Leisure Boredom Scale



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Please answer the following questions. Your answers will remain confidential so please be honest and answer correctly. Place an X in the box on whether you agree or disagree with the following:

Question	0	1	2	3	4	Office use
1. For me, leisure time just drags on and on.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>	
2. During my leisure time, I become very involved in what I do.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>	
3. Leisure time is boring.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>	
4. If I could leave school now and have enough money, I would have plenty of exciting things to do for the rest of my life.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>	

5. During my leisure time, I feel like I'm just bored and doing nothing.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>
6. In my leisure time, I usually don't like what I'm doing, but I don't know what else to do.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>
7. Leisure time gets me excited and going.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>
8. Leisure experiences are an important part of my quality of life.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>
9. I am excited about leisure time.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>
10. In my leisure time, I want to do something, but I don't know what to do.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>
11. I waste too much of my leisure time sleeping.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>
12. I like to try new leisure activities that I have never tried before.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>

13. I am very active during my leisure time.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>	
14. Leisure activities do not excite me.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>	
15. I do not have many leisure activities available.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>	
16. During my leisure time, I almost always have something to do.	Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>	

