Sensation Seeking and Delinquency among Saudi Adolescents

Homoud M. Al Anazi

Northern Border University, Kingdom of Saudi Arabia E-mail: homoud4448@hotmail.com

Ali K. Al-Shamli

Department of Physical Education, Sohar University
Sultanate of Oman, p.o.box:44 postale code:311
E-mail: Alshamli@yahoo.com, ashamli@soharuni.edu.om

Abstract

Juvenile delinquents in Saudi Arabia pores a serious social issue in today's society. The most frequent types of offences reported in Saudi's juvenile offences statistics are theft offences followed by assault offences, traffic violations, drugs offences and property damage or vandalism. The primary purpose of the present paper was to understand the relationship between sensation seeking and the most common offences (Theft, assault, traffic violations, substance use, and vandalism) among rural and urban male adolescents in Saudi Arabia. Moreover, the second purpose of the present paper was to explore delinquent adolescents' perspectives for giving up their engagement in delinquency behaviours.Data was collected through quantitative and qualitative methods. Quantitative data was collected through the use of questionnaires and derived from a survey of 2168 high school students (16- 18 year old), 1676 adolescents were randomly recruited from urban areas, while 492 were randomly recruited from rural areas. Moreover, the interviews were presented to provide support for the quantitative results and further explanation for the purpose of this study. The qualitative findings are derived from conducting interviews with 24 delinquent adolescents who had engaged in delinquent activities as leisure by snowball sampling technique (urban= 16 adolescents, rural=8 adolescents). Sensation seeking differences emerged between the two geographical locations. The result revealed that urban adolescents significantly higher in Sensation seeking than rural adolescents. In terms of delinquency behaviours, results showed that there was no significant difference between urban and rural adolescents in total delinquency; however, the patterns of delinquency are not homogeneous across locations. Urban adolescents reported significantly higher rates of involvement in assault, traffic violations and vandalism offences. However, however, substance use was significantly higher in rural areas than urban areas. While, theft offences and arrests there were no significant differences between them. The result (based on quantitative and qualitative findings) revealed that adolescents committed delinquent activities not only as an escape-based coping strategy from boredom but because such activities have provided the delinquent adolescents with the desired sensation of arousal as they described. In light of study findings, participants keenly expressed a big desire to participate in recreation activities and extreme recreation activities in particular. However, there is a distinct lack of leisure and recreation facilities within both of the two geographical areas. Therefore, there is a need to provide adolescents with recreation facilities. Recreation activities especially extreme recreation activities should be offered for them to be a legal alternative source of arousal for high sensation seekers because exciting recreation activities sustain and fulfill their thirst for excitement and provide the sensation seekers with the desired sensation of arousal.

Keywords: Adolescence, urban adolescents, rural adolescents, sensation seeking, delinquency.

I. Introduction

Juvenile delinquency is a serious problem in the present day; both western and eastern societies have faced recently a wave of rapidly increasing juvenile delinquency (Hussin, 2005; Crimes in the United States, 2006). In Saudi Arabia, Juvenile delinquents also pores a serious social issue in today's society (Ministry of Social Affairs in Saudi -annual report- from the year of 2000 to 2005). The most frequent types of offences reported in Saudi's juvenile crimes statistics are theft offences followed by assault offences, traffic violations, drugs offences and property damage or vandalism. According to these statistics, the rates of delinquency peak around ages 16-18 years of adolescence period. Although leisure activities are particularly important during the adolescence development (Siegenthaler, 1997; Eccles, & Templeton, 2002; Feldman & Matjasko, 2005), and occupy from 40% to 50% of an adolescent's life (Caldwell et al, 1992), however, delinquency behaviours are more likely occur during leisure time compared to other time periods (Sickmund et al, 1997).

Kajtna & Tusak (2004) have reviewed a number of psychological studies on sensation seeking and had argued that leisure activities should be optimally arousing to be psychologically rewarding. However, adolescents who are not psychologically rewarded are more likely to be bored during leisure (Caldwell et al, 1999; Stebbins, 2003).

The increasing focus on sensation seeking during adolescence is due to the fact that sensation seeking has been significantly associated with the use of illicit drugs (Stephenson, 2002; Rice & et al 2003), alcohol use and smoking (Kraft & Rise, 1994; Chandra & etal, 2003), and gambling (Gupta et. al, 2006). Psychological explanations for their findings suggest that delinquent adolescents are sensation seekers who want high levels of excitement during leisure but when leisure activities don't meet their optimal arousal, they get bored, and engage in delinquent activities as a means of reducing leisure boredom (Zuckerman, 1994; Rupp & Vodanovich, 1997; Chandra & etal, 2003). Hansen and Breivik (2001) arrived at the same conclusion that sensation seeking adolescents would be more likely to engage in delinquent activities when opportunities to engage in recreation activities are unavailable.

A. Problem Overview

According to sensation seeking theory, sensation seeking peaks in adolescence and declines in adulthood (Zuckerman, 1994; Farmer & etal, 2001; Joinson & Nettle, 2005) and high sensation seeking individuals prefer to participate in a variety of recreation activities (Zuckerman, 1994; Hansen & Breivik, 2001). Researches suggest that urban areas offer more leisure opportunities and recreation facilities available to adolescents than rural areas (Byrne et al, 2006; Beyers, 2007; Chen & et al, 2007). Consequently, they may be less participation in delinquent activities than rural adolescents in accordance with the social control theory which asserts that if adolescents are involved in recreation activities, they will be too busy and thus less likely to engage in delinquent behaviors by reducing the leisure time available to adolescents to engage in such behaviours (Cameron & MacDougall, 2000; Munson, 2002; Donaldson & Ronan, 2006). However, most research found that rural adolescents have lower crime rates than urban adolescents, (Mainous et al, 2001; Elgar et al, 2003; Sidhu, 2005; Crimes in the United States, 2006). From this perspective, one of the objectives of this study is to examine possible geographical locations differences on sensation seeking, and its relationship to delinquency among adolescents who live in urban area compared to whom live in rural area.

Moreover, it is important to note that the vast majority of studies in the area of sensation seeking have been conducted in the western societies. These findings may not be directly applicable to

other parts of the world, especially in the eastern societies and Arab society in particular. Accordingly, this study provides us with important scientific results about sensation seeking as predictor of engagement in delinquency behaviours since no previous research has explored this phenomenon in the context of a developing country such as Saudi Arabia.

B. Research Questions

- 1. What are geographical locations differences between adolescents who are live in urban areas and adolescents who are live in rural areas (between the ages of 16 and 18) in delinquent activities and sensation seeking?
- 2. What is the relationship between sensation seeking and engagement in delinquent activities (Theft, assault, Vandalism, traffic violations, substance use, and arrests) for adolescents who live in urban, rural areas and the whole sample?
- 3. What are delinquent adolescents' perspectives for giving up their engagement in delinquency behaviours?

II. Materials and Methods

Data was collected through quantitative and qualitative methods. Quantitative data was collected through the use of questionnaires, while qualitative method was conducted and data was collected through the individual interviews with 24 delinquent adolescents who had engaged in delinquent activities. The interviews were presented to provide support for the quantitative results and further explanation for the purposes of this study.

A. Qualitative Methodology

The criteria for participation in this study were that the participants be male as students in secondary school aged 16-18. Participants must be currently, and for the last 3 years, residing in and have been acted one or more offences (at least more than 10 times) over the past year which related to the most common offences among adolescents in Saudi (assault, theft, vandalism, traffic violations, substance use). As part of the human subjects' protocol, participants and their parents/ guardians must have signed consent forms and permission to tape-record the interviews prior to conduct the interviews for each participant.

To recruit participants, a snowball sampling technique was used to find study participants who had been involved in one or more offenses as leisure that were associated with assault, theft, vandalism, or substance uses offences. Snowball sampling (also called network sampling or chain sampling) is a good method when the research population is individuals with specific traits, who might otherwise be difficult to identify (e.g. drug users) (Chambliss & Schutt, 2003). According to Chambliss and Schutt (2003) this approach is achieved by asking a participant to suggest someone else who might be willing or appropriate for the study who fitting the profile of the sample and who met the selection criteria, and continue in the same way until the desired sample size has been obtained.

Data Collection Procedure

In-depth face to face semi-structured interviews lasting between 60 minutes and 75 minutes were conducted. Interview process first involved contacting adolescents by telephone if he interested to participate in this study, then meet for giving them two forms regarding request their participation in this study and setting up an interview with them at a time and location that was conformable for them and conducive to relaxed conversation. The interviews occurred in various places such as coffee shops, houses etc. These interviews were dynamic and accommodated the participants' needs, for example not being able to concentrate for long periods of time, eat or tea breaks and bathroom breaks, to assist in the comfort of the participant (Strauss & Corbin, 1990). During individual interviews, participants were asked to reflect upon questions about personal leisure and delinquency experiences. The

interview guide contained a series questions related to leisure use, friends, involvement in delinquent activities, recreation needs and interests, and constraints. Questions specific to leisure included:

Tell me about your social background (family, school etc).

What is the meaning of leisure to you?

How do you send leisure?

Who do you spend most of your leisure with?

What are the types of recreation activities you currently do? What are your recreation needs?

Can you explain what factors lead you to commit (assault, assault, etc)?

Strategy of Analysis for Qualitative Data

Qualitative data analyzed qualitatively. Each interview was digitally taped and transcribed verbatim by the authors after the interviews for analytical purposes. Then verbatim transcripts of all the tape-recorded individual interviews were prepared. As indicated by Strauss and Corbin (1990) the meaning elicit later when analyzing the data is usually contextual so it is imperative that the interviews are transcribed verbatim. In the present investigation, once the interviews were transcribed, and then they were read again during the listening to the recorded data and determined relevant theme ideas that were common across interviews. The transcripts were then re-read several times and the sub-themes were initially identified and coded into the general theme categories. Careful notes were made of nonlinguistic expressions or non-verbal data such as sighs, exclamations, tone of voice, pauses and laughs, which further enrich the content of the data (Strauss & Corbin, 1990). Verbatim transcripts of the individual interviews were supported by displays some of excerpts and quotes throughout the findings of this study.

B. Quantitative Methodology

Quantitatively, subjects were surveyed using a questionnaire consisting of:

Sensation Seeking Scale

The four-items "Brief Sensation Seeking scale-4" was used , which had good reliability and construct validity in other surveys of adolescents (Stephenson et al, 2003; Thrasher et al, 2006). The four items are: (a) "I would like to explore strange places"; (b) "I like to do frightening things"; (c) "I like new and exciting experiences, even if I have to break the rules"; and (d) "I prefer friends who are exciting and unpredictable". Participants were asked to rate their agreement to each statement on a Likert scale from 1 to 5 (1 = Strongly Disagree, 5 = Strongly Agree), with higher scores indicating greater sensation seeking tendencies. Those items had high inter-item reliability in the current study's sample ($\alpha = 0.861$).

Delinquency Scale

For the purpose of this study, delinquency scale comprised the most common types of delinquent activities among adolescents in Saudi Arabia, which were 24 items with five subscales: theft (6 items), assault (5 items), vandalism (2 items), traffic violations (5 items) substance use (4 items), and arrests (2 items).

The self-reported measure of delinquency adopted for this investigation was a modified version used by many aoutherss (e.g. Mainous et al, 1996; Jelalian et al, 1997; Houghton and Carroll 2002; Vassallo et al, 2002; Baron, 2003; Fitzgerald, 2003; Charles & Egan, 2005) as involving adolescents. However, Scale's items was originally for use in western societies so some items had to be altered to make the scale suitable for use in those western societies. Therefore, the self-reported delinquency scale was modified to make it more understandable and suitable for Saudi adolescents by replacing some of the wording in some items. For instance, items related to dollar \$, the amounts were replaced to Saudi Riyals (RS); others related to the theft were changed, the phrase "Stolen" was changed to "taken without owner's permission" and "shoplifted" was changed to "Taken something from a store

without paying for it"; the phrases *shesha*, hashish and stimulants tablets were added, to ensure students were clear about the meaning of these items.

High reliabilities of 0.974, 0.948, 0.959, 0.916, 0.964 and 0.983 were obtained from theft, assault, vandalism, traffic violations, substance use and arrests respectively. The whole reliability for the total of delinquency scale was 0.988.

Recreation Needs Scale

For the purposes of this study, leisure and recreation needs were classified as sporting activities (Playing soccer, Playing tennis, Swimming, Playing volleyball, Playing Billiard game, Ice skating, Fitness programs "e.g., aerobics", extreme recreation activities (Mountaineering, Motorcycle racing, Car racing, Skydiving, Boxing, Martial arts "e.g. Karate, Judo, Kung fu, Tae kwon do", art or drama (Attending a concert or play, Participating in a dramatic play, Sculpting or painting), outdoor activities (Camping, Hunting, Horse riding, Bicycling, Skateboarding). Participants were asked to reflect their desire to participate in leisure and recreation activities that currently they can't do in their leisure time. In the last column of choices was "not applicable", this choice for if the activity does not apply to them (they can do it in their leisure time without any barriers). Responses were coded from 0 for not applicable to 5 (0= not applicable, 1 = strongly dislike, 5 = strongly like). Cronbach's alpha of 0.950, 0.962, 0.877 and 0.969 were obtained from sporting activities, extreme recreation activities, art and drama, and outdoor activities respectively. The whole reliability for the total of recreation needs scale was 0.980.

Data Collection Procedure

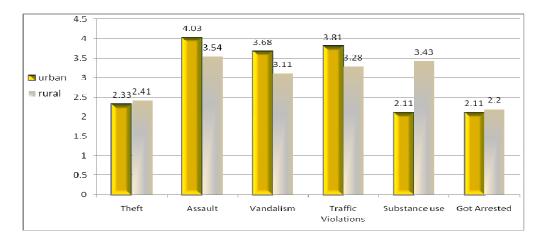
Data collection derived from a survey of 2168 high school students (16- 18 year old), 1676 adolescents were randomly recruited from urban areas, while 492 were recruited from rural areas.

Sum total of 2600 questionnaires were distributed, 339 questionnaires were sent out, and 2261 were returned. However, 93 of the questionnaires were deemed unusable and were excluded, because of incomplete information (n= 72) or the participant was over 18 years of age (n= 9). In addition some responses were used one pattern of the answer on Likert scale, which means, the participant was unserious (n= 12). In all, 2168 questionnaires were usable.

III. Quantitative Findings

A. Geographical Locations Differences Geographical Locations differences in Delinquency

Figure 1: Delinquency behaviours among urban and rural adolescents (urban n= 1676, rural n=492, Overall= 2168).



According to figure (1), urban adolescents reported that the higher mean values of delinquent activities were assault (M= 4.03), followed by traffic violation (M= 3.81), vandalism (M=3.68), theft (2.33), got arrested (2.11), and substance use (2.10). While for rural adolescents, the higher mean values of delinquent activities reported were assault (3.54), followed by substance use (3.43), traffic violations (3.28), vandalism (3.11), theft (2.41), and arrests (2.20).

	Table 1:	Geographical	locations	differences	in delin	quency	behaviours.
--	----------	--------------	-----------	-------------	----------	--------	-------------

Delinquency behaviours		n	Mean	SD	t-value	Sig
Theft	urban	1676	2.33	1.522	1.07	0.282
Theit	rural	492	2.41	1.561	1.07	
A 16	urban	1676	4.03	.873	11.07	0.001*
Assault	rural	492	3.54	.829	11.07	
Vandalism	urban	1676	3.68	1.207	9.28	0.001*
vandansin	rural	492	3.11	1.115	9.28	
Traffic violations	urban	1676	3.81	1.033	10.24	0.001*
Traine violations	rural	492	3.28	.935	10.24	
Colortonos	urban	1676	2.107	1.541	17.00	0.001*
Substance use	rural	492	3.43	.943	17.08	
Amasta	urban	1676	2.112	1.568	1.00	0.276
Arrests	rural	492	2.20	1.608	1.08	
Tetal delia succession	urban	1676	3.05	.972	0.22	0.820
Total delinquency	rural	492	3.04	.775	0.22	

Table (1) displays the test significance of differences in the degree of involvement in delinquent activities by place of residence (urban and rural) by using a t-test. Results showed that there was no significant difference between urban and rural adolescents in total delinquency; however, the patterns of delinquency are not homogeneous across locations. Urban adolescents reported significantly higher rates of involvement in assault, traffic violations and vandalism offences. However, substance use was significantly higher in rural areas than urban areas. While, theft offences and arrests there were no significant differences between them.

Geographical Locations differences in Sensation Seeking

Table 2: Geographical locations differences in sensation seeking

		n	Mean	SD	t-value	Sig
Sensation seeking	urban	1676	3.84	1.087	0.62	0.001*
	rural	492	3.31	1.059	9.63	0.001*

The means and standard deviations of the sensation seeking scores for both groups is listed in Table (2), the mean values of sensation seeking for overall of adolescents was high (3.72) with standard deviation (1.104) and exceeded an average of Likert scale (above 3= agree). This indicates that adolescents either in urban area or in rural area had high feeling of sensation seeking.

Referring to table (2), there is a significant difference between urban and rural adolescents (p-value=0.001) and t-test value (9.63) was significant at a level of significance less than (0.01). Urban adolescents, on average, scored higher on the sensation seeking (M = 3.84; SD = 1.087) than did rural adolescents (M = 3.31; SD = 1.059).

B. Association between Sensation Seeking and Delinquency

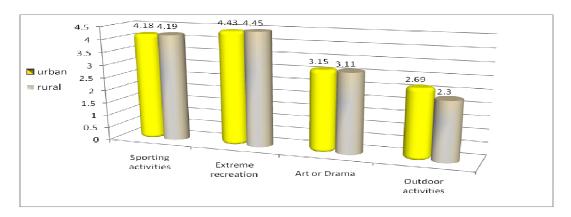
Table 3: Summary results of Correlation Analysis between Leisure Boredom and delinquency (urban n= 1676, rural n=492, Overall= 2168)

			Sensation Seeking				
			r	Sig			
		urban	.252	0.001*			
	Theft	rural	.043	0.342			
		overall	.196	0.001*			
		urban	.895	0.001*			
	Assault	rural	.789	0.001*			
		overall	.878	0.001*			
		urban	.724	0.001*			
1	Vandalism	rural	.612	0.001*			
ાલ્ડ		overall	.712	0.001*			
Delinquency		urban	.750	0.001*			
լել	Traffic violations	rural	.585	0.001*			
<u> </u>		overall	.728	0.001*			
)		urban	.228	0.001*			
Ι	Substance use	rural	.600	0.001*			
		overall	.181	0.001*			
		urban	.221	0.001*			
	Arrests	rural	.069	0.124			
		overall	.178	0.001*			
		urban	.597	0.001*			
	Total delinquency	rural	.551	0.001*			
		overall	.576	0.001*			

According to table (3), sensation seeking is an important predictor factor of delinquent behavior in urban adolescents on assault (r=.895), traffic violations (r=.750), vandalism (r=.724), substance use (r=.228) and arrests (r=.221). Sensation seeking was also an important predictor factor of delinquent behavior in rural adolescents on assault (r=.789), vandalism (r=.612), substance use (r=.600), and traffic violations (r=.585).

C. Leisure and Recreation Needs

Figure 2: The recreation activities the adolescents of urban and rural would like to participate in.



As can be seen in figure (2), extreme recreation activities was the highest of recreation needs for both areas (urban=4.43, rural=4.45), followed by sporting activities. Whereas outdoor activities was the lowest recreation needs for both areas (urban=2.69, rural=2.3).

IV. Quantitative Findings

A. Social Background

Robertson (1999) has argued that pathways to delinquency are complex and not readily understandable through investigation of any single factor (Wasserman et al, 2003). A review of existing literature highlighted that family background is an important variable to consider when investigating specific aspects for those who engage in delinquent behaviors and disrupted family background such as family size, family income status, degree of parental supervision, marital conflict, parent criminality, and divorced parents cannot be ignored (Robertson, 1999; Cookston, 1999; Kumpfer, 1999; Smith, 2004 Redding & Arrigo, 2006). From the stories of interviews regarding their social background, the following common themes were emerged:

1. Family Environment

Although there is no evidence in these data to suggest that family environment caused these individuals to engage in delinquent experiences. However, certain factors related to family appear to have contributed to a climate that may have helped foster delinquency (Robertson, 1999).

Almost, all of the participants in the interview came from relatively large families. The average size of the family for the urban participants was 6-14 and for the rural participants were 8 to 13 individuals. About half of the families had experienced divorce. Some of them their fathers returned back to their mothers, while other was not. A Quarter of the adolescents' fathers had another wife or more and most adolescents' mothers had experienced physical or verbal abuse from their fathers. The relationships with their mothers that the adolescents described were generally positive and closer relationships than fathers. On the contrary, adolescents disagreed with their fathers and their way of thinking. Most adolescents who were their father had another wife complained that their father prefer and pamper their siblings from the other wives more than them.

2. Family Leisure

Robertson (1999) indicated that shared family leisure experiences can serve as a positive deterrent to delinquent behavior. Although, the leisure activities that were shared with family seemed to be satisfying experiences, the amount of time the participants spent with family was largely determined by age. For example, in most cases, when the participants were children, leisure-related experiences with family consisted of frequent events such as attending relatives' occasions, camping in the desert, hunting, or playing sports in the house yard with their fathers and these events seemed to be beautiful memories as they described.

However, when participants grow up they become less attached to their parents than before. Therefore currently (in adolescence), there was little evidence in the data to suggest that the fathers took much interest in the leisure activities of their sons. Moreover, they acknowledged that parents were not interested in assisting them to find recreation activities whether inside or outside of the home and family.

"I remember, when I was young I was always play football with my father, and go sometimes for hunting. It was really beautiful memories"

"I don't know what have changed between the past and now. Before my family was more coherent, before leisure time was always planned by my parents for many things to do for example trips, going to "Malahi" [Fun parks], and visiting the relatives"

3. Parental Supervision

Despite the fact that adolescents who don't receive adequate parental supervision are more likely to engage in delinquent activities (Cookston, 1999), parents generally were not aware of the leisure activities in which their children engaged. Participants commonly expressed the view that they rarely communicated or spend their leisure time with their parents and siblings.

"No, they [parents] never ask me where I had been either in the day time or at night. Because in fact we rarely talk"

"My father says that my friends are bad friends, but when I go out with them and he ask me where I was, I always made up excuses"

In polygamy cases, participants generally claimed that most of fathers' times spend with their children from other wife. While in cases where the parents were separated, participants often divided their leisure time in visiting their divorced mothers. This caused for most of them to use this reason as an answer when their fathers ask them "where had you been?", but in fact they were with their friends. All participants who had divorced parents live with their fathers with exception of one participant from urban area, who never knew his father and grew up alone with his mother after his father passed away.

My mother and father were divorced when i was thirteen years old. From that time my leisure time spend in visiting my mother, that's when I really started getting into trouble and I became very aggressive (his sound was sad) and always do fighting with other people, I think that if my mother and father would have stayed together, I wouldn't have gotten involved in delinquency behaviours".

I don't have anybody care about me. I mean my father care about his sons and his time always spend with his sons from his second wife and my Mom remarried after my parents split up and she also has sons. I feel like I am lonely and isolated in my family"

"Yeah, many times, when my father does not allow me to go out with my friends, I say for him, I am going to my mother but then I go out with my friends"

Other cases that had not separated parents especially in urban area, work circumstances of their fathers caused lack of supervision, they described their parents' work circumstances as "camping out at the work".

"The home is like a hotel for my father, he leave early in the morning to the work and come home late at night I see him few minutes before the sleeping"

"All his life [father] camping out at the work, I don't know why he doesn't be bored from the work, all his care about is earning money"

However, for some adolescents, time spent with parents was seen as more of a duty than a chosen way to spend free time and it usually occurred when the adolescents came in at night-time and watched television with their parents:

"When I was a child I used to, but now no, I am not a kid, I have independence life".

"We just watch TV together [parents] at night, but we never talk"

"I don't like to sit with them [parents]; I always try to avoid sitting with them.....They always hear me the advices, they deal with me as a child"

4. Familial Factors and Delinquency

Fagan and Najman (2003) have shown that family members have influences on adolescent delinquency. In the present investigation, nearly two- thirds (66 %) of the sample said that others in the family, usually a brother or cousin, also had done same delinquent activity so in the past. Three rural adolescents felt (at the beginning) that they have been strongly influenced by their fathers through watching their fathers who were heavy users the same substance which they used.

"I use" Abu kowssen" [captagon] a little bit. My father was a user. He was arrested and imprisoned for five years in case of drug trafficking".

"My father once caught me when I was imitating him when he smokes [he laughs]....I brought the tea ...because he [father] usually smokes when he drinks tea".

"Usually my father ask me to prepare the" Shisha" for himSometimes I use it without his seeing me"

However, the vast majority of the adolescents reported that their delinquent activities are wrong behaviours, and they weren't accepted that his brother or any one of the family members imitate him or commit such delinquency behavior.

I know that my acts and behaviours are wrong, and nobody wishes his siblings or anyone of my family do such wrong behaviours. But sometimes the individual may find justifications for his behaviours. You know, when you have leisure time and in that leisure time you don't know what you can do or nowhere to go and feel bored. So, as a result of leisure boredom, you don't think about your behaviour either was good or bad, just you need to escape from boredom and have a laugh".

"Of course I don't like my siblings imitate me. But you know the boredom in leisure time, if you don't have anything to do. It is boring [leisure time] I just want to do something to spend the time no matter whether good or bad thing".

5. School background of Participants

Although the rural students were more motivated than the urban ones, at least in the beginning years of the high school, there seemed to be a lack of interest in both group in study matters. The vast majority of adolescents reported that they have had problems at school (with teachers, management of school) and they said that their relationships with teachers were poor while their relationships with classmates were good.

"Almost, most of my classmates from my best friends, but the teachers, although their teaching is bad, they always scold me when I could not understand the lesson or even when I inquire about something regarding the new lesson".

"My relationships with my colleagues at school generally are excellent, but with teachers and especially with school management is bad. They always [teachers] say that I am much chatter in the class and any problem occurs in the class they accuse me and send me to the school management".

Although, all adolescents had expectations to graduate from secondary school stage and most of them have plans to attend university and get a good job. However, they did not have a clear idea of their career plan and life goals. They reported that the only aim of education and work was to possess money and basic things such as car, and house.

"There is no specific plan about my future job, but my ambitious is a good job with a good salary"

"Yes money is important for me. I think money is important for every one in this world, even for you. Is it right?"

According to participants' perspectives, rural parents generally were more interested than urban ones in school matters.

"Actually, you know the rural's fathers in general, there are competitions between them about their children. My father frequently talks with me regarding my study, he always says to me, make me proud of you in front of the relatives"

"Always when he see me watching TV [His father] he says go for studying the school's lessons better than sitting on the TV".

6. School Attendance

Running away from schools and skipping schools were more mentioned by urban than rural adolescents. It is clear from the interviews that rural adolescents more supervised by their fathers or big brothers.

"I skipped from school almost five times, usually after the break time between the lessons"

"Nobody had seen us, we jumped out of school's wall, and then we got friends car beside the school wall".

"No, no, oh, my father will kill me if the school tells him that I was absence"

"I have brother at the same school ...if they tell him he will tell my father, my father is interested regarding of completing my study and get a good job"

Surprisingly, despite most adolescents at both locations were unsatisfied from their sport teachers because they not allow them to play activities that they would like to do, however, the vast majority of adolescents don't like to be absences at same day when they have a sport lesson:

"I run away from school many times... exactly, I can't remember how many....we don't like to run away when we have a sport lesson, we enjoy at that day"

"The best lesson is sport lesson; I don't like to be absence at that day".

B. How Adolescents Spend Leisure

From the stories of interviews regarding the how they spend their leisure time. Their leisure activities were varied, ranging between activities inside home (e.g. watch TV, internet, play station games), and outside home. It was observed that "To be with friends" and "Bored at home due to no exciting things at home" were commonly given as the reasons for their engagement in leisure activities outside the home. The following are some of their comments on their reasons of engagement in leisure activities outside the home.

"I want to be with my friends, my brothers also have friends, I am always alone at home, I feel bored, so I come out to enjoy with my friends"

There is nothing exciting to do at home; I just watch TV or sleep. I feel bored at home" "Too bored at home, I don't like sitting for a long time at home…there is nothing to talk with my parents about. Really they don't understand me, but my friends are completely different. We discuss our problems, respect each other, and even in the quarrels [with other people] we become together and help each other".

"I don't know why, ah, but I get bored sitting at home, too, so I like to get out and enjoy myself"

Urban adolescents get better chances to be out with friends. Time with friends for urban participants was usually spent 'hanging around' outside the home. Only, for few times, time spent with friends was inside the home.

"Most of my meetings with my friends is outside the home, I remember only for few times we met inside the home ...We meet and watch TV or play station games upstairs"

Figure 3: Some of Adolescents activities in Shisha cafes



Figure 4: Seating on the streets' pavements



Among rural participants, time spend with friends were inside and outside the home because most rural adolescents could not be absent for a long time or can not repeat their absence of the house for many times from home especially at the day time. As they described they will be asked about the reasons of being late from the home and sometimes will be punished by their fathers.

"I cannot be out and be absence from home for a long time, because my father will note that and he will scold me and sometimes hit me.

"For a long time, I cannot. He always ask my brothers about me....by phone, despite the fact that most of his time spent at another home [at the second wife's home]".

While among urban adolescents seemed to have had more friends and spend a long time with friends and absence from home even for a long period of time hadn't been a matter for them.

"If I had been all the day time out the home, nobody asks me, where I have been"

"In fact, my father doesn't have anytime to ask me where I had been, all time he busy"

For rural participants, the social gathering with friends was mostly at homes or at their neighborhoods. While, among urban participants, going out to restaurants, *Shisha* cafes, and hangings out by car were shown to be the social gathering with their friends.

"Most of my leisure time when I go out is spent with my friends; we are group, almost we at the same age...... We just go over across the road, and then we find a place to sit on it and talk, usually Shisha cafes and sometimes on the streets' pavements".

"Friends, yeah......I don't know, just walk around....it's like you have nothing to do all day and then you just go out with friends to find some interesting things".

"We usually hanging out by car around the city ...go dining together [restaurant], that's all, nothing else to do as long as I remember"

Always I go with my friends usually, we go to Shisha cafes, and we watch movies or watch live sports there when we smoke Shisha'.

The social gathering with their friends on the street's pavements, in the cars and *Shisha* cafes were justified because there was nowhere or other places they can gather.

So it is believed that those places had facilitated their gathering with their friends. The following pictures are more eloquent than any words.

"There are no alternative places for young people, this reason which push us to go to Shisha cafes"

"We cannot find any place like this place [street's pavement] where we can gather"

"Can you find or suggest any way or place instead of those places, where we can always and freely gather"

"It is hardly to find other places to be with friends"

C. Delinquent Adolescents' Attitudes towards Leisure

Most participants had seen leisure as the bored time. Nothing to do' was indeed the most commonly used phrase during interview, and emerged as the most prominent source of concern and complaint among the adolescents.

"In my leisure. Um, I get bored and if I don't have anything to do and, ah, that can, ah, I can get stressed from that 'cause I am really bored and I want to do something, go somewhere, and there is really nothing, nothing going on"

"In my view, the young people have fewer opportunities to enjoy; we don't know what we could do. There is nowhere to go in leisure, boredom besiege us from everywhere"

"....Nothing to do except watching TV, hanging around streets, or sitting on the sidewalks"

D. Recreation Experiences and Needs

Nearly, all participants previously participated in variety of recreation activities usually at the empty places at their neighborhoods. However, they believed at this age that they became enough old than before, thus, they currently can not do such activities because there are no places suitable for them.

"when we were young (at primary and middle school stage), we used to play football in the neighbourhood' streets.... Now it is difficult because we became youth.....We need planted football playgrounds"

"We were competing in the volleyball with the other neighbourhoods' teams, yeah; it was championship in Ramadan..... The championship was at the neighbourhoods' level...we organized it by our self....unfortunately, the neighbours complained, then the

police removed the net of volleyball...Now there is nowhere to go, we just end up going home because there is nowhere to go at all".

"I had been play football when we were young....but currently I can't really play football; you know why because there are no planted playgrounds encouraging you to play"

"Before, I mean when we were children, we were swimming a lot in the ponds or tanks [these tanks use for watering cheeps]....no swimming pools, no gardens, where we could go"

However, generally speaking both the urban and rural participants in the interviews were unsatisfied with the way that spent their leisure time. The stories of the participants regarding recreation activities revealed that none of them whether were urban and rural participants currently participate in recreation activities.

"Where are the recreation activities to participate in? There are no recreation activities at all, you know at all"

"Nothing, ah, nothing, there are no offered recreation activities for us at our neighborhood and as I know at other neighborhoods, only places for families, every thing for family while for us, nothing"

Although urban had many leisure facilities than rural areas, however, in urban, most of the recreation clubs only permit the access or get memberships for who their aged above 18 years. However, in rural, there is a few recreation clubs with old facilities. In addition to that all adolescents especially from urban keenly complained that most recreation places and even malls were allocated for families whereas, no places for youth. It should note that in Saudi Arabia, the government system does not allow for singles for entering the places which allocated for families.

"Every place only for families ...it is boring, we don't know why they wouldn't build places to be allocated for us; they want us kissing their ass to do that"

"I am bored here isn't anything else to do in the area.... The sport clubs and things like that are for the over 18 years of age"

"When you want to go to the gardens "Parks",....even sport clubs you will find that the security men say to you that this places just for the families or who are their aged more than 18 years... In Urban there is no places for youth.... I am just hanging around with nothing much to do"

"I always try to find something to do but it isn't easy..... I went once to Alsamoud club [one of the rural clubs], It idiot club, there was only table tennis covered by the dust" he laughs, ironically.

".....The sport club that we have, is years old, and I'd like to see them having a new one with more facilities..."

E. Sensation Seeking as a Major Contributor to Delinquency

Indeed, from the interviews, nothing to do and seeking for excitement "having a laugh" in leisure were major contributors to all types of offences with exception of theft offences in rural area as will be discussed later. Although, many other factors have emerged influencing the engagement in certain delinquency activities such as peer influence, impress others and lack of strict rules and regulation. However, the purpose of this paper concerned with sensation seeking and delinquency.

As previously mentioned, participants at both locations did not appear to possess the ability to access socially acceptable activities for themselves that satisfied their needs. Involvement in delinquent activity seemed to be helping to escape from leisure boredom and providing them with the desired sensation of arousal.

"Sometimes" wallahi" from "Al-tafash" [Boredom], there is no reason else, we make up the problems with others to fight with. Only from boredom and to fill our time, we don't know what other exciting thing we can do. When my friends and I had nothing to do we gathered in the neighbourhood park and got into brawls with the strangers passing by"

- "And did it for a laugh"
- "There're no enjoyable activities it's crap- that's why we get done."
- "There's nowhere to go, you know, nowhere to enjoy and spend leisure, and um you just sometimes get bored and just start doing that for the buzz and laugh"
- "There's fuck all to do, right. So everybody just decides to get participated, because it's a laugh"
- "... until the early hours [being with friends], until 2-3 in the morning... using" Nibeilah" [dart] and make the public lamps our goals to see who is the best and winner who hit the target accurately...We don't care, we were bored; simply boredom"
- "'Yes that's true, can you tell me about any other enjoyable alternatives to do in our leisure. Of course you cannot. When you ask any one of them [Altafheet doers, see figure 4] their answers will be like this....The movements which I do with my car need a strong heart, I can apply all movements such as back movement and death movement on the speed of 120 K/h".



Figure 5: Altaf'heet activity

F. Delinquent Adolescents' Perspectives for giving up the Engagements in Delinquency Behaviours

Indeed, it is interesting to note that when adolescents who had been involved in delinquent activities were asked what they would choose to do if they could do anything at all rather than involvement in their delinquent activities. On a positive note, participation in organized recreation activities was seen by the vast majority of sample as a legal alternative to involving in delinquency. Despite the previous claims by participants that "Leisure time is boring", however, they mentioned that leisure will be enjoyable time if they have been provided with good leisure facilities and they reported if they have "organized recreation activities" they would not be bored.

"Recreation places are required for fun and enjoyments, that's let us know how to spend our leisure time instead of hanging round and that, if we have recreation places, we will not be bored"

"First, we need recreation places. Those places must be provided with variety of activities such as football pitches, swimming pool, and don't forget also with place for car racing to practice my hobby"

"Wallahi [he swears] if we would have had organized recreation activities to play with my friends, I would have spend all my leisure time there"

"There is nothing better than clubs with excellent facilities. Entertainment, fun, practice sport activities (such as football, swimming, material arts, etc) as well as meet friends there".

Interestingly, some adolescents who had been involved in delinquent activities have expressed their desire to participate in recreational activities which were similar to their delinquent activities. For example, adolescent who had been involved in traffic violations they prefer to participate in car-related activities.

"I am a professional driver.... I and my friends always hope that the officials allocate a place for practicing car racing...... it really fun".

He completed,

"Even Altaf'heet, why they haven't been adopted it as sporting activity and organize it as sport Championship under particular safety instructions and laws"

Another participant who had been involved in assault said,

"I like Brusli's movements [karate hero from Japan] He is brave, I wish to find a club which training me on such movements".

Enjoyment was clearly a major motivation among urban and rural participants for expressing their desire to participate in recreational activities. Moreover, as Allison & et.al (2005) indicated that socializing with peers occupies a central place in the lives of adolescents and they are more motivated to participate in sport activities with friends. Many of the participants expressed that they would like recreation activities to be organized for them not only for enjoyment but also because these activities giving them a chance for being with their friends.

I like football and I hope from them provide our neighbourhood with planted playground for playing and making us meet with friends there"

"To enjoy with my friends"

"I have a suggestion, why they don't organize championship for volleyball and this championship to be supervised by officials from the General Presidency for Youth Welfare"

"Yes I like [Recreation activities to be organized], I just want to be with my friends that is more important than anything else"

Others commented on enjoying the sense of challenge between friends. They preferred recreation activities to be organized for them to compete against others. It was noticed that they were motivated to prove themselves to their peers.

"Challenge between friends, fun and gives the opportunity to highlight my skills"

"Not only football, if there is competition and enthusiasm at any sport, and you win something, it makes you feel good and proud".

G. Recreation Activities are not Alternatives of Engagement in theft Offences in Rural Area

It was observed that theft offences for the majority of urban participants, organized recreation activities were alternatives to involving in these theft offences. However, among rural adolescents, the case was different. The following comments were clarified why they cannot stop their theft even though if they will be provided with organized recreation activities.

"If my financial circumstances will not be changed, it is difficult to stop it. Believe me; I don't like to steal something that plus and above my need. I only steal something according to my need, ah, only as a result of my need"

"Have you thought, I committed the theft because I love it?. Trust me, never, never at all. You know which kind of scandal he will face who will be arrested in theft, especially among Rural's population".

Wallahi [he swears] we steal because of we live under difficult financial circumstances, my father is a retired army member, his salary is barely enough for food and drink only.....we steal anything that we think it is valuable, we sometimes also steal mobile phones from people, cars, and even from shops, and then we sell them to other individuals to get money.

V. Discussion by Combining Quantitative and Qualitative Findings

A. Geographical locations Differences

1. Delinquency

The results showed that the most common types of delinquency acts for urban adolescents were assault followed by traffic violations, vandalism, theft, arrests and substance use. While, for rural adolescents the most common types of delinquency acts were assault, followed by substance use, traffic violations, vandalism, theft, and got arrested.

The result found that assault offences were the most common types of delinquency acts among rural and urban adolescents. This is not really surprising because involvement in assault offences is very common among adolescents in many parts of the world (Houghton & Carroll, 2002; Gentile et al, 2004; Chapell et al, 2006). This has also been shown in recent study done on Malaysian adolescents which found that the majority of male adolescents had been involved in assault (physical fights) in the past 12 months (Lee et al, 2007).

This study found that there was no significant difference between urban and rural adolescents in total delinquency (p-value=0.820 and more than 0.05) and t-test value (0.22) was not significant. Nevertheless, it should be noted that the patterns of delinquency are not homogeneous across locations. For example, the rates of assault, traffic violations and vandalism were significantly lower in rural area than urban area, but substance use was significantly higher in rural area than urban area. However, there were no significant differences in theft offences and arrests between rural and urban adolescents. These findings are inconsistent Lee et al's (2007) study which found that there was no significant difference between rural and urban Malaysian adolescents in all their study variables (assault, substance use), but the study findings are consistent with Elgar et al study (2003) which indicated that urban Canadian adolescents significantly higher in behavioural problems regarding assault offences than did rural adolescents. However, Elgar et al (2003) have found urban adolescents were significantly higher in substance use than rural adolescents which inconsistent with this study finding.

Conversely, Lutfiyya et al (2008) found that substances use prevalence is significantly higher in rural area than in urban area. It seems likely that rural region contribute to increased rates of substance use. For example, a study on Indiana adolescents found that adolescents residing in urban and suburban areas were twice as likely as those from rural areas to be aware of media messages about the dangers of substance use (Doescher et al, 2006). Naing et al (2004) found that mass media was the best information source for the Malaysian adolescents to acquire knowledge about negative aspects of the substance use. Therefore, rural adolescents may have experienced less exposure to anti-substance advertising campaigns that can create an environment in which substance use is considered less acceptable (Lutfiyya et al, 2008). This explanation would be consistent with the finding from qualitative data that rural adolescents had lack of knowledge about substance risks.

"Um, stimulating bills is not a drug that can harm you It doesn't harm you in the same way as heroin and hashish".

"It is not addictive or leads to it, I can give up it at any time that I want, many of users were stopped using them when they wanted".

Unpredicted findings, they were also created a wrong picture in their brain about substance use. For example, they thought that Captagon bills provide their bodies with energy, helping for study and they considered using drugs as a source of pride and brave.

"It gives you energy and pluckiness; you can do anything you want... I remember once time we had bills and there was a police checkpoint in front of us. We were swallowed all the bills before we came the checkpoint...they inspected us and they didn't find anything with us, if it happen with somebody else he will be frightened and shaken... certainly, they make you a wake for a long time. That's help you to study hard".

"Wallahi [he swears] nobody can takes the white except the real men.....you feel they lives their atmosphere in the way what they planned without fear from anyone...about

me I cannot study without using them [Captagon bills], especially in exams days, they really help you to study well without fatigue from the study".

"Do you know who did these bills at the beginning? He is Hitler. Yeah, he was symbol of courage, leader of Germany in the past who almost seized the world at that time".

Moreover, it should be noted that most rural areas are the borders where there are active drugs smuggling a cross neighbouring countries. For example, northern borders connect the kingdom of Saudi Arabia with *sham* countries (Syria, Jordan, Lebanon, and Iraq) and Turkey. It has been cited by Turkish's study (Turkish Monitoring Centre for Drugs and Drug Addiction, 2007) that drugs, captagon or stimulants in particular, is produced in European countries and is smuggled to Saudi Arabia over Turkey. Therefore, this study suggests that lack of knowledge for substance use's risks and availability of drugs in rural area make substance use were significantly higher for rural adolescents who are high in leisure boredom compared to urban adolescents.

2. Sensation Seeking

The study found that the mean values of sensation seeking for urban and rural adolescents was high (urban=3.84, rural= 3.31) with standard deviation (urban=1.087, rural=1.059) and both groups combined was high (3.72) with standard deviation (1.104) and exceeded an average of Likert scale (above 3= agree), which mean that overall of adolescents were agree and reported high level of sensation seeking. This finding is agree with opinion of Zuckerman (1994) who noted that sensation seeking generally peaks in adolescence and diminishes in adulthood.

The findings of the present study revealed that urban adolescents were significantly higher in sensation seeking than rural adolescents. This can be explained by two speculations. Firstly, from the interviews, urban adolescents had more leisure opportunities to adolescents (passive and social leisure activities with friends) that make them expanding their interest areas, and lead them to expect more leisure opportunities which in turn increase their sensation seeking. Secondly, despite the availability of recreation facilities in urban compared to rural. However, most of these recreation facilities weren't allocated for adolescents. Thus, urban adolescents can see these recreation facilities but they couldn't participate. Therefore they expressed more sensation seeking than did rural adolescents.

B. Sensation seeking and Delinquency

Among urban adolescents, the result showed that significant associations were found between sensation seeking and the all delinquency behaviours. Highlighted by the interviews was the fact that sensation seeking in the lives of these adolescents who had been involved in delinquency behaviors was as result of boredom and due to seeking for excitement. Thus, these associations may be explained as further explored by interviews that those delinquency behaviours were committed to satisfy their needs and reduce their boredom which consistent with the sensation seeking theory (Zuckerman, 1994), when leisure doesn't meet adolescents needs, they get bored, they participate in delinquent activities as a means of reducing boredom and as sources of arousal.

While among rural adolescents, the result indicated that significant associations were found between sensation seeking and the all delinquency behaviours with the exception of arrests and theft offences which were no significant. The findings of no significant association between sensation seeking and theft offences in rural area support interviews findings which showed that the motivator for committing theft in rural area was poverty. Therefore, theft offences were not a choice for who are high in sensation seeking. As arrests in rural area, it was observed by the rural interviews they have agencies or individuals which help them in case if they arrests due to the locals all being known to one another.

"My cousins and my relatives, most of them their friends work in police sector, when any problem happen, I phone them then they phone their friends"

"As you know, Rural is small. That's impossible to find anyone who doesn't know someone in the police sector"

Although, sensation seeking had high positive relationship with participation in delinquency behaviours, however, the relationship between sensation seeking and arrests was low for urban adolescents and was not significant for rural adolescents. These finding can be explained as mentioned by Houghton and Carroll (2002) changes in juvenile arrest rates or convictions do not necessarily reflect changes in delinquency. In other words, high level of delinquency does not necessarily translate into highly arrests rates because the police don't know about all offences which have been committed by adolescents. Research has shown that the majority of individuals involved in delinquency behaviours but because they have not received an official caution or warrant or reach incarceration, they do not become part of the official statistics on delinquency ((Dryfoos, 1999, cited in Houghton and Carroll 2002).

The result showed that high sensation seeking had more of an effect on urban adolescents' participation in delinquency behaviours (theft, assault, traffic violation, vandalism and arrests) than did Rural adolescents. This may be attributed as explored by interviews. First, as indicated from the findings of the individual interviews, boredom and looking for arousal had one of greatest reasons of engagement in activities outside the home and urban adolescents were more likely to be outside the home even for a long time in comparison with rural adolescents. From the interviews, it was easily noticed that the vast majority of delinquent activities were occurred outside the home and they always did so away from family surveillance.

Second, socializing with friends was particularly most common for urban adolescents than rural ones especially outside the home. This can be explained because urban adolescent were significantly higher in sensation seeking than their urban counterpart which are consistent with Weisskirch & Murphy (2004) who suggested high sensation seekers tend to interact with more people as well as perceive that having many friends provides stimulation in their lives. However, Elgar et al (2003) found that urban environments provide greater opportunity to join deviant peer groups than rural ones.

The findings of high sensation seeking had more of an effect on substance use for rural adolescents in comparison with their urban counterpart may be explained because lack of knowledge for substance use risks and availability of drugs in rural area make substance use were significantly higher for rural adolescents who are high in sensation seeking compared to urban adolescents. This idea was supported by the qualitative findings since rural adolescents believed that Captagon bills provide their bodies with energy, helping for study as well as they considered using drugs as a source of pride and courage.

C. Recreation Needs

The findings revealed that nothing to do was indeed the most commonly used phrase during interview, and emerged as the most prominent source of concern and complaint among the adolescents.

The study found that extreme recreation activities were the first desire of recreation activities for both locations to participate in, followed by sporting activities, art or drama and outdoor activities. As noted in the present study, rural and urban adolescents were scored high levels of sensation seeking. Therefore, they scored extreme recreation activities as the first desire of recreation activities because such activities sustain and fulfill their thirst for excitement (Malkin & Rabinowitz, 1998; Schrader & Wann, 1999; Kajtna & Tusak, 2004), which supported the findings of Zuckerman (1994) who concluded that those who are high in sensation-seeking seek out additional, novel, exciting activities or the willingness to take physical risks to fill their leisure time (Greene & Krcmar, 2005).

It is perhaps hardly surprising; some adolescents who had been involved in delinquent activities have expressed their desire to participate in recreational activities which are similar to their delinquent activities. For example, adolescent who had been involved in traffic violations they prefer to participate in car-related activities. These findings are consistent with Light et al (1993) who suggested adolescents are generally choosing activities they enjoy and that 'fit' their talents.

VI. Conclusion and Recommendations

The results of the study revealed that adolescents committed delinquent activities not only as an escape-based coping strategy from boredom but because such activities were satisfied them by fulfilling their thirst for excitement. Considerable research suggests that stimulating recreation activities can be an alternative source of arousal for high sensation seekers because exciting recreation activities sustain and fulfill their thirst for excitement and provide the sensation seekers with the desired sensation of arousal (Malkin & Rabinowitz, 1998; Hansen & Breivik, 2001; Kajtna & et.al, 2004). In the present study, recreation activities especially extreme recreation activities were keenly required desires by urban and rural adolescents. However, the study found that there is a distinct lack of recreation and leisure facilities within both of the two geographical areas whether in extreme or sporting recreation activities. Thus, the study recommends expanding in establishing of recreation centers for adolescents to organize recreation activities such as sport recreational activities and extreme activities in particular that are interesting, accessible to urban and rural adolescents and make sure adolescents know about these programs by advertising through websites, newsletters, posters, and promotion in schools, to be socially acceptable outlets rather than their engagement in delinquent activities.

References

- [1] Allison, K.R., Dwyer, J.J.M., Goldenberg, E., Fein, A., Yoshida, K.K., & Boutilier, M. (2005) Male adolescents' reasons for participating in physical activity, barriers to participation, and suggestions to increase participation. *Adolescence*, 40(157), 155-170.
- [2] Al-Rmaih, S. R. (2006) Factors associated with *altaf'heet* phenomenon among Saudi youth, and preventive means: A comparative study for Urban, Jeddah, and Dammam. *Security Research Journal*, 15 (34), 171-229.
- [3] Baron, S. W. (2003) Self-control, social consequences, and criminal behavior: Street youth and the general theory of crime. *Journal of Research in Crime and Delinquency*, 40(4), 403-425.
- [4] Beyers, W. B. (2007) Cultural and Recreational Industries in Rural America: Opportunities for State Legislators. *The journal of Regional Analysis and Policy*, 37(1), 25-27.
- Byrne, T., Nixon, E., Mayock, P., & Whyte, J. (2006) The Free Time and Leisure Needs of Young People Living in Disadvantaged Communities. Research Briefing Children's Research Centre. Issue No.1. It is available to download at http://www.tcd.ie/childrensresearchcentre/index.php?id=130&pubid=159&mode =full 22, 323-342.
- [6] Caldwell, L. L., Smith, E. A., & Weissinger, E. (1992) Development of a leisure experience battery for adolescents: Parsimony, stability and validity. *Journal of Leisure Research*, 24(4), 361-376.
- [7] Caldwell, L.L., Darling, N., Payne, L.L., and Dowdy, B.B. (1999). Why are you bored?: A comparison of psychological and social control causes of boredom among adolescents. *Journal of Leisure Research*. 31: 103-121.
- [8] Cameron, M., & MacDougall, C. (2000) Crime Prevention through Sport and Physical Activity. In Graycar, A. (ed.).. *Australian Institute of Criminology Trends and Issues in Crime and Criminal Justice*, no. 165. Canberra: Australian Institute of Criminology.
- [9] Chambliss, D. F., and Schutt, C. R. (2003) Making Sense of the Social World: Method of investigation (Second Edition). Thousand Oaks, CA: Pine Forge Press.
- [10] Chandra, P.S., Krishna, V. A., Benegal, V., & Ramakrishna, J. (2003) High-risk sexual behaviour and sensation seeking among heavy alcohol users. *Indian J Med Res*, 117, 88-92.
- [11] Chapell, M. S., Hasselman, S. L., Kitchin, T., Lomon, S. N., MacIver, K. W., & Sarullo, P. L. (2006) Bullying in elementary school, high school, and college. *Adolescence*, 41, 633-648.
- [12] Charles, K.E., and Egan, V. (2005). Mating effort strongly predicts self-reported delinquency in a normal adolescent sample. *Personality and Individual Differences*, 38, 1035-1045.

- [13] Chen, L. J., Haase. A. N., & Fox, K. R. (2007) Physical activity among adolescents in Taiwan. *Asia Pac J Clin Nutr*, 16 (2), 354-361.
- [14] Cookston, J. T. (1999) Parental Supervision and Family Structure: Effects on Adolescent Problem Behaviors. *Journal of Divorce & Remarriage*, 32(1/2), 107-122.
- [15] Crimes in the United States.(2006).U.S. Department of justice. Available at: http://www.fbi.gov/ucr/ cius2006/data/table_36.html.
- [16] Doescher, M.P., Jackson, J.E., Jerant A., & Hart, L.G. (2006) Prevalence and trends in smoking: a national rural study. *Journal of Rural Health*, 22(2), 112-118.
- [17] Donaldson, S.J., & Ronan, K.R. (2006) The effects of sports participation on young adolescents' emotional well-being. *Adolescence*, 41, 369-389.
- [18] Eccles, J. S., & Templeton, J. (2002) Extracurricular and other after-school activities for youth. *Review of Education*, 26, 113–180.
- [19] Elgar, F. J., Knight, J., Worrall, G. J., & Sherman, G. (2003) Behavioural and Substance Use Problems in Rural and Urban Delinquent Youths. *Canadian Journal of Psychiatry*, 48(9): 633-636.
- [20] Fagan, A. A., & Najman, J.L. (2003) Sibling Influences on Adolescent Delinquent Behaviour: An Australian Longitudinal Study. *Journal of Adolescence*, 26 (5), 546–558.
- [21] Farmer, A., Redman, K., Harris, T., Mahmood, A., Sadler, S., & McGuffin, P. (2001) Sensation seeking, life events and depression. The Cardiff Depression Study. *British Journal of Psychiatry*. 178, 549–552.
- [22] Feldman, A. F., & Matjasko, J. L. (2005) The role of school-based extracurricular activities in. adolescent development: A comprehensive review and future directions. *Review of Educational Research*, 75(2), 159-210.
- [23] Fitzgerald, R. (2003) An examination of sex differences in delinquency Crime and Justice Research Paper Series. Catalogue no. 85-561-MIE, Ottawa: Statistics Canada.
- [24] Gentile, D. A., Lynch, P. J, Linder, J. R. & Walsh, D. A.(2004) The effects of violent video game habits on adolescent hostility, aggressive behaviors, and school performance. *Journal of adolescence*, 27, 5-22.
- [25] Greene, K. & Krcmar, M. (2005) Predicting exposure to and liking of media violence: A uses and gratifications approach. *Communication Studies*, 56(1), 71-93.
- [26] Gupta, R., Derevensky, J., & Ellenbogen, S. (2006) Personality Characteristics and Risk-Taking Tendencies Among Adolescent Gamblers. *Canadian Journal of Behavioral Science*, 38, 201-213.
- [27] Hannaford, S. (2005) Drinking, Smoking, Drugs and Sexual Intercourse Education and Influences. for Young People in Northern Ireland. *ARK Research Update*.
- [28] Hansen, E.B., & Breivik, G. (2001) Sensation seeking as a predictor of positive and negative risk behaviour among adolescents. *Personality and Individual Differences*, 30(4), 627-640.
- [29] Houghton, S., & Carroll, A. (2002) Longitudinal Rates of Self-Reported Delinquency of At-Risk and Not At-Risk Western Australian High School Students. *Australian and New Zealand Journal of Criminology*, 35 (1), 99-113.
- [30] Hussin, N. (2005) Juvenile delinquencies in Malaysia. Legal provisions and prospects for reforms. 4th World Congress on Family Law and Children's Rights, Cape Town, South Africa, 20 23 March 2005.
- [31] Jelalian, E., Spirito, A., Rasile, D., Vinnick, L., Rohrbeck, C., & Arrigan, M., (1997). Risk taking, reported injury, and perception of future injury among Adolescents. *Journal of Pediatric Psychology*, 22(4), 513-531.
- [32] Joinson, C., & Nettle, D. (2005) Season of birth variation in sensation seeking in an adult population.. *Personality and Individual Differences*, 38, 859-870.

- [33] Jones, M. B., & Offord, D. R. (1989) Reduction of Antisocial Behavior in Poor Children by Nonschool Skill Development. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 30(5), 737-750.
- [34] Kajtna, T., & Tusak, J. (2004) Some Psychological studies of high risk sports. *Kinesiologia Slovenica*, 10(1), 96-105.
- [35] Kajtna, T., Tusak, M., Baric, R., & Burnik, S. (2004) Personality in high-risk sports athletes. *Kinesiology*, 26(1), 24-34.
- [36] Kraft, P., & Rise, J. (1994) The relationship between sensation seeking and smoking, alcohol consumption and sexual behavior among Norwegian adolescents. *Health Education Research*. 9(2), 193-200.
- [37] Kumpfer, K. L. (1999) Strengthening America's Families: Exemplary Parenting and Family Strategies For Delinquency Prevention. Washington, DC: US Department of Justice, Office of Juvenile Justice and Delinquency Prevention.
- [38] Lee, L. K., Chen, P. C., Lee, K.K., & Kaur, J. (2007) Violence-Related Behaviours among Malaysian Adolescents: A Cross Sectional Survey among Secondary School Students in Negeri Sembilan. *Annals Academy of Medicine Singapore*, 36 (3), 169-174.
- [39] Lee, Y. (1999) How Do Individuals Experience Leisure?. Parks & Recreation, 34(2), 40-46.
- [40] Light, R., Nee, C., & Ingham, H. (1993) Car Theft: The Offender's Perspective, Home Office Research Study 130, London, Home Office.
- [41] Lutfiyya, M.N., Shah, K.K., Johnson, M., Bales, R. W., Cha, I., McGrath, C., Serpa, L., & Lipsky, M. S. (2008) Adolescent daily cigarette smoking: is rural residency a risk factor?. *Rural and Remote Health* 8 (online), 2008: 875. Available from: http://www.rrh.org.au.
- [42] Mahoney, J. L. (2000) Participation in school extracurricular activities as a moderator in the development of antisocial patterns. *Child Development*, 71(2), 502-516.
- [43] Mainous, A. G., Martin, C. A., Oler, M. J., Richardson, E. T. &, Haney, A. S. (1996) Substance use among adolescents: fulfilling a need state. *Adolescence* 31(124), 807-815.
- [44] Mainous, R.O., Mainous, A.G., III, Martin, C.A., Oler, M.J., & Haney, A.S. (2001) The importance of fulfilling unmet needs of rural and urban adolescents with substance abuse. *Journal of Child and Adolescent Psychiatric Nursing*, 14(10), 32-40.
- [45] Malkin, M. J., & Rabinowitz, E. (1998) Sensation seeking and high-risk recreation. *Park & Recreation*, 33(7), 34-39.
- [46] Moore, S., & Ohtsuka, K. (2000) The structure of young people's leisure and their gambling behaviour. *Behaviour Change*, 17, 167-177.
- [47] Munson, W. W. (2002). Recreation and Juvenile Delinquency Prevention: How Recreation Professionals Can Design Programs that Really Work- Research Update. Parks & Recreation. 37 (6), 31-38.
- [48] Naing, N.N., Ahmad, Z., Musa, R., Hamid F.R.A., Ghazali, H., and Abu Bakar, M.H. (2004) Factors Related to Smoking Habits of Male Adolescents. *Tobacco Induced Diseases*, 2(3): 133-140.
- [49] Patterson, L., & Pegg, S., (1999) Nothing to do: The relationship between 'leisure boredom and alcohol and drug addiction: Is there a link youth suicide in rural Australia? *Youth studies Australia*, 18(2), 24-29.
- [50] Redding, R. E., & Arrigo, B. (2006) Multicultural Perspectives on Delinquency Among African-American Youths: Etiology and Intervention. School of law Working Paper Series. Villanova University School of Low.
- [51] Rice, R.E., Donohew, L., & Clayton, R. (2003) Peer network, sensation seeking, and drug use among junior and senior high school students. *Connections*, 25(2), 32-58.
- [52] Robertson, B. J. (1999) Leisure and Family: Perspectives of Male Adolescents Who Engage in Delinquent Activity as Leisure. *Journal of Leisure Research*, (31) 4, 335-359.

- [53] Rupp, D.E., & Vodanovich, S.J. (1997) The role of boredom proneness in self-reported anger and aggression. *Journal of Social Behaviour and Personality*, 12(4), 925-936.
- [54] Schrader, M. P., & Wann, D. L (1999) High-risk recreation: the relationship between participant characteristics and degree of involvement, *Journal of Sport Behaviour*, 22(3), 426–441.
- [55] Sickmund, M; Snyder, H. N; & Poe-Yamagata, E. (1997) Juvenile Offenders and Victims: 1997 Update on Violence. Washington DC: Office of Juvenile Justice and Delinquency Prevention.
- [56] Sidhu, S. A. (2005) The rise of crime in Malaysia An academic and statistical analysis. *Journal of the Kuala Lumpur Royal Malaysia Police College*, 5, 1-28.
- [57] Siegenthaler, K.L. (1997). Health benefits of leisure. Parks & Recreation. 32(1): 24-29.
- [58] Smith, D.J. (2004) Parenting and Delinquency at Ages 12 to 15. Edinburgh Study of Youth Transitions and Crime Research Digest No. 3. Available at: http://www.law.ed.ac.uk/cls/esytc/findings/digest3.pdf.
- [59] Stebbins, R. A. (2003) Boredom in Free Time. LSA Newsletter, 64, 29-31.
- [60] Stephenson, M. T. (2002) Sensation seeking as a moderator of the processing of anti-heroin PSA's. *Communication studies*, 53, 358-380.
- [61] Stephenson, M. T., Hoyle, R. H., Palmgreen, P., & Slater, M. D. (2003) Brief measures of sensation. Seeking for screening and large-scale surveys. *Drug and Alcohol Dependence*, 72, 279-286.
- [62] Strauss, A., & Corbin, J. (1990) *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage Publications, Inc.
- [63] Thorlindsson, T., & Bernburg, J. G. (2006) Peer groups and substance use: Examining the direct and interactive effect of leisure activity. *Adolescence*, 41(162), 321-339.
- [64] Thrasher, J.F., Niederdeppe, J.D., Jackson, C., & Farrelly, M, C. (2006) Using anti-tobacco industry messages to prevent smoking among high-risk adolescents. *Health Education and Behavior*, 21(3), 325-337.
- [65] Turkish Monitoring Centre for Drugs and Drug Addiction. (2007) New Developments, Trends, Selected Issues. Annual Report Submitted to EMCDDA (European Monitoring Centre for Drugs and Drug Addiction) by Turkey. Ankara.
- [66] Vassallo, S., Smart, D., Sanson, A. & Dussuyer, A. (2002) Patterns and precursors of teenage antisocial behaviour. Paper presented at the The Role of Schools in Crime Prevention Conference convened by the Australian Institute of Criminology in conjunction with the Department of Education, Employment and Training, Victoria, and Crime Prevention Victoria and held in Melbourne, 30 September 1 October 2002
- [67] Wasserman, G., Keenan, K., Tremblay, R. E., Coie, J. D., Herrenkohl, T, I., Loeber, R., & Petechuk, D. (2003) "Risk and Protective Factors of Child Delinquency". *Child delinquency, bulletin Series*. Washington DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- [68] Weisskirch, R. S., & Murphy, L.C. (2004) Friends, porn, and punk: sensation seeking in personal relationships, Internet activities, and music preference among college students. *Adolescence*. 39(154), 189-201.
- [69] Zuckerman, M. (1994) Behavioral expression and biosocial bases of sensation seeking. New York: Cambridge University Press.