Global Journal of human social science
Arts & Humanities
Volume 13 Issue 5 Version 1.0 Year 2013
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-460X & Print ISSN: 0975-587X

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Keywords : *athletes, sports, college, adolescent, organizations, clubs, delinquency, drug, alcohol.*

GJHSS-A Classification : *FOR Code: 110699*

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Factors and Correlates in the Prevalence of Adolescent Delinquency: Do Sports Involvement and Non-sports Involvement Matter?

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I. Factors, and Correlates in the Prevalence of Adolescent Delinquency: Do Sports Involvement non-Sports Involvement Matter?

Team sports build character and provide guidance for youth; thisthought has lead most to believe that athletic participationreduces the risk for criminal behavior in children (Begg, Langley, Moffit, & Marshall, 1996). Sports activity is suggested to expose children and adolescents to positiveinfluences encouraging conformity to social norms and rules and strengthening social bonds. Lack of structure and positive influences for children and adolescents who do not participate in sports may be associated with deviance from societal rules resulting in more risky behaviors. The proposition that participation in sports reduces the risk of delinquent behaviors is referred as the deterrence hypothesis (Begg, et al., 1969).

Sports are shown to reducedelinquent behavior by occupying the participants time and increasing self-esteem and discipline (Zamanian, Zameni, Forouzandeh, & Haghighi, 2012). Sport participants experience a structured, adult-supervised setting during after school hours while other adolescents are unsupervised and vulnerable (Miller, Melnick, Barnes, Sabo, & Farrell, 2007) thereby limiting the opportunities for delinquent behaviors. Nelson and Gordon-Larsen (2006) used nationally representative data on adolescents finding that adolescents engaging in sports with their parents were less likely to engage in risk behaviors (sex, delinquency, smoking, alcohol, drug use, truancy, and non-use of seatbelts). The length of time spent playing on a sports team is also an important factor in deterrence from delinquent behaviors. Zamanian et al. (2012) found that the longer the duration of sports participation, the lower the delinquency rates.

Research has shown that many positive outcomes occur for children who participate in sports and in non-athletic organizations as well. Children who are involved in both types of activities are exposed to positive influences and begin to create a sense of identity revolving around these associations. The amount of unstructured free time is reduced for children enrolled in multiple structured activities, limiting opportunitiesforexposure to negative influences (Linver, Roth, and Brooks-Gunn, 2009). Even sole participation in non-athletic activity is associated with higher grades and higher ratings from teachers (Fletcher, Nickersan, & Wright, 2003).

The use of sports as a deterrence for delinquent behavior is conceived from Hirschi's (1969) social bonds theory. Delinquents and non-delinquents are equally vulnerable to delinquent impulses, but differ in how the impulses are restrained. The theory proposes that strong social bonds to society discourage delinquent behavior. Individuals with strong social ties are more inclined to accept and follow social norms and individuals with weak social ties are more susceptible to delinquent behavior. Participation in socially acceptable activities, such as sports, religious groups, and clubs, strengthens social bonds and reduces delinquent behavior.

The athlete delinquent hypothesis, an alternative to the deterrence hypothesis, states that "deviancy is the product of an individual's membership of, or contact with, certain organizational systems" (Begg, et al., 1969, pg. 355). Participation on a sports team may therefore facilitate delinquent behavior. In a longitudinal study of New Zealand adolescents, Begg et al. (1996) found that

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sports activity was associated with the increased likelihood of a range of delinquent behaviors. The study examined if sporting activity in mid-adolescence deterred delinquent behavior in later adolescence. When compared to participants who had little involvement in sports at age 15, those who reported the highest involvement at age 15 were more likely to be delinquent at age 18.

Sports participation is also found to have a long term impact on individuals, influencing behaviors later in life. This longitudinal study by Hartmann and Massoglia (2007) examined the effects of high school sport participation in early adulthood. This study looked at three measures of athletic involvement: participation, intensity, or salience. Sports participation was found to impact behaviors into early adulthood. An increase in some delinquent behaviors such as speeding, drunk driving, angry or violent behavior at work but a decrease in other behaviors such as shopliftingor work fraud were seen later in life. The strongest correlation was found between high school sport participation and later life drunk driving and shop lifting. In addition, Wichstrom & Wichstrom (2009) found that sports participation during adolescence may increase the incidence of alcohol intoxication in early adult years.

Research indicates that popular adolescents drink more often than less popular adolescents as a result of their wide social networks and multiple opportunities to engage in this behavior (Wichstrom & Wichstrom, 2009). Adolescents who participate in sports are assumed to be more popular than non-athletes increasing their chances of engaging in drinking behavior. Athletes are often viewed “special” and treated differently than non-athletes. Admiration and praise from peers and the public may lead athletes to perceive themselves as above the rules and able to participate in unacceptable behaviors without consequences (Ungerleider, 1996 as cited by Miller, et al., 2007). An athlete’s belief in being an exception to the rule is commonly seen at the college level.

Differences in delinquency between college athletes and non-athletes may depend on the specific behavior. For example, binge drinking has been consistently reported higher in college athletes compared to non-athletes (Yusko, Buckman, White, & Pandina, 2008). Yusko et al. (2008) compared the frequency and pattern of substance use in college student athletes and non-athletes. Social drug use, marijuana, cocaine, hallucinogens, or designer drugs, were lower in male student athletes, but the use of performance-enhancing drugs were higher in male student athletes compared to non-athletes. Similarly female student athletes reported higher use of banned performance-enhancing drugs and nutritional supplements than non-athletes.

Other studies report that college athletes have higher rates of alcohol and substance use and are more likely to engage in risky behaviors than non-athletes (Ford, 2007). The intense athletic involvement for college athletes may create a "positive deviance" (Miller et al., 2006, p. 713) resulting from commitment to and complete acceptance of the goals and norms of the sport. If substance use and delinquent behaviors are normative for the team, individuals may be encouraged and feel obligated to engage in these behaviors in order to avoid disapproval of teammates (Ford, 2007). Using data from the 1999 Harvard School of Public Health College Alcohol Study, Ford (2007) found there to be differences in substance use based on sports team. Male hockey and female soccer athletes reported higher levels of substance use compared to other sports teams and male basketball and cross-country/track athletes had the lowest level of use. Therefore, type of sports team may either encourage or buffer against and discourage delinquent behaviors.

The purpose of the present study is to update and revise a scale on delinquency which will be used to examine delinquent behavior and adolescence. The Self-report Delinquency and Drug Use Scales (Esbensen & Huizinga, 1993) contain 45 questions related to delinquency and drug use. The scale is divided into five categories Street offenses, other serious offenses, minor offenses, alcohol use and other drug use. Street offenses refer to serious crimes that occur on the street, such as selling drugs or being involved in a gang fight. Other serious offenses are behaviors that are serious, but not in the street crime category; for example going joy riding or carrying a concealed weapon. Minor offenses refer to public disruption and other offenses such as being drunk in a public place or running away from home. Alcohol use and other drug use include the illegal use or consumption of specific drugs or alcohol.

Questions in the Self-report Delinquency and Drug Use Scales (Esbensen & Huizinga, 1993) were revised for this study eliminating those that are no longer relevant. The current study used the revised scale to examine and compare current delinquent behaviors with gender, college athletic involvement, and non-athletic involvement; as well as child and adolescent athletic involvement, non-athletic involvement and current delinquent behaviors.

II. Methods

a) Participants

This studyincluded a cohort of 146 college students with slightly more males (58.6%) than females. The age of participants ranged from 17 to 29, (M = 19.9, SD = 1.82). The majority of participants were not Hispanic or Latino (86.3%). Most participants were White (66.7%) with less reporting that they were Black or African American (14.6%) or other (14.6%). Very few indicated that they were Asian (2.7%) or "multiple races" (1.4%). The population contained an even number of

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upper and lower classman (46%); and fewer graduate students (6.8%). Participants reported participating in 40 different academic majors. The majority were Liberal Arts majors (59.2%), followed by Business (30.8%), Education (4.8%), Undecided (2.1%), Computer Science (1.4%), and Nursing (.7%); one participant did not report a major. The cohort was representative of the overall university population there byshowing effectivepurposive sampling.

b) Materials

Demographic Questionnaire.The questionnaire inquired concerning self-reported age, gender, ethnicity and race. The ethnic and racial and classifications were consistent with federal guidelines used in the census; Hispanic or Latino was recorded as an ethnic rather than racial category. It also queried class year, college major, college minor, and current involvement in varsity sports and on-campus non-athletic organizations.

Involvement Questionnaire. This section was developed by the researchers for this study. It measured involvement in athletic and non-athletic organized activities both during childhoodand teen years. It included nine questions scaled either ordinally or as free response. The ordinal involvement questions were on a 5–point Likert-type scale ranging from "not at all" to "consume my life".

Delinquency Scale. The Self-report Delinquency and Drug Use Scales (Esbensen & Huizinga, 1993) were revised to replace questions that are nolonger relevant with questions about delinquent behaviors more consistent with contemporary adolescence. For example, non-prescribed pain killers as well as non-prescribed steroids were added to the current scale and the question regarding the use of barbiturates was removed. The original scale contained 45 questions and was revised to contain 48 questions. Each item is a forced choice format, asking respondents whether or not they have ever engaged in delinquent behavior. Consistent with the original scale, delinquency is reported in five categories: minor delinquency, street delinquency, other serious delinquency, drug delinquency, and alcohol delinquency.

Cronbach's alpha was computed for the total delinquency scales as well as each delinquency subscale to assess the internal consistency reliability of this new delinquency scale. The internal consistency reliability for the overall scale was good (r = .87) and was in the acceptable to good range (r = .71 to .85) for all of the subscales with the exception of street delinquency (r = .61; Nunnaly & Bernstein, 1994). The potential implications of this finding are addressed in the discussion section.

c) Procedure

The study was approved by the university's Institutional Review Board. Prospective participants were recruited from classrooms, sports teams meetings, and public places on campus such as the cafeteria and student lounges. Participants provided written informed consent and completed three brief questionnaires related to childhood and adolescent activity involvement and delinquency. Participation took approximately five minutes.

Data analysis was performed using the SPSS statistical analysis program. Descriptive statistics were calculated for items on the demographic and involvement questionnaires. Independent sample t-tests were conducted to compare genders. Independent measures 2 x 2 ANOVAs were conducted for the entire sample as well as males and females separately to determine the impact of athletic and non-athletic involvement on the different forms of delinquency. Correlations were computed to assess the relation between child and adolescent involvement in athletic and non-athletic activities and subsequent delinquent behavior.

III. Results

a) Descriptive Statistics

Descriptive statistics for the items on the Involvement Questionnaire were calculated in order to determine how involved participants were in athletic and non-athletic activities since childhood. The age at which participants started playing sports ranged from 2 to 21 (M = 7.6, SD = 3.4) and the number of sports that they played as a child ranged from 0 to 9 (M = 3.21, SD = 1.88). The vast majority of students reported that they were "involved" (30.8%) or "very involved" (22.6%) in sports or that sports "consumed" their life (34.2%) during childhood. Relatively few participants reported that sports were "a small part" (7.5%) or "not at all" a part of their life (4.8%) as a child. The number of non-athletic organizations that students were involved in as children ranged from 0 to 5 (M = 1.52, SD = 1.34). When asked how involved they were in these non-athletic organizations, the most common answers were that they were a "small part" of their lives (32.2 %) or that they were "involved" (31.5%). Fewer respondents indicated that they were "not at all" involved (18.5%), "very involved" (16.4%), or that the organizations "consumed" their life (1.4%).

As teenagers, participants reported playing between 0 and 6 (M = 2.36, SD = 1.37) sports. They were mostly "very involved" (30.6 %) or "consumed" (43.1 %) by the sports that they played during this time. Fewer students reported that they were merely involved (11.1%), or that sports were a "small part" 9.6 %) or "not at all a part" (6.4 %) of their lives. The students reported being involved in between 0 and 9 (M = 1.97. SD = 1.83) nonathletic organizations. Relatively few students reported that they were "consumed" by their involvement in non-athletic organizations (4.1%).The remainder were roughly equally distributed in reporting

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that they were "very involved" (21.4%) or "involved" (34.0%), or that the organizations were a "small part" (24.8%) or "not at all a part" (18.6 %) of their lives.

As college students, 60.4% of the study cohort were varsity athletes and half (50.7%) were involved in non-athletic organizations on campus.

b) Gender Comparison

Independent samples t-tests were conducted to determine if either gender reported more of any form of delinquency. The means and standard deviations for males and females for all forms of delinquency are in Table 1. The tests for alcohol ($t[139] = -.96$, $p = .93$) and drug delinquency ($t[137] = 1.87$, $p = 1.87$) were not significant. There were no significant differences between male and females students in their illegal consumption of alcohol and drugs. The tests for all other forms of delinquency were significant. For minor delinquency ($t[137] = 3.20$, $p = .018$), street delinquency ($t[137] = 3.82$, $p < .001$, other serious delinquency ($t[136] = 3.05$, $p = .001$), and total delinquency ($t[138] = 3.207$, $p = .044$), males scored higher than females.

c) Impact of Athletic and Non-Athletic Involvement

A series of 2 x 2 ANOVAs were conducted first for the entire sample and then for males and females separately to evaluate the effects of current athlete status (i.e., varsity athlete versus non-varsity athlete) and non-athletic involvement (i.e., involved in non-athletic organizations versus not involved in non-athletic organizations) on all forms of delinquency. The means, standard deviations, F and p values and effect sizes for each analysis are provided in Table 2.For the overall sample and for the males, there were no significant main effects or interactions. Neither currently being involved in varsity sports nor non-athletic organizations had an impact on delinquent behavior. For the females, there was a significant main effect for non-athletic organizational involvement on minor delinquency. Female students that were involved ($M=3.91$, $SD=1.91$) in non-academic college organizations reported more forms of minor delinquency than those that were not involved ($M = 2.8$, $SD = 2.11$), $F(1, 79) = 5.62$, $p = .02$, $\eta^2 = .066$. Involvement in non-academic organizations accounted for 6.6% of the variance in minor delinquency for female.

d) Correlates of Delinquency

Correlations between childhood and teenage involvement in both athletics and non-athletic organizations and subsequent forms of adolescent delinquency were computed for both the entire sample overall and separately for males and females. All correlations are presented in Table 3. Only the significant correlations are presented here.

For the sample overall, playing more sports as a child ($r = .18$, $p = .035$), rating involvement in sports as a child as more involved or consuming ($r = .18$, $p = .024$), and starting sports at a later age as a child ($r = .18$, $p = .017$) were all positively correlated with drug delinquency. Rating involvement in sports as more involved or consuming as a teenager was positively correlated with alcohol ($r = .19$, $p = .023$) and total ($r = .19$, $p = .023$) delinquency.

For males, playing more sports as a child ($r = .27$, $p = .040$) and rating involvement in sports as a child ($r = .27$, $p = .046$) and as a teenager ($r = .28$, $p = .039$) as more involved or consuming were all positively correlated with drug delinquency.

For females, rating involvement in sports as more involved or consuming as a teenager was positively associated with alcohol ($r=.33$, $p = .002$), minor ($r=.26$, $p = .018$), and total ($r=.24$, $p = .028$) delinquency. Playing more sports as a teenager was positively correlated with other ($r=.29$, $p = .008$) and total ($r=.23$, $p=.038$) delinquency. Being involved in more non-athletic organizations as a child was positively correlated with other serious delinquency ($r=.23$, $p=.035$).

IV. Discussion

The majority of the participants in the present study started playing sports in elementary school and played several sports in both elementary and high school. This finding is to be expected since the secular trend for both children and adolescents indicates less exercise from everyday physical activities (e.g., walking or cycling) and more exercise from organized sports (Biddle, Gorely, & Stensel, 2004). These findings appear to result from environmental constraints, convenience, and parents' concern for safety. Participants were also involved in a similar number of non-athletic organizations as wellbut the level of involvement in sports was higher than non-athletic organizations. Children and their parents may value sports over non-athletic organized clubs.

Due to the team nature of many sports, children and adolescents may prefer being a team member rather than a club member accounting for their higher level of involvement in sports. Another possibilityis that sports participation occurs multiple times a week with practices and games, and is therefore more time consuming the non-athletic organizations. As a result, participants may recall spending more time in sports related activities and reporta higher level involvement in sports.

Analysis of gender effect on forms of delinquency found that males scored higher than females on all forms of delinquency except alcohol and drug delinquency. Research has found males to have higher levels of serious and violent offenses than female (Weerman & Hoeve, 2012). A possible explanation, suggested by Moffitt, Caspi, Rutter, & Silva (2001; as

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cited by Weerman & Hoeve, 2012), proposes that males are more exposed to certain risk factors and therefore more vulnerable than females, increasing the rate of delinquency in males.

Although previous studies have reported more drinking by males than females (males consume more alcohol), they have tended to focus on binge or heavy drinking episodes (Dawson & Archer, 1992: Naimi, Brewer, Mokdad, Denny, Serdula, & Marks, 2003: Wilsnack, Vogeltanz, Wilsnack, & Harris, 2000). In the present study, participants were asked if they have ever consumed alcohol before the legal age or used illegal drugs. College offers an environment that is open to experimentation and trying new experiences with less parental supervision. Alcohol and drug use are popular on college campuses and males and females have equal opportunities to drink and use drugs with less parental supervision. These behaviors are more accepted in the college environment than the any of the other forms of delinquency making it more likely that males and female would consume drugs or alcohol.

For the overall sample and for males, current varsity athletic involvement and non-athletic organizations did not have an impact on any of the forms of delinquent behavior. As discussed previously, findings regarding involvement and delinquency have been mixed. For athletic involvement, some studies found athletes to engage in drug and alcohol delinquency more than non-athletes (Ford, 2007: Yusko et al., 2008). However, others havefound involvement in athletics and non-athletic organizations to have no effect on drug or alcohol delinquency (Leaver-Dun, Turner, & Newman, 2007). The currentstudy finds that involvement is not associated with drug or alcohol delinquency.

An athlete's willingness to support the norms of their sports team, or "positive deviance" (Miller et al., 2006, p. 713), wouldeffect their participation in delinquent behaviors. The sports team establishesnormativebehavior for the group, such as drinking or doing drugs. In order to avoid peer disapproval from teammates, an athlete may feel pressure to engage in these behaviors. However, if teammatesdon't pressure the team members to engage in specific behaviors, the athlete has the ability to act independently. Therefore, in the present study, it may be that the athletic teams did not pressure team members to engage in delinquent behavior. Alternatively, the norms of the different teams regarding delinquent behavior may not have differedfrom the norms of the student population.

Given that the participants were asked to indicate whether they have ever engaged in delinquent behavior, current college students who were involved in sports or non-athletic organizations may have had delinquent experiences before college. Consequently, current status as a college athlete or club member may not have an impact on previous behavior.

Contrary to males and the sample overall, females involved in non-academic college organizations reported greater forms of minor delinquency that those not involved. This may occur because females involved in clubs are more social and are more likely to be among peers engaging in delinquent behavior. Another explanation may be that the university in the present study has active Greek life organizations, includingsororities. Therefore when a female participant reported involvement in non-athletic organizations, it could represent participation in a sorority. Sororities engage in behaviors such as drinking that may lead to minor forms of delinquency which include lying about one's age to buy something, being loud and unruly in public, and being drunk in public.

For the overall sample, playing more sports as a child, rating involvement in sports as a child as more involved or consuming, and starting sports at a later age are all associated with drug delinquency. This is consistent with the athlete delinquent hypothesis (Begg, et al., 1969) in which drug delinquency is facilitated as a result of being a member of a sports team. In addition, children who started sports at a later age had more unstructured free time during which exposure to drugs could have occurred. Parents also might have encouragedtroubled children into sports at a later age in hopes to redirect them away from already existing drug and other delinquent behavior.

As a teenager, rating involvement in sports as more consuming was associated with alcohol and total delinquency. Previous research has found an association between teenage athletic involvement and alcohol delinquency (Hartmann & Massoglia, 2007: Peck, Vida, & Eccles, 2008: Wichstrom & Wichstrom, 2009). Additionally, adolescent athletes are perceived to be more popular than their non-athlete peers. Investigators report that popular adolescents drink more often than those who are less popular (Wichstrom & Wichstrom, 2009) consistent with the Athlete Delinquency Hypothesis (Begg et al., 1969). Males were similar to the overall sample; playing more sports as a child and rating involvement in sports as a child and as a teenager as more involved or consuming were associated with drug delinquency. Researchersreport that the use of performance-enhancing drugs is higher in athletes and more so in male athletes than in female athletes (Yusko, Buckman, White, & Pandina, 2008). Most college athletes start playing sports from an early age. The pressures to do well and excel places substantial pressure on the athlete. Performance enhancing drugs may be consumed to maintain or increase athletic ability.

For females, rating involvement in sports as more involved or consuming as a teenager was associated with alcohol, minor, and total delinquency. Females who played more sports as teenagersreported other serious and total delinquency as well. This

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suggests that the Athlete Delinquent Hypothesis (Begg, et al., 1969) applies to females as well as males. Involvement and participation in sports teams may enable the delinquent behaviors in female. The stereotype may be that males engage in more forms of delinquent behavior but our study show that females engage in these behaviors as well.

In addition, females involved in more non-athletic organizations as a child were associated with other serious delinquency. Although previous studies have shown that participation in non-athletic organizations is associated with decreased delinquency, there is an association between non-athletic organizations and physical fighting frequency (Linville & Huebner, 2005). This suggests that the type of non-athletic organization, e.g. Girl Scouts versus kick boxing classes, may increase physical fighting. Females involved in non-athletic organizations as children are more social and may associate with peers that experiment with delinquent behavior. Females more involved in non-athletic clubsin childhoodmay join non-athletic clubs in college which include sororities. Greek life participation influences behaviors that could lead to other delinquency such as stealing something for less than five dollars, or throwing objects at people.

The internal consistency reliability for the scale used in this study was assessed by computing Cronbach's alpha. Reliability for the scale was good overall, and either acceptable or good for all delinquency subscales, with the exception of street delinquency which was questionable (Nunnaly & Bernstein, 2004). The street delinquency subscale consisted of items such as sold drugs, attacked someone with a weapon, and stole something worth more than $100. The lower reliability for this subscale may not be a function of an inherent problem in the delinquency scale as much as the case that this form of delinquency may not be as applicable to the college student population. The potential impact on the power of the analyses is unknown and therefore further research to assess the reliability and validity of this scale is recommended.

Another potential limitation is that this study is self-report. Additionally, there may be other factors that explain the prevalence and correlates of delinquency in college students that have not been included in this study. If one were interested in delinquency during college they would use a revised scale that asked if they ever engaged in these behaviors while in college. Future research might address these factors as well as future impact of current athletic and non-athletic involvement on delinquency.

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Table 1 : Independent measures t test on the impact of gender on the forms of delinquency

	Males		Females			
	M	SD	M	SD	t	p
Alcohol	2.28	1.23	2.26	1.13	-.96	.93
Drug	.354	1.08	.737	1.33	1.87	1.87
Minor	3.37	2.08	4.45	1.79	3.20	.018*
Street	.169	0.41	.750	1.30	3.82	.000***
Other Serious	1.01	1.39	1.88	1.93	3.05	.001***
Total	7.23	4.48	10.02	5.77	3.21*	.044*

*Note. * p<.05, **p<.01, ***p<.001*

Table 2 : Two way ANOVA analysis on the impact of athletic and non-athletic involvement on the forms on delinquency, overall and by gender

	SS	df	MS	F	p	η^2
Overall						
Street						
InvolvedColl	.400	1	.400	.453	.502	.003
Athlete	1.74	2	.870	.986	.376	.015
InvolvedColl*Athlete	.007	1	.007	.008	.929	.000
Other Serious						
InvolvedColl	1.67	1	1.67	.602	.439	.005
Athlete	6.16	2	3.08	1.12	.333	.017
InvolvedColl*Athlete	.080	1	.0080	.029	.866	.000
Minor						
InvolvedColl	22.8	1	22.8	5.59	5.59	.650
Athlete	4.49	2	2.24	.549	.579	.008
InvolvedColl*Athlete	.019	1	.019	.005	.946	.000
Drug						
InvolvedColl	.993	1	.993	.710	.401	.005
Athlete	2.30	2	1.152	.824	.441	.013
InvolvedColl*Athlete	.121	1	.121	.087	.769	.001

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Alcohol						
InvolvedColl	2.33	1	2.33	1.92	.401	.005
Athlete	4.87	2	2.34	2.00	.139	.030
InvolvedColl*Athlete	.133	1	.133	.110	.741	.001
Total						
InvolvedColl	54.4	1	54.4	2.03	.156	.015
Athlete	20.58	2	10.29	.358	.681	.006
InvolvedColl*Athlete	.005	1	.005	.000	.989	.000
Males						
Street						
InvolvedColl	2.15	1	2.15	1.25	.268	.024
Athlete	3.03	2	1.52	.883	.420	.033
InvolvedColl*Athlete	.200	1	.200	.117	.734	.002
Other Serious						
InvolvedColl	.018	1	.018	.005	.946	.000
Athlete	4.83	2	2.42	.619	.543	.024
InvolvedColl*Athlete	.004	1	.004	.001	.973	.000
Minor						
InvolvedColl	3.09	1	3.09	.952	.334	.018
Athlete	.125	2	.063	.019	.981	.001
InvolvedColl*Athlete	3.50	1	3.50	1.08	.303	.020
Drug						
InvolvedColl	.004	1	.004	.002	.965	.000
Athlete	.562	2	.281	.149	.862	.006
InvolvedColl*Athlete	.021	1	.021	.011	.917	.000
Alcohol						
InvolvedColl	3.84	1	3.84	3.01	.089	.054
Athlete	2.43	2	1.22	.954	.392	.035
InvolvedColl*Athlete	.161	1	.161	.126	.724	.002
Total						
InvolvedColl	36.8	1	36.8	1.05	.309	.020
Athlete	15.2	2	7.58	.217	.806	.008
InvolvedColl*Athlete	.025	1	.025	.001	.979	.000
Females						
Street						
InvolvedColl	.004	1	.004	.024	.877	.000
Athlete	.184	1	.184	1.08	.302	.013
InvolvedColl*Athlete	.009	1	.009	.051	.822	.001
Other Serious						
InvolvedColl	6.89	1	6.89	3.67	.059	.045
Athlete	4.08	1	4.08	2.18	.144	.027
InvolvedColl*Athlete	.066	1	.066	.035	.851	.000
Minor						
InvolvedColl	23.1	1	23.1	5.62	.020*	.066
Athlete	3.82	1	3.82	.932	.337	.012
InvolvedColl*Athlete	.170	1	.170	.042	.839	.001
Drug						
InvolvedColl	.745	1	.745	.630	.430	.008
Athlete	1.41	1	1.41	1.19	.279	.015
InvolvedColl*Athlete	.361	1	.361	.306	.582	.004
Alcohol						
InvolvedColl	.416	1	.416	.330	.567	.004
Athlete	3.50	1	3.50	2.78	.100	.034
InvolvedColl*Athlete	.800	1	.800	.635	.428	.008
Total						
InvolvedColl	49.6	1	49.6	2.48	.119	.030
Athlete	10.9	1	10.9	.543	.463	.007
InvolvedColl*Athlete	.657	1	.657	.033	.857	.000

*Note. InvolvedColl = involved in college clubs *p< .05*

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Table 3 : Significant Correlations between child and teenage involvement in athletic and non-athletic organizations and forms of delinquency overall and separated by gender

	Drug	Alcohol	Street	Other Serious	Total
Child Involvement					
Plays more sports	.18*				
Report sports as more involved	.18*				
Start sports later in life	.18*				
Teenage Involvement					
Report sports as more involved		.19*			.19*
Male Child Involvement					
Plays more sports	.27*				
Report sports as more involved	.27*				
Male Teenage Involvement					
Report sports as more involved	.28*				
Female Teenage Involvement					
Report sports as more involved		.33**		.26*	.24*
Plays more sports				.29**	.23*
Female Non-athletic Involvement					
Report non-athletic more involved				.23*	

*Note. * p<.05, **p<.01*

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