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Involvement in Sports and Engagement in Delinquency:
An Examination of Hirschi's Social Bond Theory

A thesis

presented to

the faculty of the Department of Criminal Justice and Criminology

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Master of Arts in Criminal Justice and Criminology

by

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December 2001

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Programs, Delinquency

ABSTRACT

Involvement in Sports and Engagement in Delinquency:
An Examination of Hirschi's Social Bond Theory

by

Randy Hass

Sports have been proposed as a means of reducing participation in delinquency. One criminological theory that would support this hypothesis is Travis Hirschi's social bond theory. The involvement element of that theory proposes that engaging juveniles in non-delinquent activities reduces engagement in delinquency. However, the relationship between sports and delinquency has not been adequately tested. Data from the first wave of the National Youth Survey were examined by ordinary least squares regression to determine if there was evidence supporting school sponsored sports programs as a means of reducing delinquency. No evidence was found to support the research hypothesis. Involvement in sports actually was associated with an increase in some types of delinquency, though the slope of the regression line was very slight. This study was a piece of evidence bringing into question the legitimacy of the involvement element in social bond theory.

DEDICATION

I dedicate this thesis to my loving wife, Janis. Without her support, I could never have accomplished it. I also dedicate it to my children, Michael and Rachel. Thank you for putting up with me throughout my education, for understanding when I missed important events, and for loving me through all the stress.

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CHAPTER 1

INTRODUCTION

Sports are an important part of American culture. More than 25 million youths participate in sports each year in the United States (Browne & Francis, 1993; Hines & Groves, 1989; Lombardo, 1986). Sports have come to be seen as a panacea for many of the problems that youths face. Many well-meaning people recommend enrolling children in team sports. When questioned why sports are so important for children, conventional witticisms such as “It will keep him out of trouble,” “I have always heard that it is good for kids,” and “It will keep him busy,” are the typical responses. While sports programs may provide juveniles with many benefits, the relationship between sports and delinquency needs to be tested.

Benefits of Sports

There is a presumption in American society that participation in sports has positive effects in addition to the physical and mental health benefits. “Athletics have been assumed to influence in positive ways the overall socialization of the individual” (Landers & Landers, 1978, p. 299). The consequences of sport activity include psychological well being through the reduction of anxiety and depression, social harmony, and social change (Vilhjalmsson & Thorlindsson, 1992; Wankel & Berger, 1990). Participation in sports may increase a person’s social status and self-esteem (Wankel & Berger). It may even increase a person’s ultimate educational level by encouraging the person to complete high school and college in order to be able to participate in their sporting programs. It could also increase satisfaction in the school (Agnew & Petersen, 1989; Landers & Landers, 1978). People have reported participating in

sports programs as a means of combating insecurity and loneliness. Youth sports programs have also fulfilled “a need to connect with other people” (Messner, 1990, p. 429). Sports programs are thought to encourage positive character traits (Beyer & Hannah, 2000; Wankel & Berger, 1990), including “development of a competitive spirit, ability to cooperate, sportsmanship, good manners, courage, a greater capacity for delay of gratification, persistence, resistance to pain and fatigue, and a release from tension and aggressive impulses” (Landers & Landers, 1978, p. 299). Sports are considered a way of developing social and personal adjustment in children (Beyer & Hannah, 2000; Hines & Groves, 1989).

Sports and Delinquency

Rates of delinquency peak around age 16 to 18 years (Sampson & Laub, 1993). Popular belief has espoused for well over a century that sports programs reduce delinquency (Agnew & Petersen, 1989; Brown, 1991; McIntosh, 1971; Vilhjalmsson & Thorlindsson, 1992). If sports programs reduce the likelihood of engagement in delinquency, juveniles should be encouraged to participate during the peak delinquent years. One criminological theory that would favor enrolling children in sports is Travis Hirschi’s social bond theory. Hirschi proposed that the more time children spend involved in conventional activities, such as sports, the less likely they are to engage in delinquent activities. Participation in sports should have a negative correlation with participation in delinquent acts.

The perceived social benefits of sports programs, including their effect on delinquency, are based on popular beliefs and presumptions. Few current studies have examined whether there is any basis for sports having a negative correlation with delinquent acts. There is even a

possibility that participating in sporting programs could increase the likelihood that youths will engage in delinquent activity. For example, parents may have less contact with their children due to their participation in sporting programs. This could weaken the parents' influence on the children's behavior, leading to engagement in greater amounts of delinquency.

The Problem

Statement of the Problem

The purpose of this thesis was to determine whether youths aged 11 through 17 years are less likely to engage in delinquent acts as they spend more time involved in school sponsored sports. The statistical significance of the relationships between involvement in sports and engagement in various types delinquency were examined. The direction of the relationships were also considered. Negative relationships would indicate that involvement in sports reduced the youths' participation in delinquency, while positive relationships would indicate that involvement in sports actually increased delinquency. The magnitude of the effect that school sponsored sports programs had on delinquency was determined by examining the standardized Betas of statistically significant relationships.

Significance of the Problem

With millions of juveniles participating in sports programs annually, it is important to determine their social effects. Delinquency prevention programs often involve leisure and recreation activities (Agnew & Petersen, 1989). If engaging in sports programs reduces the likelihood of delinquent acts, then sports programs should be supported on this basis. If sports programs have no effect on the likelihood of delinquency, they can still be supported on the basis

of their physical benefits and should be tailored toward that end rather than toward social goals. On the other hand, if engaging in sports increases the likelihood of engaging in delinquent acts, then the sports programs need to be examined to determine the components that lead to delinquency. The programs could then be modified to reduce the anti-social effects.

Hypotheses

The dependent variable examined in this thesis was engagement in delinquency. Engagement in delinquency is defined as participating in any of the activities used to as a measure of delinquency, including whether the respondent had, during the previous year, committed various acts involving violent, property, and drug offenses. The specific types of acts considered are discussed in Chapter 3. Involvement in sports was defined as spending any amount of time involved in school sponsored sports programs after school during the afternoon, evening, or on weekends. To test the relationship between participation in sports programs and engagement in delinquency, the null hypothesis was that the standardized Beta for the relationship between involvement in sports and engagement in delinquency would equal zero, be positive, or fail to reach significance at the .05 confidence level. The research hypothesis was that the standardized Beta would be a negative number significant to at least the .05 confidence level.

Limitations

Because few researchers consider the element of involvement when studying delinquency, there are few data sources available. This paper will use data from wave one of the National Youth Survey (NYS) administered in 1976. While the data are excellent for studying

the specific hypotheses presented here, they are more than 20 years old. The data should provide a good base for examining the research hypothesis, but there may be too much distance between the data and modern day youths. Coaching styles, sporting programs, and other factors may have changed enough during the last two decades to make a replication of this study produce different results.

Another limitation of the data relates to the potential impact of involvement in different sports. The specific types of sporting programs engaged in by the youths are not identified in the data. Different sporting programs may have different effects on the commitment of delinquent acts.

The available data include youths' responses to whether they engage in school-sponsored sports but do not include data on sports that are not sponsored by schools. Local businesses and other entities often sponsor sports programs. Many sporting events also occur spontaneously without any sponsoring organization, such as when groups of youths gather by happenstance on local playgrounds and decide to play basketball. Sporting programs sponsored by schools may have different effects on the commitment of delinquent acts than sports that are sponsored by other entities or that occur spontaneously.

CHAPTER 2

LITERATURE REVIEW

Social Process Theories

Social bond theory belongs to a group of criminological theories known as social process or social psychological theories. These theories generally assume a micro level attempt at describing how people become involved in delinquency. They attempt to explain why individuals, not groups of people, become involved in criminality. Social process theories reject the notion that criminal behavior is influenced by biological factors and instead concentrate on how individuals react to social phenomena.

Many of the individuals who studied and proposed social process theories were influenced by ideas that originated at the University of Chicago. Referred to as “the Chicago School,” criminologists such as George Herbert Meade attempted to explain criminal conduct through scientific research and theoretical conceptualization. Theoretical concepts produced by members of the Chicago School had a snowball effect and they have influenced many prominent criminologists.

Social Learning Theories

Laws of Imitation. Gabriel Tarde developed the laws of imitation theory, one of the earliest attempts at explaining crime as learned behavior. As Vine (1972) explained, Tarde insisted that the biological and physical criminological theories that were popular at the end of the nineteenth century were inadequate for explaining criminal behavior. Tarde claimed that delinquent behavior was normal rather than abnormal or pathological. He stated that criminal

behavior is learned from other individuals. He determined that social factors best explained delinquency, though free will was important and biological and physical factors may have some influence. He suggested that individuals learn to become delinquent through imitation of other individuals.

Differential Association. Sutherland studied at the University of Chicago and introduced a social learning theory known as differential association, which insisted that criminal behavior is learned through a process that is identical to any other type of learning (Sutherland & Cressey, 1970). The learning process takes place through interaction and communication, particularly within intimate groups, and includes both how to commit specific crimes and motivations and attitudes for committing them. Motives, drives and attitudes can be either favorable or unfavorable toward criminal behavior. A person engages in criminal behavior when the drives become excessively favorable toward violating the law. Both criminal and noncriminal behavior are expressions of the individual's needs and values but are not explained by them.

Social Control Theories

Social control theories differ from other criminological theories, including other social process theories, in that they assume that delinquent behavior is normal. For example, social learning theories view delinquent behavior as learned. An individual will not commit delinquent behavior unless he or she learns to do so. Social control theorists premise that there is nothing inherent in individuals that causes them to obey legal codes or societal norms. No factor is needed to interfere with the individual's law-abiding behavior and cause him or her to commit delinquent behaviors. On the contrary, individuals would seek to fulfill their own self-interests

unless something causes them to place society's best interests above their own (Elliott et al., 1985). Individuals do not commit delinquent acts only because some form of personal or social control prevents them from it. Individuals will engage in criminal behaviors unless societal factors interfere with their natural tendency toward delinquency.

Containment Theory. Reckless (1973) proposed containment theory as an attempt to understand why criminogenic forces do not explain crime. He described (without clearly defining) the criminogenic forces of social pressures, social pushes, and social pulls. Reckless suggested that social controls could contain these criminogenic forces. Inner containments originate within the individual and are forms of self-control, such as conscience and a strong self-concept. Outer containments are social sanctions, whether formal or informal, from without the individual and are less important in controlling behavior than are inner containments.

Techniques of Neutralization. Minor (1981) examined the techniques of neutralization as described by Sykes and Matza, who proposed that individuals usually have feelings of guilt or shame prior to committing criminal behaviors. Criminals tend to choose victims who are less valued by society. Offenders may violate norms to which they subscribe because they have learned excuses for their behaviors. These excuses neutralize the individuals' commitments to the norms and allow them to commit delinquent behavior (Hirschi, 1969).

Social Bond Theory

Travis Hirschi introduced his social bond theory with the 1969 publication of *Causes of Delinquency*. As a social control theory, social bond theory assumes that delinquent and criminal behaviors are normal, and conformist behavior is the phenomenon that needs to be explained

(Polakowski, 1994; Thornberry et al, 1991; Wiatrowski et al, 1981). Although weak or absent bonds allow rather than cause delinquent behaviors (Krohn & Massey, 1980), behaviors that are in violation of criminal codes and social norms should be expected. With this theory, the focus is on why individuals do not commit delinquent acts rather than why they do commit delinquent and criminal behaviors (Mak, 1991).

Hirschi proposed that individuals refrain from delinquent behavior because they are bonded to society by four elements. Socializing processes originate in the home. They are then widened to encompass other societal institutions (Polakowski, 1994).

Attachment

The first element of the social bond is attachment, which refers to the individual's sensitivity to other people's opinions (Wiatrowski et al, 1981). As Agnew and Peterson (1989, p. 333) explained, attachment is "the amount of affection and respect that the individual has for significant others such as parents and teachers." Individuals are unlikely to participate in delinquent behavior if sensitive to the feelings and norms of role models (Thornberry et al, 1991).

Individuals who lack attachment are free to express their natural impulsiveness and aggressiveness. As Hirschi (1969, p. 18) explained, "to lack attachment to others is to be free from moral restraints is to use lack of attachment to explain the guiltlessness of the psychopath, the fact that he apparently has no conscience or superego." The person who lacks attachment is free to commit deviant behavior because he or she feels no remorse at acting contrary to other people's wishes.

Attachment to peers, however, can be problematic. A strong attachment to delinquent peers seems to increase the likelihood of engagement in delinquent behaviors (Wright & Cullen, 2000). Attachment to conforming peers seems to have the opposite affect (Krohn & Massey, 1980).

Commitment

The element of commitment can be defined as the individual's investment or stakes in conventional society. It refers to the commodities that a person spends time and energy in acquiring and that he or she will likely lose by engaging in delinquent behavior, such as an education, employment, or a good reputation. Commitment includes material goals or possessions that could be lost if the person engages in delinquent behavior (Krohn & Massey, 1980; Polakowski, 1994).

Commitment involves rational thought (Hirschi, 1969). The person must calculate the value of his or her conventional stakes in society and the risk of losing them before committing delinquent behavior. The individual may be mistaken in his or her estimation of the risk of getting caught and punished. The individual may also be unaware of factors that would increase his or her chances of getting caught. Therefore, engaging in delinquent behaviors may result from a lack of commitment or a mistake in calculation.

Belief

The third element, belief, pertains to the extent to which the person feels that he or she should obey society's rules. It is "the individual's commitment to the central value system of the society" (Agnew & Petersen, 1989, p. 333). Individuals who do not possess a strong belief in the

conventional value system are more likely to engage in delinquent behavior (Krohn & Massey, 1980).

Belief assumes that there is a common value system (Hirschi, 1969), but the person who commits delinquent acts does not necessarily accept it. There is no need to neutralize deviant behaviors. The person also does not need to possess values that are contrary to society's value system. The person just does not believe that he or she has to obey society's values.

The Involvement Element

This thesis examined the element of involvement. Hirschi (1969, p. 187) proposed that “of the elements of the bond to conventional society, involvement in conventional activities is most obviously relevant to delinquent behavior.” Involvement in conventional activities is related to the adage “idle hands are the devil's workshop.” Hirschi assumed that activities such as playing ping-pong and swimming are “wholesome” activities that are incompatible with delinquent activities. He failed to mention that youths who commit delinquent acts might also play ping-pong or swim. If a person is engrossed in conventional activities such as sports, then he or she will not have time to engage in delinquent activities (Agnew & Petersen, 1989). This concept would compliment the notion that playing sports is good for children because it provides activities to keep them busy. Hirschi overlooked the possibility that youths may engage in conventional activities and delinquent activities at the same time. Conventional activities may even provide opportunities for delinquent behavior.

Involvement is often considered the least important element of Hirschi's social bond theory. Research often finds that correlates regarding involvement are weak or insignificant.

Jenkins (1997) administered a questionnaire to all students whose parents had given permission for participation in a Delaware middle school during the 1990-1991 school year. The school contained only the seventh and eighth grades and students were aged 11 to 15 years. A total of 754 youths from the school's enrollment of 911 students completed the questionnaire. Questions regarding involvement included whether the students engaged in school sporting programs and attended sports events after school, belonged to the school band and orchestra, assisted with school fund raisers, participated in the student council, belonged to the drama club, and attended school concerts and dances. Students were also asked how much time they spent doing homework and studying. Jenkins found that, while belief and commitment were inversely related to school crime (defined as using alcohol, marijuana, LSD or cocaine, sniffing glue, smoking cigarettes, selling drugs, committing larceny or vandalism, hitting a teacher or student, shoving a teacher, or carrying a weapon), the attachment and involvement elements of the social bond failed to reach statistical significance. Involvement was the only element of the social bond that failed to reach statistical significance in relation to school misconduct (defined as talking in class, inappropriate language or clothing, marking on desks or walls, throwing items in class, not doing class work or homework, cheating, being out of class without permission, suspension, sent out of the classroom, and deprived from bus-riding privileges). Involvement was inversely related to school nonattendance (defined as skipping or being late to class or school) in bivariate correlation but failed to reach statistical significance when the other elements of the social bond were controlled.

Junger and Marshall (1997) conducted interviews in 1985 of Surinamese, Turkish, and

Moroccan (the three largest ethnic minority groups in the Netherlands), and Dutch boys living in the Netherlands. Turkish and Moroccan boys were randomly chosen from cities with large number of those ethnic groups. Surinamese boys, who typically have Dutch citizenship and are, therefore, not registered as aliens, were chosen from cities of at least 30,000 population where their birth had been registered. For every third minority boy, a Dutch boy was chosen from the same street and block. This provided a sample of native boys who were of a similar socioeconomic status as the minority boys. Interviews were completed with 814 of 1,231 potential respondents, but 26 boys were excluded from the study, primarily because the boys had spent only two years or less in the Netherlands. Respondents were questioned regarding property offenses, violence against persons, alcohol use, running away from home, and truancy. Official records were also examined to determine if the boys had had contact with police. The involvement element was measured through leisure activities that, according to the researchers, indicated a strong commitment to conventional goals (such as homework) and that indicated a weak commitment to conventional goals (such as riding in a car). Unfortunately, the involvement element for this study was not further defined. While the overall model resulted in lower rates of delinquency, the only involvement measure to attain statistically significant Beta weights when considered in multiple regression was “unconventional activities” for Moroccan, Surinamese, and Dutch boys. As control theory would predict, each of these had a positive slope.

In a study of fifth graders, Leonard and Decker (1994) defined involvement as doing homework, working around the house, playing with friends, or participating in orchestra, band, drama, choir, school sports, cheerleading, student government, school clubs, church groups, or

community activities such as YMCA and Boys/Girls clubs. They found the involvement element was inversely related to overall nonconformity for males. Involvement was positively related to exposure to drugs, especially for Black students. However, involvement failed to reach statistical significance with any other measure of delinquency.

Because the relationship between the involvement element and delinquency is often weak or insignificant, some researchers (Agnew, 1991a, 1991b; Dukes et al., 1997; Heimer & Matsueda, 1994; Mak, 1990, 1991; Seydlitz, 1993) do not even examine involvement when testing social bond theory or an integrated model incorporating it. Krohn and Massey (1980) combined involvement and commitment, noting that the time investment resembled commitment and that individuals will not invest time in activities to which they are not committed. Hirschi himself noted that research contemporary to the publishing of *Causes of Delinquency* failed to support a negative correlation between involvement in conventional activities and delinquent acts.

The involvement element should not be automatically discarded without further study. Perhaps involvement is insignificant in explaining delinquent behavior, but it should be measured as carefully as possible before being ignored. There is also the possibility that involvement standing alone does not share a significant relationship with delinquent behavior, but that it strengthens the other bonds enough to have a significant impact when considered in conjunction with them. Indeed, in analyzing data from the 2,213 respondents in the Youth in Transition Study, Wiatroski, Griswold, and Roberts (1981) found that the four bonds considered together explained more variance than any one element standing alone. The Youth in Transition

Study collected data from 10th-grade boys in 87 schools in 1966. The researches defined involvement as the amount of homework the boys completed, how much extra schoolwork the boys did that was not required by the teacher, and how often the boys discussed schoolwork. Delinquency was defined as theft, vandalism, interpersonal aggression, frequency and seriousness of offenses, and trouble with parents. Homework and extra schoolwork reached statistical significance, but Beta weights only achieved $-.082$ and $-.050$, respectively. Involvement was found to increase the ability to predict delinquency by only one percent (the lowest of the four elements of the social bond). The greatest single predictor of delinquency was commitment, which increased the ability to predict delinquency by 10.9 percent. However, all four bonds considered together increased the ability to predict delinquency by 31.8 percent.

Hirschi noted that research contemporary to the publishing of *Causes of Delinquency* failed to support a negative correlation between involvement in conventional activities and delinquent acts. Yet, he insisted, “In theoretical statements, in practical programs, and in the common sense, the idea of involvement remains central to much thinking about the causation and prevention of delinquency” (1969, p. 188). Hirschi proposed that research failed to support an involvement hypothesis because it is extremely difficult to separate measures of involvement from the other social bonds.

Interrelation of the Bonds

Hirschi (1969) insisted that the bonds are interrelated. Strengthening one bond will also increase the strength of the others. For example, as Agnew and Petersen (1989, p. 333) explained, “Engaging in pleasurable leisure activities with parents will increase the adolescent’s

level of attachment to parents, which is then assumed to reduce delinquency.” Sports programs could expose youths to and increase their attachment with conventional role models.

Supporting Literature

Sports. While little research has concentrated on the element of involvement as espoused by Hirschi, researchers have sought to determine whether sports have a positive effect on people. Sports are the most popular leisure activity engaged in by adolescents (Agnew & Petersen, 1989). Research has shown that participation in sports may increase a person’s social status and self-esteem (Wankel & Berger, 1990). Playing on sports teams may even increase a person’s ultimate educational level by encouraging the person to complete high school and college in order to be able to participate in their sporting programs.

There is some research supporting the concept that involvement in sports reduces the likelihood of committing delinquent acts. In 1992-1993, Le Blanc and Kaspy (1998) interviewed 506 adjudicated boys ages 12 to 18 years in the Canadian province of Quebec. The researchers found that the boys who engaged in more serious delinquency were less involved in sports and attended arcades more frequently.

Phoenix, Arizona, created a City Streets/At-Risk Youth Division that provides a wellness program and a mobile recreation unit for youth in the city (McCann & Peters, 1996). Youths picked up for curfew violations in Phoenix are taken to a recreation center. There, counselors talk to the youths while they wait for their parents. Counselors then follow-up by telephoning the youths and inviting them to participate in the center’s recreational activities. The division also partners with businesses and other governmental agencies to provide golfing programs,

swimming programs, and tournaments in a variety of sports. Comparing statistics from the year previous to the implementation of the programs with the year following their implementation, arrests of juveniles for crimes dropped 10.4 percent and calls to police complaining of juveniles committing crime dropped by 52 percent. Also, while the rate of violent crime in the city rose overall by 6.7 percent, the rate of violent crimes committed by juveniles rose by only half a percentage point.

Agnew and Petersen (1989) discovered a negative relationship between organized leisure activities and total and serious delinquency. When activities were broken down into categories, noncompetitive sports were negatively related to participation in delinquency. No significant relationship was revealed between competitive sports and delinquency, but the researchers posited that this could be due to their inability to distinguish between supervised and unsupervised sports. Social activities were positively related to delinquency, and “hanging out,” the antithesis of involvement, was positively related to total and serious delinquency.

In a study comparing independent skateboarders and school-sponsored baseball players, Browne and Francis (1993, p. 390) reported that the school-sponsored athletes received better grades than the independent sports participants, and that “positive self-evaluations were associated with degree of sports involvement.” Marsh (1993) found that, while grades were not significantly related to participation in sports, individuals who had participated in sports programs during high school were more likely to participate in academically challenging courses and to attend college. Heimer and Matsueda (1994, p. 383) found that, “Strong ties to conventional institutions exert significant total effects on delinquency.” In addition to the direct

effects, these ties could reduce delinquency indirectly by increasing the elements of attachment and commitment.

Hines and Groves (1989) found that youths participate in sports as a social outlet. They also found that coaches' evaluations of players affected the players' self-esteems. In a study of children involved in a swimming program, Miller (1989) determined that the self-concepts of "advanced beginners" increased as skill increased and that self-concept remained stable or slightly increased for all swimmers involved. There has also been evidence that coaches with supportive attitudes could have a positive effect on children with low self-esteem (Smith & Smoll, 1990). Wood, Pfefferbaum, and Arneklev (1993) found that delinquency was related to excitement and thrill seeking. Sports could provide an outlet for those desires and, therefore, decrease the incidence of delinquent behavior. In examining court records, Landers and Landers (1978) found that delinquency rates were highest for youths who did not engage in extracurricular activities. The type of extracurricular activity did not seem to matter. Athletics and other forms of activity had similar results.

Schoolwork. Wiatrowski et al (1981) found that involvement in schoolwork was negatively related to delinquent activity. Similarly, Agnew (1993) found that time spent on homework was negatively related to delinquency, but the standardized Beta was only -.08. Hirschi also found that time spent on schoolwork was negatively correlated to delinquency, while feelings of boredom were positively correlated with delinquency. If sporting programs, especially those sponsored by schools, relieve feelings of boredom and increase the elements of commitment and attachment to school, then involvement in such programs may have the effect of

reducing delinquency. The requirement for a certain grade-point average to participate in sports could help by causing the juvenile to spend more time on schoolwork. An increase in commitment could also lead to an increase in the belief that the individual should obey society's rules.

Contradicting Literature

Sports. Some studies have found that involvement in sports is correlated with higher incidences of delinquency. Paetsch and Bertrand (1999) had such a finding and theorized that contact sports may endorse the use of violence by children. Football coaches often subject their apprentices to verbal abuse and condone violence in the game, and football players often experience increased levels of anger (Bennett, 1990; Beyer & Hannah, 2000; Lombardo, 1986). Branscombe and Wann (1992) reviewed literature on aggression by sports spectators. They concluded that sports fans engage in aggression and hostility as a means of enhancing self-esteem while watching sporting events (Branscombe & Wann, 1992). In a study of nine colleges and universities, Crosset, Ptacek, McDonald, and Benedict (1996) found that three percent of the total male student population was athletes, but they accounted for 35 percent of the incidents of reported male-on-female acts of violence.

Sports competition has been shown to increase frustration and lead to increased predisposition for violent actions by players and spectators. The commercialism of sports has led to a "win at all costs" attitude among players (Tenenbaum et al., 1997). In a literature review, Bennett (1991) examined the reasons that educators favor football. He found that most educators based their support of football programs on the catharsis theory, which proposes that expressing

aggressive behavior reduces feelings of aggression, therefore, resulting in less aggressive behavior. Bennett noted that the behavioral sciences had concluded that playing football does not reduce aggression. He further noted that large, muscular male students possessing athletic talents are encouraged to participate in football, rather than children who display violent emotions.

Employment. Hirschi found that boys who worked were slightly more likely to engage in delinquent acts than boys who did not work were. More contemporary research has confirmed this finding. Reviewing data from the first three waves of the National Youth Survey, Smith, Visher, and Jarjoura (1991) used various statistical methods to examine the effects of a job on delinquency. The researchers found that work was consistently related to increased delinquency.

Dukes, Martinez, and Stein (1997) examined data from students enrolled in secondary schools in six districts of the Pikes Peak area in Colorado during 1992. All respondents were administered questionnaires that included measurements for gang membership, alcohol, tobacco, and drug use, and delinquency. Some students were also asked about work. The researchers found that involvement in work was positively associated with membership in gangs.

Wright and Cullen (2000) studied interview responses from 326 youths in eight northeast Tennessee high schools who reported that they were working or had worked during the previous year. Although the students were not selected through random methods, the researchers noted that the findings were similar to those of other studies. Respondents were asked about theft at work, damaging employers' property, alcohol and drug use at work, shortchanging customers, reporting more hours on time cards than were actually worked, and falsely calling in sick. The

researchers found that employment led to association with delinquent peers on the job. The researchers further discovered “that associating with delinquent peers on the job may increase delinquency outside of the workplace” (p. 883).

Wright, Cullen, and Williams (1997) studied data from the 1988 National Survey of Families and Households. There were 13,079 respondents from 9,643 households. The researchers considered only data for children aged 12 to 18 years who were enrolled in school. Randomly chosen parents were interviewed regarding their children, including whether the parents had been asked to meet with school officials because of the child’s behavior and whether the child had ever bullied others or been suspended from school, been in trouble with police, treated for emotional or behavioral problems, or experienced alcohol or drug problems. Parents were also asked the number of hours during the previous week that their children had spent involved in paid work. The researchers found that the number of hours spent at paid work was positively related to delinquency and the relationship was statistically significant, although the effect was small with a beta weight of only .05. Analyzing the effect of work by gender, work intensity led to increased delinquency among boys, but failed to reach statistical significance for girls. The researchers discovered that the number of hours spent at employment increased delinquency by reducing the effects of other elements of the social bond. It reduced school commitment for low-risk boys and girls. For high-risk boys, paid work directly increased delinquency and also reduced school commitment and parental attachment. The researchers concluded, “Work intensity [the amount of time spent working] reduced the direct controls exerted by parents over their children; that is, as youths work, their parents’ control over them

appears to weaken” (p. 214).

Dating. Hirschi also found that boys who dated were significantly more likely to engage in delinquent acts than boys who did not date. Reviewing data from the Youth in Transition Survey, Agnew (1993) also found dating to be positively related to delinquency, with a standardized Beta of .33. The positive correlation between these activities and delinquent behavior is problematic to the involvement hypothesis. Because these conventional activities are positively correlated with delinquency, other conventional activities, such as sports, may also have a positive relationship with delinquent acts. Hirschi reasoned that the type of activity in which a juvenile engages affects the other elements of the bond. Working and dating (and playing sports) may reduce the attachment or commitment elements, thereby allowing delinquency to occur (Agnew, 1993).

Criticisms of Social Bond Theory

Hirschi failed to fully explain how the bonds are interrelated. He did discuss briefly how they might be related, but he did not attempt to test the interrelations empirically (Thornberry et al, 1991). A further criticism of social bond theory is that it does not explain why, after bonds are weakened or broken, some individuals become delinquent and some do not (Wiatrowski et al, 1981). Social bond theory ignores biological factors altogether (Jeffrey, 1989).

Hirschi’s proposition that involvement reduces the incidence of delinquency by keeping youths too busy to engage in it fails to recognize the fact that delinquent behavior requires very little time to commit (Agnew & Petersen, 1989). Hirschi admitted that even youths who engage in the most delinquent activities probably spend only a few hours each year actually engaged in

delinquent activity. Youths could easily engage in both conventional activities and delinquent activities.

Involvement in conventional activities could have a negative effect on delinquency unrelated to the amount of time spent. Rational choice theory describes individuals as considering, at least to some degree, the consequences or benefits of the activities in which they spend their time. If an individual values leisure activities that inhibit or are neutral with respect to delinquency, they are likely to choose the leisure activity instead of the delinquent behavior (Agnew & Petersen, 1989). Lower rates of delinquency would occur from an attraction to activities that leave the individual with less desire for delinquency rather than from a lack of time to become involved in delinquency. “If extracurricular activities are a source of peer prestige, those most involved in extracurricular activities should also be less likely to deviate from prescribed social norms” (Landers & Landers, 1978, p. 300).

CHAPTER 3

METHODOLOGY

The Sample

Data for this study were obtained from the first wave of the National Youth Survey (NYS) conducted by the Behavioral Research Institute of the University of Colorado. The sample for the survey was selected in 1976, at which time the respondents were aged 11 through 17 years (Elliott et al., 1985). Youths were selected from households in the continental United States through probability sampling. Multistage cluster sampling was employed, with the sample weighted so that the probability of selection was proportional according to the population size of the various areas of the country.

Approximately 8,000 of the 67,266 households listed through the sampling procedure were chosen for the sample, with all youths aged 11 through 17 years living in these households eligible for inclusion, provided they were considered mentally and physically capable of completing interviews. Approximately 2,360 youths from these households were identified as eligible for inclusion in the study. A total of 1,725 youths completed the survey. Twenty-seven percent (N=635) of the eligible youths did not complete interviews because their parents did not give consent, the youth refused to participate, or the researchers were unable to contact them. The age, sex, and race of youths not participating in the interviews appear to approximate those who did complete interviews. The sample is sufficiently large enough that it should be generalizable to all youths in the United States.

Strengths and Weaknesses of the NYS

“In self-report studies of delinquent and criminal behavior, in retrospective case history, in other testimony, potential bias in reporting from memory often is overlooked,” (Gottfredson, 1989, p. 9). With any self-report data, there is the possibility that reported behaviors will be exaggerated or falsified, and researchers can do little to protect data from such corruption. Researchers can take steps to protect data from corruption due to unintentional errors. Interviews were conducted January through March, with questions regarding the previous calendar year. By conducting the interviews soon after the time period concerned, the researchers minimized the likelihood of data corruption through memory loss. Telescoping (reporting information that occurred prior to or after the period concerned) should also be minimized by the timing of the interviews.

Delinquency and Involvement in Sports

The National Youth Survey was chosen for this study because it included questions allowing for the measurement of delinquency and for involvement in sports. Questions include whether the respondents participated in school athletic programs, how much time was spent engaged in these sporting programs, and how important school athletics were to the respondents. Unfortunately, the data do not include sports outside the school setting, so the effects of sports programs sponsored by organizations other than schools and games that occur spontaneously are not available. Data regarding community activities may include sports, but the available information does not specify whether community activities participated in by respondents were

sports or some other type of activity.

Questions in the National Youth Survey also measure the amount of delinquency engaged in by respondents. Property crimes were measured by questions involving damaging property, stealing items of various values, and breaking into automobiles or buildings. Violent crimes were calculated by questions involving assault and robbery. Drug offenses were also covered, including both use and distribution.

Operationalization

Involvement Measures

Involvement in Sports. One independent variable examined measured the amount of time spent on sporting activities (see Table 3.1). This variable combined questions involving how many afternoons during the school week were spent on sports activities, how many evenings during the school week were spent on sports activities, and how much time was spent on sports activities on weekends. The first two questions were both coded as 0 to 5 for the number of afternoons or evenings. The latter question was coded 1 for very little time, 2 for not too much time, 3 for some time, 4 for quite a bit of time, and 5 for a great deal of time.

Table 3.1
NYS Questions Used to Measure Involvement in Sports

22. On the average, how many weekday afternoons, Monday through Friday, from the end of school or work to dinner, have you spent on team activities?
0 – 5, with 0 being everything less than once a week
23. On the average, how many weekday evenings, Monday through Friday, from dinnertime to bedtime, have you spent on team activities?
0 – 5, with 0 being everything less than once a week
24. On the weekends, how much time have you generally spent on team activities?
1 = very little
2 = not too much
3 = some
4 = quite a bit
5 = a great deal

These three questions were combined into one variable with a possible score of 1 to 15. Actual responses covered the entire range from 1 to 15. If the hypothesis held true that involvement in sports and likelihood of delinquency have an inverse relationship, then the incidence of delinquent acts should have been higher for those with lower scores on the sports involvement measure and lower for those with higher scores on this variable.

Involvement in Community Activities. Another measure of involvement was related to community activities (see Table 3.2). In addition to measuring involvement in school-sponsored sports, the NYS included questions that measured involvement in community activities such as Scouts, Little League, YMCA, and YWCA. Unfortunately, the NYS measured only formal activities. While some of the community activities may involve sports, they exclude informal activities such as spontaneous ball games and may include activities that are not sports related.

The questions and possible responses regarding community activities were nearly identical to those for measuring involvement in sports. They were combined into a single variable (time in community) with possible scores of 1 to 15 and actual scores of 1 to 15.

Table 3.2 NYS Questions Used to Measure Involvement in Community Activities
<p>34. On the average, how many weekday afternoons, Monday through Friday, from the end of school or work to dinner, have you spent on these community activities? 0 – 5, with 0 being everything less than once a week</p> <p>35. On the average, how many weekday evenings, Monday through Friday, from dinnertime to bedtime, have you spent on these community activities? 0 – 5, with 0 being everything less than once a week</p> <p>36. On the weekends, how much time have you generally spent on these community activities? 1 = very little 2 = not too much 3 = some 4 = quite a bit 5 = a great deal</p>

Gender, Race, and Age

Gender was coded as a dummy variable (see Table 3.3). There were 918 male and 807 female respondents. Gender was coded as 1 = male, 2 = female.

Table 3.3
NYS Questions Used to Measure Gender, Race, and Age

Coding follows each question:

1. Gender

- 1 = Male
- 2 = Female

2. Ethnicity

- 0 = Nonwhite
- 1 = White

4. Age

- 11 – 17

Original NYS data coded race as a dummy variable with nine possible responses, including Anglo, Black, Mexican-American, Spanish American, Chicano, American Indian, Asian, Puerto Rican, and other. Race was recoded so that 0 = nonwhite, 1 = white. There were 364 respondents who answered that they were other than white, while 1,361 respondents claimed to be white.

Age was a ratio level variable that represented the respondent's age at the time the interview was completed. Respondents were aged 11 to 17 during the collection of the data used in this study. Two hundred fifty-two respondents were 11 years old, 257 were age 12, 269 were age 13, 258 were 14 years old, 253 were age 15 years, 239 were 16 years old, and 197 were age 17. The mean age was 13.87 years old and the mode was 13. Table 3.4 provides statistical summaries of the gender, race, and age variables.

	Gender	Race	Age
N	1725	1725	1725
Mean	1.47	.7890	13.87
Std. Error of the Mean	1.20E-02	9.827E-03	4.68E-02
Median	1	1	14
Mode	1	1	13
Std. Deviation	.50	.4081	1.94
Variance	.25	.1666	3.78
Range	1	1	6
Minimum	1	0	11
Maximum	2	1	17
Sum	2532	1361	23933

Delinquency Measures

The National Youth Survey included several questions designed to measure delinquency. Respondents were asked how many times during the last year they had been involved in several illegal activities. The questions were all coded as 0 through 999 for the number of times that respondents estimated that they had engaged in each activity during the past year, with 999 being the maximum value. Four dependent variables were constructed from the data for this study. The dependent variables considered violent offenses, property offenses, drug offenses, and total delinquency.

Violent Delinquency. The first dependent variable examined violent crime and considered questions involving aggravated assault, sexual assault, gang fights, hitting a teacher, hitting a parent, hitting a student, strong armed robbery of students, strong-armed robbery of teachers, and strong-armed robbery of others. Nine questions were combined into one variable

(violent delinquency) used to measure violent offenses, resulting in possible scores of 0 to 8,991.

Actual scores ranged from 0 to 1,468, with a mean of 8.3261 (see Table 3.5).

Table 3.5 NYS Questions Used to Measure Participation in Violent Offenses
How many times in the last year have you:
238. Attacked someone with the idea of seriously hurting or killing him or her?
244. Been involved in gang fights?
256. Hit or threatened to hit a teacher or other adult at school?
258. Hit or threatened to hit one of your parents?
260. Hit or threatened to hit other students?
272. Had or tried to have sexual relations with someone against their will?
274. Used force or strong-arm methods to get money or things from other students?
276. Used force or strong-arm methods to get money or things from a teacher or other adult at school?
280. Used force or strong-arm methods to get money or things from other people, not students or teachers?
Responses to questions regarding violent delinquency were coded 0 to 999.

Property Delinquency. The second measure of delinquency involved property crimes. The questions (see Table 3.6) included were those involving damaging family property, damaging school property, damaging other property, stealing a motor vehicle, stealing something worth more than \$50, stealing something worth \$5 to \$50, stealing something worth less than \$5, stealing from family, stealing at school, and breaking into a building or vehicle. There were 10 questions selected from the NYS regarding property offenses, resulting in a possible score of 0

for youths who reported that they had never engaged in any of the offenses during the previous year to 9,990 for youths who would have reported engaging in each behavior the maximum number of times allowed by the data collection technique. Actual scores ranged from 0 to 1,039, with a mean of 5.2375.

Table 3.6 NYS Questions Used to Measure Participation in Property Offenses
How many times in the last year have you:
214. Purposely damaged or destroyed property belonging to your parents or other family members?
216. Purposely damaged or destroyed property belonging to a school?
218. Purposely damaged or destroyed other property that did not belong to you, not counting family or school property?
220. Stolen or tried to steal a motor vehicle, such as a car or motorcycle?
222. Stolen or tried to steal something worth more than \$50?
236. Stolen or tried to steal things worth \$5 or less?
254. Stolen money or other things from your parents or other members of your family?
286. Stolen or tried to steal things worth between \$5 and \$50?
288. Stolen or tried to steal something at school, such as someone's coat from a classroom, locker, or cafeteria, or a book from the library?
290. Broken or tried to break into a building or vehicle to steal something or just to look around?
Responses to questions regarding property delinquency were coded 0 to 999.

Drug Delinquency. Drug and alcohol offenses were measured by the questions (see Table 3.7) involving selling marijuana, selling hard drugs, buying liquor for a minor (all respondents were minors themselves), engaging in public drunkenness, using alcoholic beverages, using

marijuana-hashish, using hallucinogens, using amphetamines, using barbiturates, using heroin, and using cocaine. Unfortunately, the available data only included ordinal level measures for several of the drug related questions, so interpretation and generalization of these data must be done with great caution. The questions were all coded as 1 for never, 2 for once or twice during the year, 3 for once every two to three months, 4 for once a month, 5 for once every two to three weeks, 6 for once a week, 7 for two to three times per week, 8 for once each day, and 9 for several times per day. Eleven questions were pulled for this category, resulting in possible scores of 11 to 99. Actual scores ranged 11 to 62 with a mean of 13.2852.

Table 3.7
NYS Questions Used to Measure Participation in Drug and Alcohol Offenses

How many times in the last year have you:

246. Sold marijuana or hashish?

264. Sold hard drugs such as heroin, cocaine, and LSD?

268. Bought or provided liquor for a minor?

284. Been drunk in a public place?

312. Used alcoholic beverages, beer, wine, hard liquor?

314. Used marijuana or hashish?

316. Used hallucinogens, LSD, acid, peyote, mescaline (psychedelics)?

318. Used amphetamines, uppers, speed, whites? (Dexedrine, benzedrine, diet pills, dexamyl, STP, bennies)

321. Used barbiturates, downers, reds? (phenobarbital, prescription sleeping pills, seconals, goof balls, yellow jackets, or nembutal)

324. Used heroin? (horse, H, smack, junk)

327. Used cocaine? (coke, snow)

Responses to questions regarding drug delinquency were coded according to the following scale:

- | | | |
|---------------------------|--------------------------|----------------------|
| 1 = never | 4 = once a month | 7 = 2-3 times a week |
| 2 = once or twice a year | 5 = once every 2-3 weeks | 8 = once a day |
| 3 = once every 2-3 months | 6 = once a week | 9 = 2-3 times a day |

Total Delinquency. The three categories of delinquency were also combined into a single variable intended to measure total delinquency. Interpretation of statistics involving this variable also requires extra caution. While data regarding violent and property offenses were measured at the ratio level, available data measured drug offenses at the ordinal level. Possible scores for this variable ranged from 11 for youths who reported never engaging in any of the delinquent activities during the previous year to 19,080 for youths who may have reported engaging in each violent and property offense examined 999 times and each drug offense activity two to three times a day. Actual scores ranged from 11 to 1,698 with a mean of 26.8835.

Study Design

The Statistical Package for Social Sciences (SPSS) computer program was used to evaluate the data. Results were considered significant if they reached the .05 confidence level. Data were examined in two ways. First, time spent involved in sports and time spent involved in community activities were compared through correlation matrixes with each of the delinquency measures.

The data were also analyzed through ordinary least squares regression (OLS). OLS allowed for the examination of causal analysis between one dependent variable and multiple independent variables (Allison, 1999). Each of the delinquency measures was used as a dependent variable regressed on time spent involved in sports, time spent involved in community activities, gender, age, and race as independent variables. Standardized Betas were examined to determine whether there was a relationship between the dependent and independent variables and the nature of any discovered relationship (positive or negative). Standardized Betas provided the

change, measured in standard deviation units, in the dependent variable caused by a one unit increase in a specified independent variable with all the other independent variables held constant. The hypothesis that involvement in sports reduces the likelihood of participating in delinquency was to be considered supported if the standardized Betas were negative and the relationship reached the specified significance level. The null hypothesis would not be rejected if the standardized Betas were positive, equaled zero, or failed to reach statistical significance.

While some assumptions of OLS must be violated to conduct this study, the assumptions violated should be robust enough that results will still be generalizable. The respondents interviewed for the National Youth Survey were selected through probability sampling. Homoscedasticity, the assumption that there are equal variances in the dependent variable across the measurement of the independent variable, is very robust and can be violated to a large degree without causing statistical problems. Multicollinearity, the existence of a linear relationship between at least two independent variables, was not a problem with this study. The greatest bivariate correlation between independent variables was between time in sports and age ($r = .248$). Multicollinearity does not become a problem until Pearson's r approaches $.7$. OLS should not cause statistical concerns with this study.

CHAPTER 4

RESULTS AND DISCUSSION

The research hypothesis that involvement in school sponsored sports programs and participation in delinquency have significant negative relationships was tested in two ways. A correlations matrix was examined to determine the nature of any relationships between involvement in sports and engagement in bivariate correlations. The relationships between involvement in school sponsored sports and community activities were then tested in multiple regression analysis with gender, age, and race introduced as controls.

Descriptive Statistics

Analyses of a bivariate correlations matrix comparing the involvement measures with each of the delinquency measures failed to support the hypothesis, based on Hirschi's involvement element, that increased involvement in conventional activities produces less delinquency. Table 4.1 displays the correlations matrix.

Interestingly, involvement in school sponsored sporting programs was positively correlated with each measure of delinquency. However, involvement in sports only reached statistical significance in its relationship with drug offenses. The Pearson's correlation for this relationship was small, reaching only .124.

Involvement in community activities was also positively correlated with each measure of delinquency except property offenses, which did not reach statistical significance. Community activities did reach statistical significance in relationships with violent offenses and total delinquency. However, the Pearson's correlations were small in both instances, reaching .091 for

violent delinquency and only .061 for total delinquency. Table 4.2 displays descriptive statistics of the variables.

		Sports Involv.	Comm. Involv.	Viol. Del.	Prop. Del.	Drug Del.	Total Del.
Sports Involv.	Pearson Correlation	1.000	.216	.037	.029	.124	.045
	Sig. (1-tailed)	.	.000	.148	.206	.000	.099
	N	822	497	817	822	818	815
Comm. Involv.	Pearson Correlation	.216	1.000	.091	-.011	-.018	.061
	Sig. (1-tailed)	.000	.	.004	.370	.303	.035
	N	497	878	872	875	873	867
Viol. Del.	Pearson Correlation	.037	.091	1.000	.477	.059	.907
	Sig. (1-tailed)	.148	.004	.	.000	.007	.000
	N	817	872	1708	1706	1702	1700
Prop. Del.	Pearson Correlation	.029	-.011	.477	1.000	.128	.779
	Sig. (1-tailed)	.206	.370	.000	.	.000	.000
	N	822	875	1706	1714	1706	1700
Drug Del.	Pearson Correlation	.124	-.018	.059	.128	1.000	.155
	Sig. (1-tailed)	.000	.303	.007	.000	.	.000
	N	818	873	1702	1706	1711	1700
Total Del.	Pearson Correlation	.045	.061	.907	.779	.155	1.000
	Sig. (1-tailed)	.099	.035	.000	.000	.000	.
	N	815	867	1700	1700	1700	1700

Correlations significant at the .05 level are shown in **bold**

Variable	N	Range	Min.	Max.	Mean	Std. Dev.	Variance
Sports	822	14	1	15	6.9453	2.9889	8.934
Comm. Act.	878	14	1	15	5.5957	2.8996	8.408
Viol. Del.	1708	1468	0	1468	8.3261	59.9914	3598.973
Prop. Del.	1714	1039	0	1039	5.2375	39.4143	1553.488
Drug Del.	1711	51	11	62	13.2852	4.6615	21.729
Tot. Del.	1700	1687	11	1698	26.8835	86.0886	7411.253
Gender	1725	1	1	2	1.47	.50	.249
Age	1725	6	11	17	13.87	1.94	3.782
Race	1725	1	0	1	.7980	.4081	.167

Ordinary Least Squares Regression Models

Each measure of delinquency was examined in multiple regression equations incorporating time in sports, time in community activities, gender, age, and race as independent variables. OLS provides the first variable entered with the greatest advantage toward showing significance and the last variable entered with the least advantage, so the order in which the variables were entered was altered and the data analyzed again. The levels of statistical significance were unchanged by the order of entry of the variables.

Violent Delinquency.

For violent delinquency (see Table 4.3), gender was significant at the .043 level with a standardized Beta of -.093, indicating that female respondents engaged in violent delinquency at a slightly lower rate than male respondents. No other variable reached statistical significance. Although they did not achieve statistical significance and standardized Betas were low, both time spent on school-sponsored sports programs and time spent on community activities were positively correlated with violent delinquency. The overall model for the violent delinquency

regression equation failed to reach statistical significance with an F of 2.005, representing significance only at the .077 level.

Independent Variable	B	Std. Error	Standardized Beta	t	Sig.
Time in Sports	.720	1.139	.030	.632	.528
Community Act.	2.045	1.210	.078	1.690	.092
Gender	-14.156	6.971	-.093	-2.031	.043
Age	-1.311	1.852	-.033	-.708	.479
Race	-10.063	9.214	-.049	-1.092	.275
R = .142		F = 2.005			
R Square = .020		Sig. = .077			
Adjusted R Square = .010		Correlations significant at the .05 level are shown in bold			

Property Delinquency.

As shown in Table 4.4, the relationship between property delinquency and race was statistically significant at the .001 confidence level. The negative relationship indicated that white respondents reported engaging in property offenses at a lower rate than non-white respondents. However, the standardized Beta was only -.149.

Independent Variable	B	Std. Error	Standardized Beta	t	Sig.
Time in Sports	.369	.837	.021	.441	.660
Community Act.	-.550	.890	-.028	-.618	.537
Gender	-6.155	5.125	-.054	-1.201	.230
Age	-.457	1.361	-.016	-.336	.737
Race	-22.471	6.753	-.149	-3.328	.001
R = .163		F = 2.675			
R Square = .027		Sig. = .021			
Adjusted R Square = .017		Correlations significant at the .05 level are shown in bold			

Neither involvement in sports nor involvement in community activities reached statistical significance. However, one measure of involvement did fall in the negative direction. While time in sports repeated the positive relationship with property delinquency with a standardized Beta of .021, time in community activities had a negative relationship with property delinquency with a standardized Beta of -.028.

The overall regression model for property delinquency did reach statistical significance with an F of 2.675, significant at the .021 level. However, the model is not very useful. The adjusted R square of .017 indicates that property delinquency can be predicted only 1.7 percent better by knowing the independent variables.

Drug Delinquency.

The data for participation in drug delinquency were measured at the ordinal level, so results should be interpreted with caution. Drug delinquency and gender were negatively related (see Table 4.5), indicating that female respondents reported engaging in drug-related delinquency at a lower rate than male respondents. The standardized Beta was -.083 and the significance level was .047. Age was significantly related to drug delinquency at .000 confidence level and a positive standardized Beta of .098, indicating that drug-related delinquency increased with the age of the respondents. No other variables examined reached a significance level of .05. Both time in sports and time in community activities fell in the positive direction but were nonsignificant.

Table 4.5 Multiple Regression Analysis for Dependent Variable Drug Delinquency					
Independent Variable	B	Std. Error	Standardized Beta	t	Sig.
Time in Sports	3.424E-02	.060	.025	.569	.569
Community Act.	9.252E-02	.064	.061	1.445	.149
Gender	-.733	.368	-.083	-1.993	.047
Age	.907	.098	.397	9.289	.000
Race	.267	.487	.023	.549	.583
R = .427		F = 21.734			
R Square = .182		Sig. = .000			
Adjusted R Square = .174		Correlations significant at the .05 level are shown in bold			

The overall regression model showed the most promise. The adjusted R square of .174 indicated that drug delinquency could be predicted 17.4 percent better by knowing the independent variables included. The model was also statistically significant with an F of 21.734, statistically significant to the .000 level.

Total Delinquency.

Some of the data used to gauge total delinquency were measured at the ordinal level, requiring extra caution in interpreting results. As shown in Table 4.6, total delinquency was significantly and negatively related to gender with a standardized Beta of -.092 and a significance level of .045. Again, this negative slope indicates that female respondents engaged in less total delinquency than male respondents. Age had a significance level of .020 and a standardized Beta of -.105, indicating that respondents reported engaging in less total delinquency as their age increased. Again, involvement in sports and involvement in community activities both had positive slopes but failed to reach statistical significance.

Table 4.6 Multiple Regression Analysis for Dependent Variable Total Delinquency					
Independent Variable	B	Std. Error	Standardized Beta	T	Sig.
Time in Sports	1.133	1.727	.031	.656	.512
Community Act.	1.569	1.836	.040	.855	.393
Gender	-21.256	10.563	-.092	-2.012	.045
Age	-.902	2.806	-.015	-.321	.748
Race	-32.729	14.036	-.105	-2.332	.020
R = .155		F = 2.393			
R Square = .024		Sig. = .037			
Adjusted R Square = .014		Correlations significant at the .05 level are shown in bold			

The overall regression model for total delinquency reached statistical significance with an F of 2.393. It was significant to the .037 level of confidence. Adjusted R square indicated that total delinquency could be predicted 1.4 percent better by knowing the independent variables.

Summary of Results.

In bivariate correlations, involvement in school sponsored sports programs had positive correlations with each delinquency measure, although it reached statistical significance only with drug offenses. While involvement in community activities had negative bivariate correlations with property and drug offenses, it reached statistical significance only in positive correlations with violent offenses and total delinquency. Pearson's correlations were consistently small, with .124 correlation between involvement in community activities and participation in drug offenses representing the greatest correlation achieved between the involvement and delinquency measures.

In multiple regression equations, involvement in school sponsored sports programs and involvement in community activities failed to reach statistical significance with any of the

delinquency measures. Involvement in community activities had a negative slope only when regressed with property offenses. Involvement in sports consistently had positive slopes with each delinquency measure. Even though nonsignificant, the slopes were small with .078 representing the greatest standardized Beta achieved in any of the involvement and delinquency regression equations.

CHAPTER 5

CONCLUSION

Summary

The research hypothesis that involvement in sports and participation in delinquency have a negative relationship was not supported. The null hypothesis was not rejected due to the lack of significant negative slopes between the involvement measures and the delinquency measures in multiple regression equations. The only significant relationship involving sports was a weak positive one found in bivariate correlation with drug delinquency. Although the effect was quite small, these results indicated that involvement in school sponsored sports resulted in increased participation in delinquent acts, not the strengthening of social bonds and resulting lowering of delinquency rates that was predicted by Hirschi. However, this positive correlation disappeared when controls were entered in multiple regression equations. Time in sports did not reach statistical significance with any measure of delinquency in multiple regression, with a highest significance level of only .512 (with total delinquency).

The data measuring involvement in community activities had similar results to those for involvement in school sponsored sports. Bivariate correlations were negative for property and drug offenses, but significance was attained only in positive correlations with violent and total delinquency ($r = .091$ and $.061$, respectively). In multiple regression, time in community activities also failed to reach statistical significance with any of the delinquent measures. The only regression equation with a negative slope was with property delinquency (standardized Beta was $.112$, but significance was only $.537$).

Unfortunately, data available to the researcher from wave one of the National Youth Survey do not include the type of sports programs in which youths participated. There may be a difference between participation in contact sports such as football and non-contact sports such as tennis. The data regarding community activities were also vague. The specific types of community activities in which the youths engaged are not included in the data. If the majority of these activities were sporting programs, then the results should have been similar to those for school-sponsored sports. However, if the community activities were primarily activities besides sports, then these results would more strongly question the benefits of the involvement element in strengthening social bonds and reducing delinquency.

One possible reason for the failure to achieve significant negative regression equations between involvement in sports and delinquency is that the time spent on activities outside the home or family serves to weaken rather than strengthen social bonds, even if the activities are approved by conventional society. Another possible reason is that coaching styles may predominantly stress “winning at any cost” rather than playing fair. If a youth has bonded with coaches and other individuals who take such a stance, the result may be the weakening of the social bonds that prohibit delinquency. Some sporting games tend to recognize the violation of rules as a legitimate part of the game. For instance, basketball players are often encouraged to foul other players to keep them from scoring baskets. Sports may attract a certain type of individual who is already predisposed to delinquency and who enjoy sports because of the excitement and aggressiveness inherent in the play. The media also may play a part in the

positive correlation between some delinquent behaviors and involvement in sports. As Tenenbaum, Singer, and Duda (1997, p. 148) stated:

The media must become more responsible in its reporting of sport. There is no need to replay examples of violence and aggression in sport. The focus should be on the skills demonstrated and strategies employed by athletes and coaches rather than on acts of aggression. There are many sensitive and humane athletes and coaches who are involved in sport at all levels. Attempts should be made to present these individuals in a favorable light and give them greater media coverage.

It is quite possible that “sport, like most activities, is not ‘a priori’ good or bad but has the potential for producing both positive and negative outcomes” (Wankel & Berger, 1990, p. 167). Sports might have reduced the delinquency of some respondents and increased the delinquency of others. The effects averaged out to nonsignificance in the statistics.

Potential Policy Implications

Evidence from this study does not support the implication or continuance of sporting programs designed to reduce the incidence of delinquency. However, all positive relationships between involvement and delinquency were nonsignificant. Therefore, sports programs intended to improve the physical and/or emotional well being of individuals should be retained.

Future Directions

Further research is needed in the area of sports and delinquency. The data used in this study were a quarter of a century old. Coaching styles may have changed over this time frame.

A modern version of the National Youth Survey could result in much different responses.

Survey questions should also be designed to record type of sports and coaching styles perceived by the youths.

Further research should also seek to define the types of personalities that are attracted to sports. Individuals with “thrill-seeking” characteristics may be delinquency-prone and attracted to sports. If so, they may be masking negative relationships between sports and delinquency for individuals without thrill-seeking characteristics.

Conclusion

Children and adults need the physical benefits that result from playing sports. There may also be some emotional benefits from the activities. However, sports programs as a solution to problems of delinquency should not be espoused without further research. Instead, programs designed to reduce the incidence of delinquency should concentrate on areas other than sports or should combine sports with other activities such as counseling.

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