



GRADUATE SCHOOL
EAST TENNESSEE STATE UNIVERSITY

East Tennessee State University
Digital Commons @ East
Tennessee State University

Electronic Theses and Dissertations

Student Works

5-2015

Social Disorganization, Extra-Curricular Activities, and Delinquency

Robyn G. Dougherty Ms.
East Tennessee State University

Follow this and additional works at: <https://dc.etsu.edu/etd>



Part of the [Criminology Commons](#)

Recommended Citation

Dougherty, Robyn G. Ms., "Social Disorganization, Extra-Curricular Activities, and Delinquency" (2015).
Electronic Theses and Dissertations. Paper 2476. <https://dc.etsu.edu/etd/2476>

This Thesis - unrestricted is brought to you for free and open access by the Student Works at Digital Commons @ East Tennessee State University. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons @ East Tennessee State University. For more information, please contact digilib@etsu.edu.

Social Disorganization, Extra-Curricular Activities, and Delinquency

A thesis

presented to

the faculty of the Department of Criminal Justice

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Master of Arts in Criminal Justice & Criminology

by

Robyn Dougherty

May 2015

Gregory Rocheleau, Chair

Larry Miller

John Whitehead

Keywords: Extra-curricular Activities, Delinquency, Neighborhood Conditions

ABSTRACT

Social Disorganization, Extra-Curricular Activities, and Delinquency

by

Robyn Dougherty

Neighborhood social disorganization has been found to be related to crime and deviance. In explaining this relationship, most have focused on specific factors of informal social control and collective efficacy. Using data from the 2000 National Household Survey on Drug Abuse ($n = 12,800$), the relationship between social disorganization and delinquent outcomes was examined by looking at extra-curricular activities as intervening mechanisms with logistic regression in SPSS. While the effect of social disorganization on delinquency remained significant, results indicated some evidence of mediation when accounting for extra-curricular activity measures predicting binge drinking. Specifically, the coefficient for social disorganization was reduced and significant at a lower threshold once extra-curricular activity measures were added in the models. Also, findings indicated different patterns of relationships found among the various extra-curricular activity categories concerning delinquent outcomes. Unlike other types of extra-curricular activities, increased involvement in athletic activities was related to increased participation in delinquency.

CONTENTS

	Page
ABSTRACT	2
Chapter	
1. INTRODUCTION	5
Statement of Problem	5
Limitations	6
Purpose of Study	7
Definitions of Key Terms	7
2. LITERATURE REVIEW	9
Neighborhoods and Crime	9
Explaining the Relationship Between Social Disorganization and Crime	14
Extra-Curricular Activities and Crime	16
Current Study: Neighborhoods, Extra-Curricular Activities, and Crime	19
3. METHODOLOGY	22
Data and Sample	22
Measurement	23

Dependent Variables	23
Independent Variables	24
Control Variables	25
Analytic Strategy	25
4. RESULTS	27
Background Literature	27
Descriptive Statistics	28
Multivariate Models	29
Delinquency	29
Binge Drinking	31
Conclusions	33
5. DISCUSSION	35
Limitations	38
Policy Implications	40
REFERENCES	42
VITA	49

CHAPTER 1

INTRODUCTION

Statement of Problem

Over time, society has experienced an increase in juvenile delinquency as the issue of adolescents engaging in criminal activity has become more common than before (Law Enforcement and Juvenile Crime, 2011). One way to measure juvenile delinquency is by reviewing the number of delinquency cases handled in juvenile court. In 2010, juvenile court systems throughout the United States handled an estimated 1.36 million delinquency cases, in which juveniles had committed acts that would be crimes if committed by adults (Law Enforcement and Juvenile Crime, 2011). According to Puzzanchera and Robson (2014), juvenile courts have handled 17% more cases in 2010 than in 1985 which supports the fact that juvenile delinquency has become more predominant today than in the past. The increase in percentage could be contributed to the notion that juveniles today are being processed through the court system more rather than actually committing more forms of crime and delinquency (Puzzanchera, Adams, & Sickmund, 2010). Nevertheless, when juveniles become more involved in the criminal justice system, it creates problems within communities and schools along with parents and the peers of the juvenile delinquent.

Social disorganization theory (Shaw & McKay, 1942) is one of many criminological theories that can be used to explain youth involvement in delinquency. Social disorganization theory focuses on the importance of neighborhood conditions such as residential mobility, concentrated disadvantage, and racial heterogeneity (Browning & Erickson, 2009; Porter & Vogel, 2014; Rountree & Land, 1996). These neighborhood conditions are thought to be related

to delinquency to the extent that they produce social control (Elliott, Wilson, Huizinga, Sampson, Elliott, & Rankin, 1996). Some researchers have attempted to capture this process by examining the extent to which collective efficacy, defined as “social cohesion among neighbors combined with their willingness to intervene on behalf of the common good” (Sampson, Raudenbush, and Earls, 1997, p. 918), accounts for the relationship between socially disorganized neighborhoods and crime (Browning & Cagney, 2002; Morenoff, Sampson, & Raudenbush, 2001).

Limitations

Previous research has examined specific types of mechanisms for explaining why social disorganization is related to crime. Kubrin and Weitzer (2003) suggested new directions to help explain the link between social disorganization and crime including the following concepts: informal control, social ties, social capital, collective efficacy and even reconsidering cultural background characteristics as an explanation. Out of these, the two concepts that have been studied frequently are informal social control (Bellair, 1997; Sampson & Groves, 1989) and collective efficacy (Browning & Cagney, 2002; Morenoff et al., 2001). Additional mechanisms that may also explain the relationship between neighborhood conditions and delinquency, however, have received far less attention by researchers (Kubrin & Weitzer, 2003).

Another limitation of previous studies is that an abundance of prior research used sample populations that reflected specific locations, such as Chicago neighborhoods. Such studies thus have limited external validity. For example, the social disorganization of neighborhoods in Johnson City, TN may be related to crime differently than the social disorganization of neighborhoods in Chicago, IL. More research using data from nationally representative samples is needed.

Purpose of Study

One additional mechanism yet to be considered to explain the link between social disorganization and delinquency is involvement in extra-curricular activities. The focus of involvement in extra-curricular activities as a predictor of crime and deviance is based largely on social control and routine activity theories (Bachman & Johnston, 1996; Coakley & Hughes, 1994; Watkins, 2000). Routine activity theory in particular suggests that it is not just involvement in any activities but those that are structured and supervised by capable guardians (i.e., adults) that are most likely to limit criminal opportunities among youth (Cohen & Felson, 1979). Neighborhoods that are more poorly organized may provide fewer opportunities for youth to be involved in structured activities, thereby impacting involvement in delinquency.

This study used data from the National Household Survey of Drug Abuse to examine relationships between social disorganization, binge drinking, and delinquency. The main focus of this study, however, was on the mechanisms that explained the relationships between neighborhood social disorganization and the delinquent outcomes. To this end, this study also examined the extent to which participation in extra-curricular activities mediated the relationship between social disorganization and each delinquent outcome (delinquency and binge drinking).

Definitions of Key Terms

Social Disorganization – Used to describe neighborhoods that have weakened social controls where criminal traditions and values collide with the traditions of conventional institutions (Shaw & McKay, 1942).

Juvenile delinquency – 1: Conduct by a juvenile characterized by antisocial behavior that is beyond parental control and therefore subject to legal action. 2: A violation of the law

committed by a juvenile and not punishable by death or life imprisonment (Merriam-Webster's online dictionary, 2015).

Binge Drinking – a pattern of drinking that brings blood alcohol concentration (BAC) levels to 0.08 g/dL. This typically occurs after 4 drinks for women and 5 drinks for men—in about 2 hours (National Institute on Alcohol Abuse and Alcoholism, 2013).

Extra-curricular – voluntary activities sponsored or sanctioned by a school that supplement or complement the school's instructional program but are not a part of it—for example, student government, interscholastic athletics, service clubs, drama and French clubs, and many others (Cary, 1992).

CHAPTER 2

LITERATURE REVIEW

Neighborhoods and Crime

Research has shown that social disorganization in neighborhoods can have an influence on juvenile delinquency (Bursik & Grasmick, 1993; Kubrin & Weitzer, 2003; Sampson & Groves, 1989). Shaw and McKay (1942) first introduced the term “social disorganization” to describe when neighborhoods have weakened social controls where criminal traditions and values collide with the traditions of conventional institutions. They studied neighborhoods in Chicago and found that several aspects within the neighborhoods were related to juvenile delinquency rates.

One neighborhood aspect that Shaw and McKay (1942) found to be related to delinquency was the physical status of the neighborhood. Specifically, they reported that neighborhoods with the highest delinquency levels were those located within or adjacent to areas of heavy industry. Another neighborhood aspect they found to be related to delinquency is the economic status of the neighborhood. When studying the economic status of areas, they found that low socioeconomic status areas were indirectly related to higher levels of delinquency; however, Shaw and McKay suggested that this was a result of population turnover due to people leaving undesirable, economically deprived neighborhoods. The last neighborhood aspect Shaw and McKay researched concerned the population composition, finding that areas containing higher numbers of foreign-born and African American heads of household were related to higher levels of delinquency. Being that delinquency rates changed while ethnicity remained the same,

they argued that it was not the ethnic composition of the area that caused crime but the conditions and characteristics of the neighborhood.

After Shaw and McKay (1942) proposed their theory of social disorganization, further empirical evidence supporting the concept followed. For example, Sampson and Groves (1989) examined the social disorganization theory of Shaw and McKay by first analyzing data from a sample of 238 people in Great Britain. The test was then replicated two years later from a sample of 300 people in Great Britain. Results from both of studies supported the work of Shaw and McKay and found that neighborhood variation, along with characteristics of the community, determine social disorganization which is related to criminal offending. Specifically, they found that low socioeconomic status, residential mobility, ethnic heterogeneity, and family disruption within neighborhoods and communities lead to property and violent offending among youth. In addition to the work by Sampson and Groves, there have been a plethora of studies on the relationship between neighborhood conditions and crime (Austin, Furr, & Spine, 2004; Bursik & Grasmick, 1993; Bursik & Webb, 1982; Pratt & Cullen, 2005; Sampson, 1985).

One neighborhood characteristic that has been shown to affect crime in a manner consistent with social disorganization is residential mobility (Boggess & Hipp, 2010; Bursik & Webb, 1982; Porter & Vogel, 2014; Smith & Jarjoura, 1989). For example, Bursik and Webb (1982) examined the work of Shaw and McKay's own data across a 30-year period, based on three ten year intervals. They found that regardless of the specific groups of people moving in and out of neighborhoods, neighborhoods with higher levels of residential instability also had higher levels of delinquency; whereas those experiencing residential stability reported lower levels of delinquency.

In addition, Porter and Vogel (2014) studied how residential mobility can affect delinquency by using a sample across two waves of data from the National Longitudinal Study of Adolescent Health. This study supported the work of previous research and found that there is in fact a very strong link between residential mobility and general delinquency, as adolescents who moved had a delinquency rate 1.15 times greater than non-mobile adolescents. However, Porter and Vogel further investigated the relationship and found that background and neighborhood characteristics of the respondent, such as family structure, concentrated disadvantage, exposure to violence, desire to move, racial heterogeneity, parental unemployment, etc., suggested that certain adolescents are more likely to move than others in the first place. Moreover, they found that mobility was more common for those at-risk youth who have pre-existing risk factors and are already considered disadvantaged youth, thus raising concerns as to selectivity instead of causality in the nature of the residential mobility-delinquency relationship.

Concentrated disadvantage has been another neighborhood factor found to impact crime (Browning & Erickson, 2009; Krivo & Peterson, 1996; Wang & Arnold, 2008). For instance, Browning and Erickson (2009) tested neighborhood disadvantage as well as other neighborhood and individual level factors as they relate to violent victimization in a sample of high school students from Toronto, Canada. Results showed that the relationship between alcohol use and victimization varied by neighborhood disadvantage, but also that neighborhood disadvantage was critical in the explanation of violent victimization. Similarly, Wang and Arnold (2008) proposed that concentrated disadvantage (measured as income inequality and poverty) adds stress to individuals when they compare their situations to those around them. Looking at urban

neighborhoods in Chicago, they found that concentrated disadvantage was a strong predictor of homicide rates across census tracts, community areas, and neighborhood clusters.

Previous research within the social disorganization literature has also found racial heterogeneity as another neighborhood factor that predicted crime (Carson & Esbensen, 2014; Rountree & Land, 1996; Sampson, 1985). For example, Rountree and Land (1996) studied how heterogeneous neighborhoods could affect the relationship between neighborhood conditions and victimization. They found that neighborhoods with residents that had experienced dramatic changes in youth, elderly, and racial composition related to higher levels of victimization than those with less change due to the racial heterogeneity of the neighborhood itself, and not because social and physical problems were present there. Similarly, Sampson (1985) researched how various neighborhood factors could relate to personal criminal victimization by using a sample taken from the National Crime Survey. After testing several neighborhood characteristics, Sampson found that racial heterogeneity and inequality have some effect on victimization, but only when social integration, such as family structure and residential mobility, and opportunity factors were included.

Other researchers have studied additional characteristics of neighborhoods that can have an effect on crime (Ennett, Flewelling, Lindrooth, & Norton, 1997; Kling, Ludwig & Katz, 2005; Swisher, 2008). For example, Swisher (2008) and Kling et al. (2005) took into consideration how neighborhood characteristics and demographics outside of the social disorganization approach can impact youth crime specifically. The study by Swisher (2008) found that wealthy families and neighborhoods were more likely to have better resources such as schools, employment opportunities, organized positive youth-oriented social and developmental activities, and interaction of families within the neighborhood. These types of neighborhood characteristics,

along with family and individual characteristics, resulted in youth who possess normative behaviors and attitudes towards self-control, social skills, and actions towards others. Moreover, those types of behaviors and attitudes provided better developmental outcomes, including less involvement in delinquency.

Neighborhood characteristics rooted in social disorganization theory may also simply impact the fear of crime (Abdullah, Marzbali, Woolley, & Maliki, 2014; Lewis & Maxfield, 1980; Scarborough, Like-Haislip, Novak, Lucas, & Alarid, 2010). For example, the study conducted by Scarborough et al. (2010) tested to determine the effects that both individual characteristics and neighborhood characteristics could affect the fear of crime within a neighborhood. The study's sample came from a self-report survey mailed out to twelve randomly selected zip codes within the Kansas City, Missouri area, where individuals were asked questions regarding the level of fear, neighborhood disorder, social cohesion, and level of police/citizen satisfaction. Results showed that perceived disorder neighborhood structure was a strong predictor for fear of crime among citizens even after controlling for race, age, gender, and education. The indications from this particular study correspond with other research that has been conducted on the matter of how neighborhood structure and characteristics can have an impact on the feeling of safety among the community.

Social disorganization theory has thus received a substantial amount of support over the years, particularly with regard to the influence of neighborhood-level characteristics such residential mobility, concentrated disadvantage, and racial heterogeneity. Indeed, in a meta-analysis Pratt and Cullen (2005) reviewed over 200 empirical studies from 1960 to 1999 to assess which macro-level predictors can relate to crime based on various theories that have been proposed over time. They found evidence that the social disorganization variables were among

the best macro-level predictors of crime, especially measures of residential mobility, concentrated disadvantage, and racial heterogeneity.

Explaining the Relationship Between Social Disorganization and Crime

As discussed above, neighborhood-level characteristics consistent with social disorganization theory have been found to be related to crime and deviance. A number of researchers have attempted to explain the mechanisms through which socially disorganized neighborhoods affect crime (Bellair, 1997; Markowitz, Bellair, Liska, & Liu, 2001; Morenoff et al., 2001; Sampson & Raudenbush, 1999; Taylor & Covington, 1993). Two primary explanations have been informal social control and collective efficacy.

Informal social control can be defined as “residents’ efforts to prevent or sanction disorderly and criminal conduct through informal surveillance of the streets and direct intervention in problems” (Kubrin & Weitzer, 2003, p. 375-376). It has generally been used to explain the link between social disorganization and crime by inferring that social ties (like local friendship networks, recreational activities between neighbors, and attendance at local community meetings) may increase residents’ capacity to engage in social control over individuals in the community. Several studies have found that informal social control does account for some of the effect of socially disorganized neighborhoods on crime (Bellair, 1997; Pattillo, 1998; Sampson & Groves, 1989). For example, Bellair (1997) found that social control in the form of social ties among neighbors in the community (such as getting together once a year or more with neighbors) had the most consistent and generally strongest effect on burglary, motor vehicle theft, and robbery.

Other researchers have focused more closely on the interrelationships among neighbors as the primary mechanism explaining the social disorganization-crime relationship (Browning, Dietz, & Feinberg, 2004; Sampson et al., 1997; Simons, Simons, Burt, Brody, & Cutrona, 2005; Tuthill, 2012). This research views interpersonal relationships as the main facilitator of informal social control. Specifically, the concept of collective efficacy, or social cohesion and the willingness to intervene among neighbors has received a fair amount of attention (Sampson et al., 1997). Sampson et al. (1997) researched how collective efficacy can affect violence in neighborhoods in Chicago on both the neighborhood and individual level. They found that collective efficacy accounted for the association between social disorganization of neighborhoods, measured as residential instability and concentrated disadvantage, with various measures of violence. In other words, their study indicated that collective efficacy was one mechanism through which neighborhood characteristics affected crime.

Other researchers have further examined how collective efficacy relates to crime (Browning & Cagney, 2002; Morenoff et al., 2001). For example, the study conducted by Morenoff et al. (2001) researched the link between neighborhood inequality and collective efficacy to help explain urban violence with a focus on homicide. The sample for this study included 8,872 Chicago residents in 1995 and was taken from a combination of structural characteristics from the 1990 census. Their results showed that the most consistent predictors of variations in homicide were collective efficacy, spatial proximity to violence, and alternative measures of neighborhood inequality. The findings of the Morenoff et al. (2001) study supports the work mentioned previously of Sampson et al. (1997), which suggested that social ties are important for the control of crime due to them leading to the initiation of social control and mutual engagement among residents.

Extra-Curricular Activities and Crime

While informal control and collective efficacy have been used to explain the relationship between social disorganization of neighborhoods and crime, additional mechanisms may also be important. For example, in a review of social disorganization theory, Kubrin and Weizer (2003) pointed out that the above mechanisms only explain part of the relationship between neighborhood social disorganization and crime, and that future research should examine alternative ways in which social disorganization impacts crime. According to Kubrin and Weitzer, other research could examine factors such as the role of culture, formal social control, and urban political-economic and how these mechanisms relate to neighborhood crime. In addition, mechanisms that correspond to neighborhood social disorganization based on the type and amount of activities available for the public could be researched for their effects on crime.

One mechanism that may also explain the relationship between social disorganization and crime yet to be considered is related to routine activity theory. Cohen and Felson (1979) used an approach to explain crime in urban areas known as routine activity theory. They proposed that crime happens in the opportunity structure of routine activities in everyday life and identified the following three components as necessary for offending or victimization to occur: a motivated offender, described as the person engaging in the crime; a suitable target, described as the victim of the crime; and the absence of capable guardians, described as any formal or informal person present at the time that could potentially deter the criminal action. At the time, it was believed that the various activities of everyday life that people engaged in away from home caused crime. According to Cohen and Felson, all three components of the theory have to converge in the same place and time to result in crime.

Initially, Cohen and Felson had considered capable guardians to be formal adults who are present at the time of the crime; however, Felson later added in 1986 that a capable guardian could include informal “handlers” as well. The new addition allowed for the role of a handler because it differs from a guardian on the basis of relationship to the potential offender rather than to a valuable object or potential victim (Osgood, Wilson, O'Malley, Bachman, & Johnston, 1996). Sometimes there can be a guardian around the potential place for crime but also be ineffective as a deterrent. Even parents who monitor their own kids' activity are capable guardians, because if the juvenile is watched by the parent it limits the opportunity to engage in delinquent behavior (Siegel & Welsh, 2011). With the presence of capable guardians preventing the potential for a motivated offender to act upon a suitable target, the mere absence of a guardian permits crime to occur.

Research has supported the notion that the type of daily activities that one partakes in and the peers around them can affect involvement in delinquency (Burton & Marshall, 2005; Landers & Landers, 1978; Osgood et al., 1996). Osgood et al. (1996) distinguished between structured activities versus unstructured activities and placed an emphasis on the amount of structure in an activity which can influence or prevent deviant behavior. Unstructured activities involve no agenda for how time should be spent leading the adolescent to become more favorable to delinquency; whereas structured activities have the presence of organization while creating specific roles that can make adolescents responsible for social control while offering fewer opportunities for delinquency. They examined changes in routine activities and deviance across five waves of data for 18 to 26 year olds, finding that unstructured socializing increased the opportunity for participation in crime, heavy drinking, and risky driving.

In addition to Osgood et al. (1996), a number of studies have more generally found a relationship between extra-curricular activities and crime (Coakley & Hughes, 1994; Eccles & Barber, 1999; Fleming et al., 2008). For example, Fleming et al. (2008) distributed a survey to collect data on 776 students from the end of elementary school to the beginning of high school to study the relationships between after school activities, misbehavior in school, and delinquency. While controlling for antisocial behavior, this study found that structured activities of juveniles did not correlate or have an effect on misbehavior in school or delinquency. However, similar to Osgood et al. (1996) and consistent with routine activity theory, they also found that there was an association between unstructured activities and delinquent behavior in the first year of high school.

A recent study by Miller (2013) took prior research of routine activities theory one step further by testing if there are specific activities of juveniles that result in certain crimes. Miller examined whether a diverse range in both structured and unstructured routine activities is associated with offending along with whether activities have crime-specific effects in a sample of 15 year olds. The study focused on a number of core routine activities, such as hanging around away from home, hanging around with friends locally, involvement in youth clubs and sports, nightlife, and cultural and consumer activities. Miller found that all of the core routine activities were associated with some type of offending, but effects varied by offense. For instance, nightlife activities were associated with assault and drug use; involvement in sports with assault; and hanging around with friends associated with a range of street crimes. Eccles and Barber (1999) also studied what types of extra-curricular activities mattered based on five categories: prosocial (church and volunteer activities), team sports, academic clubs, performing arts, and school involvement. They found that involvement in prosocial activities related to low rates of

engagement in risky behavior; whereas involvement in team sports related to high involvement in one specific risky behavior of drinking alcohol.

Research conducted by Vazsonyi, Pickering, Belliston, Hessing, & Junger in 2002 investigated the similarities and differences in routine activities across nations and their relationship to juvenile delinquency by using a sample of 7,000 juveniles from 15 to 19 years old in Hungary, the Netherlands, Switzerland, and the United States. Based on the questionnaire that was administered, common routine activities varied across countries with the majority of juveniles spending most of their time in solitary activities, followed by peer activities, then community/sports activities, and family activities. Findings indicated that the overall rates of deviance based on routine activities were similar for Swiss, American, and Dutch youth, but the rates of Hungarian youth were substantially lower than all other juveniles. Juveniles who spent more time with family were less likely to be delinquent, while juveniles who spent more time with friends or peers in unsupervised and unstructured activities were more likely to be delinquent. Overall, results showed that there is international support for routine activities theory due to variation in country had little to no effect on deviance with the exceptions of alcohol and drug use (Vazsonyi et al., 2002).

Current Study: Neighborhoods, Extra-Curricular Activities, and Crime

Involvement in extra-curricular activities may therefore be another factor that accounts for the relationship between social disorganization and crime. Swisher (2008) argued that the types of youth-oriented activities that are organized and positive in social and developmental aspects of life are more likely to be found in wealthier neighborhood structures that provide a better youth developmental outcome influencing juveniles to engage in non-delinquent actions towards others. Theoretically, there could be a link between juveniles participating in various

types of activities and the delinquent crime that occurs in different neighborhood structures. In particular, the theory of routine activities suggests that not only participation in activities could limit delinquency but activities that are structured and supervised by capable guardians as well. Poorly organized neighborhoods likely provide fewer opportunities for structured activities that youth can participate in, therefore impacting engagement in delinquency.

Some research has shown a link between neighborhood conditions and extra-curricular activities (Fauth, Roth, & Brooks-Gunn, 2007; Moriarty & Williams, 1996; Xue, Zimmerman, & Caldwell, 2007;). For instance, Fauth et al. (2007) examined how neighborhood context can effect extra-curricular activities and various youth outcomes, such as anxiety/depression, delinquency, and substance abuse. They used a sample of 1,315 that consisted of youth ranging in age of 9 years old to 12 years old from the Project on Human Development in Chicago Neighborhoods (PHDCN). They found that the socio-economic status of the neighborhood determined the resources available such as youth centers and recreation programs and caused these neighborhood-level dissimilarities to contribute to the relationship between participation in extra-curricular activities and youth outcomes. Limited neighborhood resources and participation in various extra-curricular activities allowed for unstructured, minimally-supervised activities which created opportunities for substance abuse. Also, different patterns of extra-curricular activity participation can have differential effects in which some of these effects were moderated by neighborhood characteristics.

Yet to be examined, however, is the extent to which involvement in extra-curricular activities may explain the relationship between neighborhood conditions and delinquency. This study therefore examined how the differences in neighborhood conditions with social disorganization can affect delinquent outcomes (delinquency and binge drinking) and how

participation in extra-curricular activities can affect the relationship. The first hypothesis is thus that more socially disorganized neighborhoods will be related to higher levels of delinquency and binge drinking. The second hypothesis is that participation in extra-curricular activities will mediate the relationship between social disorganization and delinquent outcomes (delinquency and binge drinking).

CHAPTER 3
METHODOLOGY
Data and Sample

This study used secondary data that is public from the National Household Survey on Drug Abuse (NHSDA) which is a repeated cross-sectional series of studies that first began in 1979. Each year the study has been repeated with a different random sample among various households across the United States with the same intended purpose of measuring and estimating drug use of participants of the household that are 12 and older. Questions from the NHSDA series intend to provide accurate statistics on the patterns or trends of both alcohol use and various licit and illicit drug types. The survey also attempts to identify those groups with a high risk of drug abuse and the consequences. The results of the NHSDA series provide national and state-level data and are used in numerous publications each year.

The National Household Survey on Drug Abuse that was conducted in 2000 is the most suitable dataset out of the entire series to use due to the variables that are being measured for this particular study. The procedure used to collect data for the 2000 study relied on audio computer-assisted self interviews (ACASI) and computer-assisted personal interviews (CAPI) completed by household members in 2000. The sample was drawn by a multistage area probability sample for each of the 50 states and the District of Columbia, comprising responses from 71,764 persons. However, for this study, the sample consisted of respondents from a specific youth experience section of the survey that was administered covering a variety of topics, such as neighborhood environment, gang involvement, illegal activities, extra-curricular activities, exposure to substance abuse prevention and education programs, and perceived adult attitudes

toward drug use and activities. The adolescent sample consisted of 12,800 juveniles ranging in age of 12 to 17 years old in the United States during the year of 2000.

Measurement

Dependent Variables

Dependent variables for this study included both delinquency and binge drinking.

Delinquency was based on a series of questions that ask how many times in the past 12 months had the juvenile participated in the following activities: sold illegal drugs; stolen or tried to steal something worth more than 50 dollars; a serious fight at school or at work; a fight where it was group versus group; carried a handgun; or attacked someone with the intent to seriously hurt them. The responses for each of these questions ranged from 1 (never) to 5 (10 or more times). Due to the skewed nature of the responses (very few engaged in any delinquency) responses were coded 1 if the participant engaged in any of the above activities and 0 if they did not engage in any.

Binge Drinking is based on a question that asked during the past 30 days, how many days had the participant have five or more drinks on the same occasion—the term “occasion” meaning at the same time or within a couple hours of each other. The responses for the question ranged from 0 (never) to 30 (everyday). In order to measure binge drinking, this study recoded the answers into two categories. If the participant had no occasion of consuming five or more drinks in the past 30 days, had never used alcohol, or did not use alcohol in the past 30 days, then these responses were coded as a zero (no occurrence). If the participant engaged in any number of days of binge drinking in the past 30 days, then these responses were coded as a one (any occurrence).

Results concerning binge drinking were based upon if any binge drinking occurred or did not occur in the past 30 days.

Independent Variables

One of the main independent variables in this study was *social disorganization*. Questions involving neighborhood conditions were based on how much the respondent agrees or disagrees with the following statements about their neighborhood: people often help each other; there are many empty/abandoned buildings; people often visit each other's homes; a lot of graffiti; and people moving in and moving out often. The responses for each of these questions were four choices ranging from strongly agree to strongly disagree. Reverse coding was used on these category values in order to simplify the interpretation of the relationship and ensure that the social disorganization variable was measured on a scale of the same agreement levels. In order to measure social disorganization, this study combined the responses from the scale in order to calculate the sum by adding together each item, with results that ranged from 5 to 20.

Another main independent variable in this study was involvement in *extra-curricular activities*. Involvement in extra-curricular activities was based on the question that asked whether or not adolescents were involved with the following activities in the past 12 months: youth center activities; Boy Scouts or Girl Scouts; private lessons such as piano, dance, tennis, karate, or horseback riding; team sports; 4-H Club; any school music groups; school-related clubs or committees; volunteer or community work; student government; job skills or training program; or a church choir. In order to measure participation in extra-curricular activities, this study created subcategories for each of the responses to be classified into. Subcategories were grouped based on the extra-curricular activity being considered academic, athletic, or social. Academic

activities included participation in school-related clubs or committees; any school music groups; and student government with results ranging from 0 to 3. Athletic activities included participation in youth center activities; private lessons such as piano, dance, tennis, karate, or horseback riding; and team sports with results that ranged from 0 to 3. Social activities included participation in Boy Scouts or Girl Scouts; 4-H club; volunteer or community work; job skills or training program; and church choir with results that ranged from 0 to 5.

Control Variables

This study contained several control variables. *Gender* was measured on the nominal level. *Race* was measured using the following categories: White, Black/African American, American Indian or Alaskan Native, Asian or Pacific Islander (Including Asian Indian), Hispanic, and Other. *Age* was an open-ended question in which the respondent responded with the age as of the last birthday. *Income* and social class of the parents were measured on the ordinal level including choices: \$0 to \$9,999; \$10,000 to \$19,999; \$20,000 to \$29,999; \$30,000 to \$39,999; \$40,000 to \$49,999; \$50,000 to \$74,999; and \$75,000 or more, thus resulting in a scale that ranged from 1 to 7.

Analytic Strategy

In SPSS, this study used logistic regression to test each hypothesis due to the dependent variables both being dichotomous. Although separate analyses were tested for delinquency and binge drinking outcomes, each result followed the same series of models. Model 1 tested if neighborhood social disorganization predicted levels of delinquency and binge drinking (hypothesis 1), net of controls. Model 2 examined if involvement in extra-curricular activities mediated the above relationship (hypothesis 2) after adding the extra-curricular activities

variables in the analyses. The same modeling procedure was used for both delinquency and binge drinking. Listwise deletion was used to address the number of cases with missing information.

CHAPTER 4

RESULTS

Background Literature

Previous research has shown that neighborhood characteristics and more specifically social disorganization can impact crime (Austin et al., 2004; Bursik & Grasmick, 1993; Kubrin & Weitzer, 2003). Social disorganization theory has received a substantial amount of support over the years, particularly with regard to the influence of neighborhood-level characteristics such as residential mobility, concentrated disadvantage, and racial heterogeneity (Pratt & Cullen, 2005). Research has also been conducted in an attempt to explain the mechanisms through which social disorganized neighborhoods affect crime including two primary explanations of informal social control and collective efficacy (Bellair, 1997; Morenoff et al., 2001).

Research has also shown that the types of daily activities that one participates in, such as extra-curricular activities, can affect the involvement in delinquency (Burton & Marshall, 2005; Fleming et al., 2008; Osgood et al., 1996). Moreover, Eccles and Barber (1999) found that types of extra-curricular activities based on various categories could be significant for involvement in delinquency. Their findings indicate that involvement in prosocial activities related to low rates of engagement in risky behavior; whereas involvement in team sports related to high involvement in one specific risky behavior of drinking alcohol. Yet to be examined, however, is the extent to which involvement in extra-curricular activities may explain the relationship between neighborhood conditions and delinquency.

The first hypothesis of this study is that more socially disorganized neighborhoods will be related to high levels of delinquency and binge drinking. The second hypothesis is that

participation in extra-curricular activities will mediate the relationship between social disorganization and delinquent outcomes (delinquency and binge drinking). This study uses logistic regression in SPSS to test each hypothesis. The first models test to see if there are relationships between social disorganization and both delinquent and binge drinking outcomes. The second model tests to see if the extra-curricular activity measures account for any differences in juvenile delinquency and binge drinking by adding academic activities, athletic activities, and social activities into the models.

Descriptive Statistics

Table 1 displays the means and frequencies of the data. The mean age of respondents in the sample is 14.6, in which the age question from this survey ranged from 12 to 17 years of age. A little less than half of the sample is female (49.5%), the majority of the sample is White (70.6%), and the mean total family income is 4.81. This number indicates that most respondents have a total family income ranging from \$30,000 to \$39,999.

The main independent variable is social disorganization. Table 1 reports that respondents in this study recorded a mean for social disorganization of 8.74 on a scale ranging from 5 to 20. This mean indicates that the sample shows a lower level of social disorganization and somewhat agreed that their neighborhood was socially organized. Focusing on extra-curricular activities, the independent variables expected to mediate the relationship between social disorganization and juvenile delinquency, the mean level of academic activities is 1.08, the mean level of athletic activities is 1.17, and the mean level of social activities is 1.00. The mean levels of academic and athletic activities are moderately low, based on scales that range from 0 to 3 for both variables. Adolescent involvement in social activities is also moderately low; however, this measure is

judged by a scale that ranges from 0 to 5. Interestingly, the means for extra-curricular activities indicate that, on average, adolescents are only involved in one type of activity within each domain (academic, athletic, and social). This is not surprising given that the different activities may be competing with one another in terms of time. Regarding the dependent variables, 27.8% of the respondents report being involved in any delinquency and 10.9% report any binge drinking within the past 30 days.

Table 1. *Descriptive Statistics* (n = 12,800)

Variable	Mean or Frequency	SD	Range or n
Delinquency	27.8	-----	3,557
Binge Drinking	10.9	-----	1,396
Social Disorganization	8.74	2.49	5.00 – 20.00
Academic Activities	1.08	0.95	0.00 – 3.00
Athletic Activities	1.17	0.90	0.00 – 3.00
Social Activities	1.00	1.00	0.00 – 5.00
Female	49.5	-----	6,330
White	70.6	-----	9,043
Black	11.8	-----	1,516
Hispanic	12.0	-----	1,539
Asian	2.8	-----	362
Other Race	2.7	-----	340
Age	14.6	1.67	12.00 – 17.00
Total Family Income	4.81	1.87	1.00 – 7.00

Multivariate Models

Delinquency

The relationship between social disorganization and delinquency is reported in Table 2. According to Model 1, results reveal that there is a significant relationship between levels of neighborhood social disorganization and delinquency in support of the first hypothesis. In

particular, a one unit increase in social disorganization is related to a 12.7% increase in odds of delinquency.

Table 2. *Logistic Regression of Social Disorganization on Delinquency, Mediation by Extra-Curricular Activities (n = 12,800)*

Variable	Model 1			Model 2		
	<i>b</i>	SE	Exp (<i>b</i>)	<i>b</i>	SE	Exp (<i>b</i>)
Social Disorganization	0.119***	0.008	1.127	0.117***	0.008	1.124
Age	-0.029*	0.012	0.972	-0.033**	0.012	0.968
Female	-0.669***	0.041	0.512	-0.610***	0.042	0.543
Black	0.225***	0.063	1.253	0.222***	0.063	1.249
Hispanic	0.055	0.063	1.057	0.037	0.063	1.038
Asian	-0.627***	0.143	0.534	-0.598***	0.143	0.550
Other Race	-0.183	0.130	0.833	-0.197	0.130	0.821
Total Family Income	-0.089***	0.011	0.915	-0.084***	0.012	0.919
Academic Activities				-0.180***	0.025	0.835
Athletic Activities				0.054**	0.026	1.055
Social Activities				-0.051***	0.022	1.052
Intercept	-0.891	0.200		-0.778	0.208	
Cox and Snell R^2	0.053			0.057		
-2 Log likelihood	1,4432.922			1,4381.095		

* $p < .05$. ** $p < .01$. *** $p < .001$.

Results also show that a one unit increase in age is associated with a 2.8% $[(1 - 0.972) \times 100 = 2.8]$ decrease in odds of delinquency. Females report having a 48.8% decrease in odds of being involved in delinquency compared to males. Compared to White adolescents, Black adolescents have a 25.3% increase odds in delinquency and Asian adolescents report having a decrease in odds of delinquency of 46.6%. Lastly, a one unit increase in total family income is related to an 8.5% decrease in odds of delinquency. Also of note, the Cox and Snell R^2 indicates that only 5.3% of the variance in delinquency is explained by the model.

The second model in Table 2 displays the results for the relationship between social disorganization and delinquency when accounting for extra-curricular activity factors (academic

activities, athletic activities, and social activities). In contrast to the expectations of the second hypothesis, results show that, while significant, extra-curricular activities fail to account for much of the effect of neighborhood social disorganization on delinquency. The coefficient for social disorganization remains significant and is only reduced by a meager 1.7% $\{[1 - (0.117/0.119)]*100\}$. However, an interesting pattern emerges when looking at the individual coefficients for extra-curricular activities. While all show a significant relation to delinquency, there are differences in the nature of the relationships. Increases in participation of academic and social activities are related to *decreases* in odds of delinquency, but increases in participation in athletic activities are associated with *increases* in odds of delinquency. Also of note, the Cox and Snell R^2 shows that only 5.7% of the variance in delinquency is explained by the model.

Binge Drinking

Table 3 represents the relationship between social disorganization and binge drinking outcomes. According to Model 1, results reveal that there is a significant relationship between levels of neighborhood social disorganization and binge drinking in support of the first hypothesis. More specifically, for every one unit increase in social disorganization, there is an association of 5.0% increase in odds of binge drinking.

Results also show that a one unit increase in age is associated with an 80.9% increase in odds of binge drinking. Females report having a decrease in odds of binge drinking by 19.5% compared to males. Also, compared to Whites, Black adolescents report having a decrease in odds of binge drinking of 71.7%, Hispanic adolescents have a decrease in odds of binge drinking of 22.4%, and Asian adolescents have a decrease in odds of binge drinking of 74.1%. Unlike

before, there are not any significant differences in odds of binge drinking in total family income. Also of note, the Cox and Snell R^2 indicates that only 8.0% of the variance in binge drinking is explained by the model.

Table 3. *Logistic Regression of Social Disorganization on Binge Drinking, Mediation by Extracurricular Activities (n = 12,800)*

Variable	Model 1			Model 2		
	<i>b</i>	SE	Exp (<i>b</i>)	<i>b</i>	SE	Exp (<i>b</i>)
Social Disorganization	0.049***	0.012	1.050	0.040**	0.012	1.041
Age	0.593***	0.022	1.809	0.586***	0.023	1.797
Female	-0.217***	0.060	0.805	-0.118	0.062	0.889
Black	-1.264***	0.134	0.283	-1.242***	0.135	0.289
Hispanic	-0.254**	0.096	0.776	-0.303**	0.096	0.738
Asian	-1.350***	0.270	0.259	-1.281***	0.270	0.278
Other Race	-0.118	0.181	0.889	-0.114	0.181	0.892
Total Family Income	0.001	0.017	1.001	0.023	0.018	1.023
Academic Activities				-0.217***	0.039	0.805
Athletic Activities				-0.054	0.038	0.947
Social Activities				-0.068	0.035	0.935
Intercept	-11.281	0.377		-10.921	0.386	
Cox and Snell R^2	0.080			0.085		
-2 Log likelihood	7,750.978			7,684.097		

* $p < .05$. ** $p < .01$. *** $p < .001$.

The second model in Table 3 illustrates the relationship between social disorganization and binge drinking when accounting for extra-curricular activities (academic, athletic, and social activities). In correspondence with the expectations of the second hypothesis, results show that there is minor support that some mediation from involvement in extracurricular activities is occurring in relation to the effect of social disorganization on binge drinking. The coefficient for social disorganization is reduced by 18.4% $\{[1 - (0.040/0.049)]*100\}$ and is now significant at a lower threshold. When looking at the individual coefficients for extra-curricular activities, relationships vary. Results show that participation in academic activities appears to have a

significant relation to binge drinking. In particular, results indicate that a one unit increase in participation in academic activities associates with a 19.5% decrease in odds of binge drinking. Unlike the previous models for delinquency, there are not any significant or even marginally significant differences in odds of engaging in binge drinking for adolescents participating in either athletic activities or social activities. Therefore, it appears that, of the extra-curricular activities, the slight mediation of the social disorganization and delinquency relationship is primarily limited to academic activities. Also of note, the Cox and Snell R^2 shows that only 8.5% of the variance in binge drinking is explained by the model.

Conclusions

Using the National Household Survey of Drug Abuse (NHSDA) to explore the relationship between social disorganization and delinquency by examining participation in extra-curricular activities it was hypothesized that more socially disorganized neighborhoods would be related to higher levels of delinquency and binge drinking. Results supported the first hypothesis. Participants who lived in a more socially disorganized neighborhood reported higher odds of engaging in any delinquency and any binge drinking. This research corresponded with previous research that found significant relationships between neighborhood characteristics and crime (Browning & Erickson, 2009; Porter & Vogel, 2014; Pratt & Cullen, 2005; Rountree & Land, 1996; Sampson & Groves, 1989).

The second hypothesis tested to see if any of the relationships between social disorganization and delinquency and binge drinking are accounted for by participation in various extra-curricular activities (academic, athletic, and social). Limited support for this hypothesis was found as there was little change in the coefficient for neighborhood disadvantage when

accounting for extra-curricular activity measures predicting binge drinking. When looking at binge drinking, some evidence of mediation was garnered, as the coefficient for social disorganization was substantially reduced and was significant at a lower threshold. The effect of social disorganization on delinquency, however, remained significant, meaning that other factors may also be important in explaining the relationship.

It is also worth noting an interesting finding concerning the models predicting delinquency—specific extra-curricular activities showed different patterns of relationships to delinquency. Participation in academic activities and social activities indicated that adolescents who engaged in these types of activities were *less likely* to be involved in delinquency. However, adolescents who participated in athletic activities also showed a significant impact but were *more likely* to be involved in delinquency. Concerning binge drinking, only participation in academic activities showed a significant relationship to binge drinking, as results showed that adolescents who took part in academic activities were less likely to engage in binge drinking.

It is important to explain that the models in the current study only explain a five percent and eight percent of variance for delinquency and binge drinking, respectively. The Cox and Snell R^2 variations are small explanations of variance, but this study is more concerned about testing to see if social disorganization factors are significant predictors of delinquency and why as opposed to attempting to completely explain delinquency. That being said, this study cannot cover all variables that can explain the outcomes of delinquency or binge drinking. Other theories perhaps that are not included in the study could help to more fully account for variance in delinquency, such as the social bond theory, rational choice theory, social learning theory, anomie/strain theory, deterrence theory, etc..

CHAPTER 5

DISCUSSION

Using data from the National Household Survey of Drug Use ($n = 12,800$), this research looked at the relationship between social disorganization and delinquent outcomes by examining the intervening role of extra-curricular activity factors including academic activities, athletic activities, and social activities. It was hypothesized that adolescents from more socially disorganized neighborhoods would report higher levels of involvement in delinquency and binge drinking. It was also hypothesized that that the relationship between social disorganization and delinquent outcomes (delinquency and binge drinking) would be accounted for by extra-curricular activity factors. Overall, this study found that there was a significant relationship between neighborhood social disorganization and delinquency, but this relationship was not well explained by youth involvement in extra-curricular activities.

Results supported the first hypothesis that socially disorganized neighborhoods would be significantly related to odds of delinquency and binge drinking. Participants from neighborhoods with lower levels of social disorganization were less likely to participate in delinquency and binge drinking compared to those from neighborhoods with higher levels of social disorganization. Findings from the study indicating that characteristics of socially disorganized neighborhoods relate to delinquency were consistent with prior studies (Bursik & Grasmick, 1993; Kubrin & Weitzer, 2003; Pratt & Cullen, 2005; Sampson & Groves, 1989). One distinction of this study compared to others is that a single social disorganization scale was used instead of separate items (Sampson & Groves, 1989). For example, Pratt and Cullen (2005), as well as numerous studies, found that residential mobility, concentrated disadvantage, and racial

heterogeneity were neighborhood factors found to impact crime (Porter & Vogel, 2014; Rountree & Land, 1996; Wang & Arnold, 2008). While a single scale was used, items tapping into residential mobility and concentrated disadvantage were included into the scale, as were additional items indicative of collective efficacy. Only items measuring racial heterogeneity were not available in the data.

A contribution of this study is that it broadened the scope of previous research on social disorganization theory by looking at binge drinking as a potential outcome. There were a limited amount of previous studies that had specifically looked at substance or alcohol abuse in relation to social disorganization, as most focused exclusively on violent and or non-violent forms of delinquency (Boggess & Hipp, 2010; Porter & Vogel, 2014; Sampson & Groves, 1989). The findings from this study suggest that future research should also consider a wider set of deviant outcomes than violent and non-violent behavior, such as substance use or perhaps other forms of risky behavior.

The second hypothesis predicted that the relationships between social disorganization and delinquency and binge drinking would be accounted for by extra-curricular activity factors. Only partial support for the second hypothesis was found due to extra-curricular activities failing to account for much of the effect on neighborhood social disorganization on delinquency; however, extra-curricular activities slightly mediated the effect of neighborhood social disorganization on binge drinking. Results for binge drinking indicated that the coefficient for the social disorganization measure reached statistical significance at a lower threshold and was reduced by 18.4% after the extra-curricular activity factors were incorporated into the models. Nonetheless, a significant effect of social disorganization on binge drinking remained. Perhaps other types of informal social control can better explain the relationship. For example, Kubrin and Weitzer

(2003) suggest new directions to help explain the link between social disorganization and crime including the following concepts: informal control, social ties, social capital, collective efficacy and even reconsidering cultural background characteristics as an explanation. Out of these, the two concepts that have been studied frequently are informal social control (Bellair, 1997; Sampson & Groves, 1989) and collective efficacy (Browning & Cagney, 2002; Morenoff et al., 2001). Future research should examine additional mechanisms through which social disorganization could relate to delinquency.

That the relationship between social disorganization and binge drinking is partially explained by extra-curricular activities but the relationship between social disorganization and delinquency is not is curious. One reason for explaining why there was some evidence of mediation for binge drinking but none for delinquency could be due to differences in the way in which the extra-curricular activity measures were related to the respective outcomes. For example, while only academic activities were significantly related to binge drinking, all three activities were negatively related to binge drinking, working in a consistent way to reduce the likelihood of that behavior. In contrast, some extra-curricular activities were positively related to delinquency and some were negatively related to delinquency. Thus, perhaps the conflicting positive and negative relationships offset each other, resulting in a minimal net effect of the extra-curricular activities on delinquency.

Indeed, the different patterns of relationships that was found among the various categories of extra-curricular activities and delinquent outcomes (delinquency and binge drinking) was an interesting finding that warrants further discussion. In particular, the finding that increased participation in athletic activities was related to increased involvement in delinquency corresponded with a previous study by Eccles and Barber (1999), which found that

involvement in team sports related to high involvement in one specific risky behavior of alcohol use and getting drunk. In addition, these results also were consistent with one of the prior studies by Miller (2013) that also found that involvement in sports was positively associated with assault and fare evasion. Moreover, Caruso (2011) found there is a positive association between sport participation and violent crime, even though the link was only weakly significant. One reason that participation in sports or athletic activities was found to be related to increased odds of delinquency could be that, generally, sports could be portrayed as involving a level of violence to the competition. This violent aspect to competition may show relation to violence outside of structured, guided competition. In essence, it could be indicative of a selection effect, where those who are more predisposed to aggressive, violent behavior are both more likely to be attracted to sports and more likely to engage in delinquent behavior. On the other hand, perhaps by participating in sports adolescents are being taught to be more aggressive and competitive, and this is translating into delinquent involvement. Future research should attempt to disentangle potential selection or socialization effects in the sport-delinquency relationship.

Limitations

There were a few limitations to this study. First, this data set was based on a survey method that was cross-sectional so it was administered at one point in time and was not followed up for additional questioning. If the survey had been longitudinal and there had been a follow up interview some time period later, then participation in extra-curricular activities as well as involvement in delinquent behavior may have been more certain that one specific variable caused the outcome. For instance, knowing that extra-curricular activity factors were for sure measured prior to delinquent offending, then this research would prove certainty of causation.

Second, the dataset used was dated as of 2000 and delinquency rates as well as participation in extra-curricular activities may vary from any data that is current. Unfortunately, prior research does not compare youth involvement in extra-curricular activities over time or the number of activities schools offer now compared to then. However, recent statistics show that nearly 6 out of 10 (57%) of children between ages 6 and 17 years old participate in at least one after-school extra-curricular activity (United States Census Bureau, 2014). With a good percentage of youth involved in extra-curricular activities as of to date, it would have been beneficial for the data used to be up to date and closer to the present year to reassure that the results of this study could be generalized to reflect the youth population today.

Third, the variable used to measure participation in extra-curricular activities was on a nominal, yes or no scale which limited the use of the data. Questions would have been more suitable if they asked how many times in the past 12 months had the respondent participated in the given activity in order to measure level of involvement. Research has been conducted to test extra-curricular activities based on duration or amount of participation (Mahoney, Cairns, & Farmer, 2003; Marsh & Kleitman, 2002; Zaff, Moore, Papillo, & Williams, 2003). For instance, Zaff et al. (2003) centered their study on three-level variables of consistent participation, occasional participation, and no participation and found variations in outcomes based on participation levels. Therefore, level of involvement in extra-curricular activities may be important than any involvement. In addition, questions from this dataset measured specifically the use of all types of drugs by the respondent and it would be interesting for future research to study the possibility that the use of certain kinds of drugs are more related to certain types of extra-curricular activities.

Fourth, the target population of the survey was defined as the noninstitutionalized civilian population of the United States; therefore, a small proportion (slightly less than 2 percent) of the population was excluded. Some of the subpopulations that were excluded from the survey were members of the active-duty military and those that were located in institutional group quarters such as hospitals, prisons, nursing homes, and treatment centers. Those who were in prison or in a juvenile detention center at the time of the survey were not included. It would be interesting to research their level of participation in extra-curricular activities prior to being detained or among a group of more serious offenders.

Policy Implications

In terms of policy implications, this study encourages participation in certain types of extra-curricular activities and programs for adolescents. The findings from this study show that when extra-curricular activity variables are employed in the models, odds suggesting towards delinquent outcomes by social disorganization factors vary. This research indicates that participation in athletic activities showed *increased* odds of involvement in delinquency; therefore, promoting youth to be involved in academic and/or social activities instead of athletic activities would *decrease* the odds of delinquency based on this study's findings. Furthermore, encouraging adolescents to participate in academic activities relates to decreased odds of binge drinking as well. One way would be to hold meetings for parents and children to attend in both the schools and communities that are geared towards encouraging children to become involved in structured, academic and social activities early on and throughout adolescence. Another way would be to have schools and communities to invest time and funding to promote non-violent, academic and social activities by using advertisement such as posters, billboards, flyers, etc.

Promoting youth to participate in certain types of extra-curricular activities, such as academic or social activities instead of athletic activities, will help to reduce delinquent outcomes.

REFERENCES

- Abdullah, A., Marzbali, M. H., Woolley, H., Bahauddin, A., & Maliki, N. Z. (2014). Testing for Individual Factors for the Fear of Crime Using a Multiple Indicator-Multiple Cause Model. *European Journal on Criminal Policy and Research*, 20(1), 1-22.
- Austin, D. M., Furr, L. A., & Spine, M. (2002). The effects of neighborhood conditions on perceptions of safety. *Journal of Criminal Justice*, 30(5), 417-427.
- Bellair, P. E. (1997). Social interaction and community crime: Examining the importance of neighbor networks. *Criminology*, 35(4), 677-704.
- Bogges, L. N., & Hipp, J. R. (2010). Violent crime, residential instability and mobility: does the relationship differ in minority neighborhoods?. *Journal of Quantitative Criminology*, 26(3), 351-370.
- Browning, C. R., & Cagney, K. A. (2002). Neighborhood structural disadvantage, collective efficacy, and self-rated physical health in an urban setting. *Journal of Health and Social Behavior*, 383-399.
- Browning, C. R., Dietz, R. D., & Feinberg, S. L. (2004). The paradox of social organization: Networks, collective efficacy, and violent crime in urban neighborhoods. *Social Forces*, 83(2), 503-534.
- Browning, S., & Erickson, P. (2009). Neighborhood disadvantage, alcohol use, and violent victimization. *Youth Violence and Juvenile Justice*, 7(4), 331-349.
- Bursik Jr, R. J., & Grasmick, H. G. (1993). Economic deprivation and neighborhood crime rates, 1960-1980. *Law & Soc'y Rev.*, 27, 263.
- Bursik Jr, R. J., & Webb, J. (1982). Community change and patterns of delinquency. *American Journal of Sociology*, 24-42.

- Burton, J. M., & Marshall, L. A. (2005). Protective factors for youth considered at risk of criminal behaviour: does participation in extracurricular activities help?. *Criminal Behaviour and Mental Health*, 15(1), 46-64.
- Cambridge University Press. (2015). *extracurricular*. Retrieved from Cambridge Dictionaries Online: <http://dictionary.cambridge.org/us/dictionary/american-english/extracurricular>
- Carson, D. C., & Esbensen, F. A. (2014). The mediating effects of delinquent attitudes on race, race heterogeneity, and violent offending. *Journal of Crime and Justice*, 37(1), 23-41.
- Caruso, R. (2011). Crime and sport participation: Evidence from Italian regions over the period 1997–2003. *The Journal of Socio-Economics*, 40(5), 455-463.
- Cary, J. M. (1992). Legal Issues Related to Extracurricular Activities. *School Law Bulletin*, 23(4), 15-23.
- Coakley, J. J., & Hughes, R. (1994). Deviance in sports: is it getting out of control?. *Sport in society: issues and controversies.*, (Ed. 5), 134-161.
- Cohen, L. E., & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American sociological review*, 588-608.
- Eccles, J. S., & Barber, B. L. (1999). Student council, volunteering, basketball, or marching band what kind of extracurricular involvement matters?. *Journal of adolescent research*, 14(1), 10-43.
- Elliott, D. S., Wilson, W. J., Huizinga, D., Sampson, R. J., Elliott, A., & Rankin, B. (1996). The effects of neighborhood disadvantage on adolescent development. *Journal of Research in Crime and Delinquency*, 33(4), 389-426.

- Ennett, S. T., Flewelling, R. L., Lindrooth, R. C., & Norton, E. C. (1997). School and neighborhood characteristics associated with school rates of alcohol, cigarette, and marijuana use. *Journal of Health and Social Behavior*, 55-71.
- Fauth, R. C., Roth, J. L., & Brooks-Gunn, J. (2007). Does the neighborhood context alter the link between youth's after-school time activities and developmental outcomes? A multilevel analysis. *Developmental psychology*, 43(3), 760.
- Fleming, C. B., Catalano, R. F., Mazza, J. J., Brown, E. C., Haggerty, K. P., & Harachi, T. W. (2008). After-School Activities, Misbehavior in School, and Delinquency From the End of Elementary School Through the Beginning of High School. *Journal of Early Adolescence*, 28(2), 277-303.
- Juvenile delinquency. (2015). In Merriam-Webster's online dictionary. Retrieved March 17, 2015, from <http://www.merriam-webster.com/dictionary/delinquency?show=1>
- Kling, J. R., Ludwig, J., & Katz, L. F. (2005). Neighborhood effects on crime for female and male youth: Evidence from a randomized housing voucher experiment. *The Quarterly Journal of Economics*, 87-130.
- Krivo, L. J., & Peterson, R. D. (1996). Extremely disadvantaged neighborhoods and urban crime. *Social forces*, 75(2), 619-648.
- Kubrin, C. E., & Weitzer, R. (2003). New directions in social disorganization theory. *Journal of research in crime and delinquency*, 40(4), 374-402.
- Landers, D. M., & Landers, D. M. (1978). Socialization via interscholastic athletics: Its effects on delinquency. *Sociology of Education*, 299-303.
- Lewis, D. A., & Maxfield, M. G. (1980). Fear in the neighborhoods: An investigation of the impact of crime. *Journal of Research in Crime and Delinquency*, 17(2), 160-189.

- Lilly, J. R., Cullen, F. T., & Ball, R. A. (2011). *Criminological Theory: Context and Consequences*. Thousand Oaks: SAGE Publications, Inc.
- Mahoney, J. L., Cairns, B. D., & Farmer, T. W. (2003). Promoting interpersonal competence and educational success through extracurricular activity participation. *Journal of educational psychology, 95*(2), 409-418.
- Markowitz, F. E., Bellair, P. E., Liska, A. E., & Liu, J. (2001). Extending social disorganization theory: modeling the relationships between cohesion, disorder, and fear*. *Criminology, 39*(2), 293-319.
- Marsh, H. W., & Kleitman, S. (2002). Extracurricular school activities: The good, the bad, and the nonlinear. *Harvard Educational Review, 72*(4), 464-515.
- Miller, J. (2013). Individual Offending, Routine Activities, and Activity Settings: Revisiting the Routine Activity Theory of General Deviance. *Journal of Research in Crime and Delinquency, 39*0-416.
- Morenoff, J. D., Sampson, R. J., & Raudenbush, S. W. (2001). Neighborhood inequality, collective efficacy, and the spatial dynamics of urban violence*. *Criminology, 39*(3), 517-558.
- Moriarty, L. J., & Williams, J. E. (1996). Examining the relationship between routine activities theory and social disorganization: An analysis of property crime victimization. *American Journal of Criminal Justice, 21*(1), 43-59.
- National Institute on Alcohol Abuse and Alcoholism. (2013, July). *College Drinking*. Retrieved from National Institute on Alcohol Abuse and Alcoholism:
<http://pubs.niaaa.nih.gov/publications/CollegeFactSheet/CollegeFactSheet.pdf>

- Osgood, D. W., Wilson, J. K., O'Malley, P. M., Bachman, J. G., & Johnston, L. D. (1996). Routine Activities and Individual Deviant Behavior. *American Sociological Review*, 61, 635-655.
- Pattillo, Mary E. 1998. "Sweet Mothers and Gangbangers: Managing Crime in a Black Middle-Class Neighborhood." *Social Forces* 76:747-74.
- Porter, L., & Vogel, M. (2014). Residential Mobility and Delinquency Revisited: Causation or Selection?. *Journal of Quantitative Criminology*, 30(2), 187-214.
- Pratt, T. C., & Cullen, F. T. (2005). Assessing macro-level predictors and theories of crime: A meta-analysis. *Crime and justice*, 373-450.
- Puzzanchera, C., Adams, B., & Sickmund, M. (2010). Juvenile court statistics 2006-2007. *National Juvenile Data Court Archive*.
- Puzzanchera, C., & Robson, C. (2014). Delinquency Cases in Juvenile Court, 2010. *U.S. Department of Justice*.
- Rountree, P. W., & Land, K. C. (1996). Burglary victimization, perceptions of crime risk, and routine activities: A multilevel analysis across Seattle neighborhoods and census tracts. *Journal of Research in Crime and Delinquency*, 33(2), 147-180.
- Sampson, R. J. (1985). Neighborhood and crime: The structural determinants of personal victimization. *Journal of Research in Crime and Delinquency*, 22(1), 7-40.
- Sampson, R. J., & Groves, W. B. (1989). Community structure and crime: Testing social-disorganization theory. *American journal of sociology*, 774-802.
- Sampson, R. J., & Raudenbush, S. W. (1999). Systematic social observation of public spaces: A new look at disorder in urban Neighborhoods 1. *American journal of sociology*, 105(3), 603-651.

- Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*, 277(5328), 918-924
- Scarborough, B. K., Like-Haislip, T. Z., Novak, K. J., Lucas, W. L., & Alarid, L. F. (2010). Assessing the relationship between individual characteristics, neighborhood context, and fear of crime. *Journal of Criminal Justice*, 38(4), 819-826.
- Shaw, C. R., & McKay, H. D. (1942). *Juvenile delinquency and urban areas: A study of rates of delinquents in relation to differential characteristics of local communities in American cities*. Chicago: University of Chicago Press.
- Siegel, L. J., & Welsh, B. C. (2011). *Juvenile Delinquency: Theory, Practice, and Law*. Belmont: Wadsworth Cengage Learning.
- Simons, R. L., Simons, L. G., Burt, C. H., Brody, G. H., & Cutrona, C. (2005). Collective Efficacy, Authoritative Parenting and Delinquency: A Longitudinal Test of a Model Integrating Community- and Family- Level Processes. *Criminology*, 43(4), 989-1029.
- Smith, D. A., & Jarjoura, G. R. (1989). Household characteristics, neighborhood composition and victimization risk. *Social Forces*, 68(2), 621-640.
- Statistical Briefing Book (2011). Law Enforcement and Juvenile Crime. Office of Juvenile Justice and Delinquency Prevention. Retrieved 30 March 2014. Available at: <http://www.ojjdp.gov/ojstatbb/>.
- Swisher, R. (2008). Neighborhoods and Youth: How Neighborhood Demographics and Social Processes Affect Youth Outcomes. *Prevention Researcher*, 15(2), 7-11.
- Taylor, R. B., & Covington, J. (1993). Community structural change and fear of crime. *Social Problems*, 374-397.

- Tuthill, L. C. (2012). Bringing in Gangs and Community: A Re-Evaluation of Social Disorganization and Collective Efficacy.
- United States Census Bureau. (2014). *Nearly 6 Out of 10 Children Participate in Extracurricular Activities*. Census Bureau.
- Vazsonyi, A. T., Pickering, L. E., Belliston, L. M., Hessing, D., & Junger, M. (2002). Routine Activities and Deviant Behaviors: American, Dutch, Hungarian, and Swiss Youth. *Journal of Quantitative Criminology*, 18(4), 397-422.
- Xue, Y., Zimmerman, M. A., & Caldwell, C. H. (2007). Neighborhood residence and cigarette smoking among urban youths: the protective role of prosocial activities. *American Journal of Public Health*, 97(10), 1865-1872.
- Wang, F., & Arnold, M. T. (2008). Localized income inequality, concentrated disadvantage and homicide. *Applied Geography*, 28(4), 259-270.
- Zaff, J. F., Moore, K. A., Papillo, A. R., & Williams, S. (2003). Implications of extracurricular activity participation during adolescence on positive outcomes. *Journal of Adolescent Research*, 18(6), 599-630.

VITA

ROBYN G. DOUGHERTY

Personal Data: Date of Birth: May 8, 1991
 Place of Birth: Nickelsville, Virginia
 Marital Status: Single

Education: Twin Springs High School, Nickelsville, Virginia
 B.S. Criminal Justice, The University of Virginia's College at
 Wise, Wise, Virginia 2013
 M.A. Criminal Justice & Criminology, East Tennessee State
 University, Johnson City, Tennessee 2015

Professional Experience: Graduate Assistantship, Financial Aid East Tennessee State
 University; Johnson City, Tennessee, 2013-2015

Honors and Awards: Who's Who Among American College Students
 Darden Society, The University of Virginia's College at Wise
 Outstanding Criminal Justice Student, The University of Virginia's
 College at Wise
 Magna Cum Laude, The University of Virginia's College at Wise.