

DESIRABLE PARENTING, DELINQUENT YOUTH? EXPLORING THE MODERATING EFFECT OF
DELINQUENT PEER ASSOCIATIONS ON THE PROTECTION OF AUTHORITATIVE PARENTING

By

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THESIS ABSTRACT

Desirable Parenting, Delinquent Youth? Exploring the Moderating Effect of Delinquent
Peer Associations on the Protection of Authoritative Parenting

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This study addresses the relationship between parenting style and delinquent peer association as it relates to youth delinquency. Research has generally agreed that authoritative parenting serves as a protective factor against delinquency, and that delinquent peer association serves as a risk factor across youth of various ages, ethnicities, and socioeconomic strata. The hypothesis of this study is that the risk factor of associating with delinquent peers overrides the protective factor of authoritative parenting on youth delinquency. This study uses longitudinal data from the National Youth Survey and employs logistic regression to explore the interaction between these two variables. Among the findings is the conclusion that, among youth aged 12 to 18, contemporaneous delinquent peer association overrides the protection of authoritative parenting. Implications include juvenile justice and parenting reform.

Introduction

The issue of addressing and preventing juvenile delinquency has sparked much interest and debate among researchers, policymakers, law enforcement, and parents alike. As the development of the United States' juvenile justice systems has wound through different theories and models of delinquency causation, there have been some persistent themes, one of which is the importance of the child's household environment. A major common risk factor for youth in relation to delinquency is a poor family environment and household structure. Often, if youth do not need to adhere to rules at home, they end up breaking rules in the community. If they do not feel their needs are met at home, they are likely to seek fulfillment from other, perhaps deviant, sources. This establishes that parents play a crucial role when it comes to delinquency, and that role can be either a risk or protective factor. It would figure, then, that youth who have parents who provide structure and fulfillment of emotional needs are at lower risk of delinquency.

Another common risk factor for delinquency is association with delinquent peers. It is well known that in adolescence, peer influence becomes especially influential (Costanzo and Shaw, 1966). I conjecture that this change in influential potential is to blame for the delinquency of my target population.

Baumrind (1971) discussed parenting style in her article about the relationship between parents and their preschool-aged children, which found that authoritative parenting was associated with child characteristics such as social responsibility and high achievement. I adopt Maccoby and Martin's (1983) description of the authoritative parenting model, which elaborated on Baumrind's foundation and is more widely cited

by academics today. The 1983 study defined “authoritative parenting” as that characterized by a balanced combination of “high responsiveness” and “high demandingness”¹. Authoritative parents place high importance on responding to their children’s physical and emotional needs. They also place demands on their children by instituting structure through house rules and expectations of consequences. ²This disciplining/nurturing parenting style has been shown to be a proposed and proven protective factor from youth delinquency (Piko and Balazs, 2012). Why, then, do some youth with authoritative parents under this protection still offend?

In this paper, I will explore the question of why juveniles from authoritative households become delinquent. My findings could serve to help academics and practitioners alike gain a deeper understanding of juvenile delinquency and construct stronger, more informed delinquency prevention and intervention methods.

¹ Other research has offered similar definitions of authoritative parenting (Beya and Cegala, 1992; Steinburg, 2001; Chen, Kawachi, Berkman, Trudel-Fitzgerald, and Kubzansky, 2019).

² The dataset upon which I base my conclusions also refers to this style of parenting as “inductive” (as opposed to “non-inductive”), however I will maintain the use of “authoritative”, as this is the term more frequently used today.

Literature Review

Research about familial and peer influences on delinquency tends to agree that there is a correlation among these variables, but dispute the extent and effect of each. The studies also tend to provide and explore evidence of other mediating or moderating factors, which paints a fuller picture of the issue, but further blurs the lines as to explaining the exact influences and limitations of each variable. Nevertheless, there remains wide consensus that parenting styles and peer delinquency significantly affect youth delinquency.

Authoritative Parenting as a Protection Against Delinquency

The bulk of literature on authoritative parenting in social work and juvenile justice and its relation to child delinquency proposes that the style is an effective protective factor. Even if youth whose parents were authoritative ended up offending, acts of delinquency were significantly less serious than those committed by youth whose parents were not (Hoeve et al., 2008). Further, Simons, Simons, Burt, Brody, and Cutrona (2005) found that, especially combined with collective efficacy, authoritative parenting served to protect youth from offending in the first place. In their longitudinal study, the authoritative style was arguably effective on its own, and the combination with collective efficacy simply catalyzed the effect.

On the other hand, youth whose parents did not display authoritative characteristics have been found to be more likely to engage in specific delinquent acts, such as running away (Holliday et al., 2017). Although running away itself is not universally treated as a delinquent act, this article also notes that running away tends to

be a gateway to more deviant, and perhaps delinquent, behavior, supporting the notion that having non-authoritative parents is a risk factor for delinquency. Lippold, Hussong, Fosco, and Ram (2018) discovered these same findings when it came to authoritative characteristics and illicit substance use. When parents were less predictably warm or hospitable (common authoritative qualities), youth were more likely to use drugs and engage in other risky, deviant behavior.

Interestingly, research has also shown that the effect of authoritative parenting applies to both adolescent males and females. Hoeve, Dubas, Gerris, Laan, and Smeenk (2011) identify two other parenting styles- authoritarian (minimally supportive and highly controlling) and permissive (minimally controlling and highly supportive) in their research. They compared them to authoritative (highly supportive and controlling) parenting, and found that this style was the most effective in protecting both male and female children from delinquency. However, whereas the negative effect of a lack of authoritative parenting on female delinquency dwindled with time, the negative effect on males was sustained from adolescence into adulthood. The research showed that children from families where both parents are authoritative are least likely to become delinquent. This study also showed that when one parent was authoritative, it tended to serve as a mediator for the negative effects of the other parent's authoritarian or permissive style, supporting the strength of the impact of this parenting style on the risk of delinquency.

While most research centers white or otherwise Eurocentric experiences (Hart, O'Toole, Price-Sharps, and Shaffer, 2007; Simons and Conger, 2007; Caputo, 2005), Pittman and Chase-Lansdale's (2001) study focused on African American girls from

impoverished neighborhoods. Their research showed that the most important parental factor when it came to delinquency prevention was engagement. Girls whose parents were engaged both emotionally and in terms of discipline and supervision were the least likely to engage in delinquent behavior. Supervision and emotional engagement are central to the authoritative parenting style. This research suggests that authoritative parenting has protective qualities across gender, race, and socioeconomic status.

Research by Merianos, King, Vidourek, and Nabors (2015) utilizing a sample of Hispanic youth reached similar conclusions. This study found that Hispanic male and female youth aged 14 to 17 whose parents were highly authoritative were less likely to engage in underage drinking and other related deviant behaviors. In fact, the odds of recent alcohol use and binge drinking, for those whose parents ranked lower on the study's authoritative scale, increased by more than half, compared to participants with parents who ranked higher on the scale.

Guerrero, Dudovitz, Chung, Dosanjh, and Wong (2016) also found results that support the efficacy of authoritative parenting as a protection against delinquency among Latino adolescents. In their research studying the concept of "grit", which they define as "working strenuously toward challenges, maintaining effort and interest over years despite failure, adversity, and plateaus in progress," (p. 276) they find that grit is a protective factor against juvenile delinquency. Further, they find that a factor associated with more grit is having authoritative parents.

In a 2016 study looking at parenting style and juvenile delinquency, Pezzella, Thornberry, and Smith found the authoritative parenting style remained protective across

race and class. This study used life-course data from the Rochester Youth Development Study, and overrepresented females in order to better control for gender. They found authoritative parenting was significantly and negatively associated with delinquency in both White and African American high schoolers of different socioeconomic strata.

Evidence clearly shows that authoritative parenting serves as a protection against diverse behaviors, from running away and drug use to more serious and violent acts of delinquency. Even when youth with authoritative parents engage in delinquent behavior, research shows that this behavior is not as serious as that of children without authoritative parents. This holds true for both male and female youth, and across ethnicities and cultures.

While most research finds that authoritative parenting is an effective protective factor against youth delinquency, there is also evidence that this is not always the case. At least one study found that authoritative parenting was not significant in preventing delinquency among African American males. (Evans, Simmons & Simmons, 2016). Further, too much parent involvement in, or regulation of, a youth's social life could actually create a "forbidden fruit" effect and *increase* an adolescent male's chances of associating with deviant peers and becoming delinquent himself (Keijsers et al., 2012). Their research supports parental regulation of peers, but proposes that this regulation actually becomes a risk in adolescence. They suggest that this might be due to the maturity gap that several adolescents experience at this age: they are physically maturing into adults, but are still treated as children and barred from making independent

decisions. Because they feel boxed-in by society, they become antisocial as an escape, as a show of autonomy and rebellion.

The convergence of research in the area shows that peer influence has the power to overtake the protective effects of authoritative parenting. If true, this would provide some explanation as to why youth from authoritative households sometimes still engage in delinquent behavior.

Delinquent Peer Associations as a Risk Factor for Delinquency

Costanzo and Shaw's (1966) research broke significant ground in the area of peer influence on adolescent youth. Focusing on how often participants trusted and followed the response of their peers over their own answers, their study consisted of 96 males and females, ages 7 to 21. Their findings produced an inverted U-shaped function of conformity, which demonstrated that adolescents were significantly more likely to conform to peer behavior and expectations than were younger children or adults. This proven function, coupled with Princeton and Wang's (2005) findings that adolescents tend to overestimate their peers' levels of delinquency, supports the notion that delinquent peer associations (even perceived ones) significantly influence youth delinquency. As teenagers seek to fit in and garner favor with their peers, they may mirror the peers' perceived deviant behaviors and attitudes.

Further, Warr (1993a) found that association with delinquent peers has a major influence on delinquency, regardless of the association's duration. This is significant because it implies that whereas most adolescent friendships naturally tended to wane over

time, associations with delinquent peers, whom Warr described as “sticky,” tended to endure, as did their antisocial influences.

In a 2012 study, Bernat, Oakes, Pettingell, and Resnick controlled for demographic factors and found that a low level of peer delinquency has direct protective effect on juvenile delinquency. This research team used data from the National Longitudinal Study of Adolescent Health. Association with delinquent peers proved to be a significant predictor for violence involvement in adolescence and young adulthood. Respondents who reported low levels of peer delinquency were less likely to report involvement in deviant behavior themselves.

Just as parenting style had an effect on both female and male youth in terms of delinquency, Weerman and Hoeve (2012) found that delinquent peer associations significantly influenced both male and female youth. The only difference between the two populations was the type of delinquency in which they engaged - male crimes were more violent. This research also found that the correlation was stronger the more youth spent time with delinquent peers, providing more evidence for the temporal aspect of this variable.

The research on peer associations consistently shows that they play a significant role in delinquency. The research therefore provides support for my hypothesis that delinquent peer associations play an important role in an individual’s delinquent behavior.

The Relationship between Parenting and Peers on Delinquency

Authoritative parenting is not a guaranteed safeguard against delinquency, as previous investigations have found that youth from these households sometimes still offend (Hoeve, Dubas, Gerris, Laan, & Smeenk, 2011). Research has found that parental influences peak in late childhood/early adolescence and then recede tremendously in the presence of peer influences (Walters, 2018). Tompsett, Veits, and Amrhein (2016) even challenged Simons et al.'s (2005) findings on collective efficacy, showing that this variable serves as a protective factor only from neighborhood delinquent associations. Association with deviant peers outside the realm of the neighborhood and collective efficacy circle still remained a significant risk factor for a youth's own delinquent behavior- one that often outweighed these protections.

Other research reveals additional dimensions of authoritative parenting. Warr (1993b) found that parental involvement remains a protective factor the more time parents spent with their children. In this case, parental involvement was negatively correlated to youth delinquency: the more time parents spent with children, the less likely was delinquency. Parents spending time with their children tended to both prevent opportunities for negative peer associations and provide a model of prosocial behavior. Both of these factors led to less juvenile delinquency. Warr (1993b) also studied parental attachment and its relationship to delinquency and found that although it did not have a direct effect, it did encourage youth to associate with more prosocial peers and thus still indirectly prevented deviance.

It is not only the presence of delinquent peers that leads to delinquency. Haynie and Osgood (2005) maintain that "opportunity" is a third and critical factor when it

comes to linking youth and peer deviance. They found that youth tend to engage in delinquent behavior when they have a great number of delinquent peers, *and* the opportunity to engage in this behavior. This implies that a protection against delinquency would be to limit a child's availability to spend time with delinquent peers, and to preemptively block any opportunity for delinquent behavior. This supports Warr's (1993b) research implications about parents spending more time with their kids as a protection against delinquent peer associations and delinquent engagement.

Walters (2020b) found that prior parental support buffered against the delinquency-promoting effects of delinquent peer association in early adolescent youth. Using data from the longitudinal section of the Gang Resistance Education Training study, Walters developed a path analysis to study these variables. He confirmed that the effects of supportive parenting (which he defined similarly to this paper's "authoritative parenting") precede the effects of delinquent associations, and that the former can endure to protect against the latter and its negative implications.

The current study explores whether association with delinquent peers actually diminishes the effect of authoritative parenting. My first hypothesis is that parenting style loses significance in its protective effects against juvenile delinquency, in the presence of delinquent peer association. In other words, the risk factor of associating with delinquent peers outweighs the protective factor of living with authoritative parents. My second hypothesis is that this relationship is one of moderation, that the risk of delinquent peer association moderates the protection of authoritative parenting. I predict that the interaction between delinquent peer association and parenting style significantly and

negatively affects the risk of juvenile delinquency. In other words, the effect of authoritative parenting will differ for youth who have delinquent peer associations from those who do not. My analysis, then, will test the null hypothesis that having delinquent peers has no effect on the likelihood of juvenile delinquency among youth with authoritative parents.

Methods

Dataset

I analyze data from the first two waves of the long-running National Youth Survey (NYS), which were conducted in 1976 and 1977, respectively. The survey was sponsored by the National Institute of Mental Health and led by Delbert Elliott of the University of Colorado at Boulder's Institute of Behavioral Science and Institute for Behavioral Genetics. The institutes trained researchers to administer the NYS in a uniform fashion, conducting 90-minute long interviews. Elliott's team disseminated the survey to a nationally representative sample of youth in all 50 states and the District of Columbia. The first wave contains responses from 1,725 youth and parents, while the subsequent waves track only youth. Survey topics include attitudes, beliefs, and values surrounding prosocial and delinquent behavior, as well as issues such as potential home-life challenges, neighborhood problems, and challenges in school. The NYS also addresses respondent victimization, teen pregnancy, substance abuse, mental health, dating violence, sexual activity, school grades, relationship with adults, and community involvement. Data were also collected on respondents' demographic characteristics and socioeconomic status.

Policymakers, scholars, and researchers continue to cite the NYS in current empirical studies. Despite the fact that the data date from an earlier period, I believe this data set is appropriate for my research because it addresses delinquency, peer relationships, parental relationships, and the influences of both on youth thought and behavior. It also contributes to generalizability, as researchers have collected data from

this survey over an extended period of time and from a nationally representative sample of youth. I use data on parenting and delinquent associations from Wave I, when all participants were aged 11 to 17, to examine their relationship to delinquency at Wave II, when participants were aged 12 to 18.

Sample

The NYS utilized a nationally representative sample of male (53%) and female (47%) youth. About 25% of the participants reported living in an urban area, 44% in a suburban area, and 29% in a rural area. Fifty-three percent of the youth were male, and the majority (79%) identified as White, with 15% Black, 4% Hispanic, 0.5% Native American, 1% Asian, and 0.3% “Other”. The youth respondents’ ages were distributed relatively evenly across the sample from 11-17 in Wave I, and 12-18 in Wave II. The majority of their grades in school fell between Bs and Cs.

Wave I is unique, as it also includes 1,725 parent responses, although significantly more mothers than fathers took part (92% versus 7%). The parent ethnicities tend to fall in line with those of the youth. The majority of parents (81%) were married, and were in their 30s or 40s. Sixty-six percent of the parent respondents had at least graduated high school or earned a GED. In terms of employment, parents were mostly either employed (48%) or housewives (45%). Family income, as reported by parent respondents, was for the most part (85%) distributed relatively evenly between “\$6,000 or less” and “\$22, 001- 26,000³”. Eighteen percent reported receiving public financial

³ “\$27,800 or less” and “\$101,930-120,460” in 2020 dollars

assistance. Seventy-three percent of fathers, and 93% of mothers were reported to be living with the respondent youth.

Demographic Variables

In my analysis of the data, I included six demographic measures as control variables: sex, age, ethnicity, place of residence, parent marital status, and family income. I have chosen to use these variables because they are not only descriptive of my demographic, but they are also often highlighted in their relationship to youth delinquency in the body of research.

Sex and Age

I maintained the coding for sex utilized by the NYS (1 = male, 2 = female). The ages of the respondents at Wave II, measured in years, ranged from 12 years of age to 18 years of age, and all 1,725 youth participants responded to this question as well.

Ethnicity

The dataset coded “Ethnicity” into six categories: “Anglo”, “Black”, “Chicano”, “American Indian”, “Asian”, and “Other.” As 94% of respondents identified as one of the first two groups, I condensed the variable into three categories: “Anglo”, “Black”, and “Other”. Also, I renamed “Anglo” as “White” to use a more contemporary term (1 = White, 2 = Black, 3 = Other).

Place of Residence

This variable is broken down into “Urban”, “Suburban”, and “Rural”. I chose to maintain those categories, as the responses were substantially distributed across all three. I coded “Urban” as “1”, “Suburban” as “2”, and “Rural” as “3”.

Parent Marital Status

As previously mentioned, NYS researchers only collected this data at Wave I. This variable’s categories include “Single”, “Married”, “Divorced”, “Separated”, and “Other” (1 = Single, 2 = Married, 3 = Divorced, 4 = Separated, 5 = Other). The last group remains nebulous. “Other” could refer to a domestic partnership, a relationship in which the parent is dating, but not married, or any other non-traditional marital status. The NYS data does not specify what relationships were categorized as “Other”.

Family Income

This data comes from the Wave I parent responses. The survey breaks this variable into ten income brackets (1 = \$6,000 or less, 2 = \$6,001-10,000, 3 = \$10,001-14,000, 4 = \$14,001-18,000, 5 = \$18,001-22,000, 6 = \$22,001-\$26,000, 7 = \$26,001-30,000, 8 = \$30,001-34,000, 9 = \$34,001-38,000, and 10= \$38,001 or more). These values represent 1976 dollars, reflecting the time in which they were collected. Today, those brackets would be about \$27, 800 or less, \$27,805- 46,330, \$45,335- 64,865, \$64,868-83,395, \$83,400-101,925, \$101,930-120,460, \$120,465-138,990, \$138,995-157,525, \$157,530-167,055, and \$176,060, respectively.

Independent and Dependent Variables Coding

For this study, parenting style and delinquent peer association are the independent variables, and youth delinquency is the dependent variable. I tested for moderation effects of delinquent peer association on the effect of authoritative parenting.

Parenting Style

Wave I of the survey contains a section asking parents about their own parenting styles. In this section, the survey asks the parent respondent “How do you react when [youth respondent] does something wrong?” and then provides three sets of responses. The parent respondent must choose one from each that best reflects his or her hypothetical response. The answer options are scored as authoritative or non-authoritative. This one question was posed to parents three times, each with four different answer choices.

For example, one question asks “In general, how do you react when [youth respondent] does something wrong?” and instructs the parent respondent, “Please select the one action you would take first in disciplining [youth respondent].” The answer options are a) “Hit or threaten to hit him/her”, b) “Explain that he/she should accept responsibility for his/her behavior and request that he/she make up for it”, c) “Discuss his/her behavior with him/her as well as my reasons for being upset”, d) “Send him/her to his/her room”. Answers “a” and “d” were coded as “non-authoritative”, while “b” and “c” were coded as authoritative.

The final measure in this section combines the scores on the three questions to create a cumulative score. Parents were then categorized non-authoritative, semi-authoritative (scores from the previous sections indicated both authoritative and non-

authoritative parenting decisions), or authoritative. I then created a bivariate variable, where 0 = non-authoritative, and 1 = authoritative. I merged “semi-authoritative” into “authoritative” because prior research has shown that in the presence of both authoritative and non-authoritative parenting styles, the presence of any authoritative parenting still serves as a protective factor against youth delinquency.

Delinquent Peer Association

Both waves of the NYS have corresponding sections that ask youth respondents to answer questions about their friends. I focused on three of these variables, which ask about serious peer delinquency- how many of their peers in the past year had: a) broken into a vehicle or building; b) sold “hard” drugs; and c) stolen something worth more than \$50 (equivalent to about \$215 in 2020 currency). The answer options range from 1 (none of them) to 5 (all of them). To code delinquent peer association, I combined these three variables into one bivariate variable and focused not on how many delinquent peers the respondents have, but whether they have them at all (0= no, 1= yes).

Youth Delinquency

In another section of both waves, the survey asks youth respondents about their own involvement in delinquency. I focused on the five variables that ask how many times in the past year the respondent had engaged in more serious forms of delinquency: a) stolen a vehicle; b) stolen something worth more than \$50 (\$215 in 2020 terms); c) sold “hard” drugs; d) committed sexual assault; or e) broken into a building or vehicle. Each answer option ranges from 1 (never) to 9 (2-3 times per day). As with my “delinquent peers” variable, I combined these self-reported youth delinquency measures into one

bivariate variable to reflect not the severity of engagement, but whether the respondents had engaged in delinquency or not (0=no, 1=yes). Though I looked at this for both waves, I focused mainly on self-reported delinquency at Wave II, with delinquency at Wave I serving as an independent variable in some analyses.

Analysis

I utilized the Statistical Package for the Social Sciences (SPSS) for my data analysis. I first conducted a preliminary investigation with the dataset, running descriptive statistics for demographic information, and frequency distributions for the variables on which I am focusing. I also looked at the bivariate relationships with crosstabs and *t*-tests, to get a better understanding of the individual independent-dependent variable relationships.

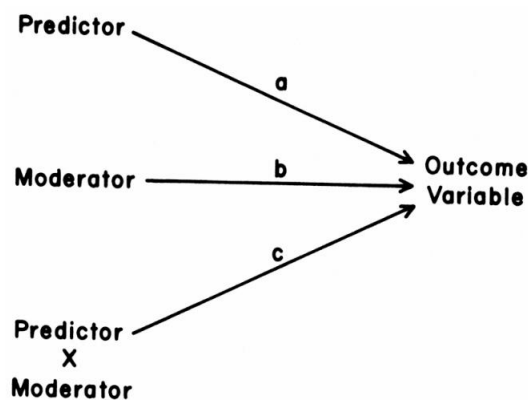
To test my null hypothesis, I used the whole sample and conducted several regressions with these variables. In my initial investigation, I found that the distribution of delinquency departed from the assumption of normality required for linear regression. An ordinary least squares regression also would not work because my dependent variable is dichotomous. For these reasons, I employed logistic regression. This tool allowed me to examine the relationships between my research variables, and gave me an idea as to which ones were most influential.

To go beyond establishing significance within my variables, I wanted to address how these variables interact with one another. Regarding youth delinquency, my hypothesis assumes that the effect of authoritative parenting depends on the presence and effect of delinquent peers: that is, association with delinquent peers moderates the effect

of authoritative parenting on delinquency, meaning that the presence of delinquent peers modifies the effect of authoritative parenting. According to my hypothesis, the effect of authoritative parenting on the risk of delinquency will differ depending on whether a youth has delinquent friends. Figure 1 shows a path diagram from Baron and Kenny's (1986) article on mediation versus moderation variables, and illustrates the potential role that the moderator plays among my research variables (p. 1174). If significant, the effect of X on Y will vary in the presence of the moderator. The moderator component of my hypothesis is supported if this interaction is significant.

Figure 1

Moderator Model



Predictor "a" = Authoritative Parenting

Moderator "b" = Delinquent Peer Associations

Outcome Variable = Youth Delinquency

To test this, I included an interaction term (authoritative parenting by delinquent peers) in the model and introduced it stepwise. Based on whether the interaction effect “c” is significant, this would reveal whether “b” affects the effect of “a” on the outcome variable.

Results

Bivariate relationships

Table 1 shows the bivariate relationships between delinquency at Waves I and II and the demographic and independent variables utilized, based on chi-square analyses for categorical variables or *t*-tests for interval level variables. In both Waves I and II, males were significantly more likely than females to report having engaged in delinquency. At Wave I, males were three times more likely to have committed delinquent acts (10.5% versus 3.5%, $p = .000$), while at Wave II, they were more than five times more likely (9.6% versus 1.8%, $p = .000$).

Although White youth (6.3%) were more likely to have committed delinquency than Black youth (4.5%) or youth of other races (4.1%) in Wave II, the differences were not statistically significant. Youth in urban settings reported higher rates of delinquency than suburban and rural youth. This was also not significant at Wave II. At Wave II (and Wave I), delinquent youth were significantly older than non-delinquent youth. Rates of delinquency differed significantly across family income brackets only at Wave I, with those who self-reported delinquent involvement reporting higher family income on average than those who did not engage in delinquency.

In terms of parent marital status, there were large and statistically significant differences in delinquency rates between children of married parents and those whose parents were single, divorced, or separated at Wave I. Children whose parents were single were nearly three times more likely to report involvement in delinquency than children whose parents were married. By Wave II, however, marital status was not

significantly associated with delinquency but it should be noted that self-reported delinquency at Wave II was highest among youth of divorced parents (9.8%).

Parenting Style was not significantly associated with delinquency at Wave I, but was significantly associated with Wave II self-reported delinquency ($p=.048$), with 9% of youth with non-authoritative parents reporting delinquent engagement, as opposed to 5.4% of youth with authoritative parents. Delinquent peer association at Waves I and II had significant effects on self-reported delinquency at both Wave I and Wave II (both at $p = .000$). Just over three percent (3.2) of youth who reported no delinquent peer association at Wave I reported delinquent engagement at Wave II, as opposed to 20.6% of youth who reported delinquent peer associations at Wave I reporting delinquency engagement at Wave II. Similarly, 2.1% of youth who reported no peer delinquency at Wave II reported engaging in delinquent behavior at Wave II, while 23.2% of youth who reported delinquent peer associations at Wave II also reported their own delinquency at Wave I. This magnitude of the difference in delinquency rates based on delinquent peer associations is important in displaying the risk factor of associating with delinquent peers.

Table 1*Bivariate Relationships*

	Total (N= 1,725)	Delinquency Wave I		P	Delinquency Wave II		p
		Yes (n = 124)	No (n = 1,601)		Yes (n = 198)	No (n = 1,551)	
Sex				0.000			0.000
Male	53.2%	10.5%	89.5%		9.6%	90.4%	
Female	46.8%	3.5%	96.5%		1.8%	98.2%	
Ethnicity				NS			NS
White	78.9%	6.5%	93.5%		6.3%	93.7%	
Black	15.1%	9.6%	90.4%		4.5%	95.5%	
Other	6.0%	10.6%	89.4%		4.1%	95.9%	
Residence				0.039			NS
Urban	24.5%	9.2%	90.8%		7.9%	92.1%	
Suburban	42.3%	7.4%	92.6%		5.8%	94.2%	
Rural	29.1%	5.0%	95.0%		4.5%	95.5%	
Mean Age	Wave I = 13.9 (1.9) Wave II = 14.9 (1.9)	14.2 (1.9)	13.9 (1.9)	0.041	15.3 (1.8)	14.8 (1.9)	0.041
Mean Family Income	4.16 (2.3)	4.2 (2.3)	3.8 (2.3)	0.045	4.2 (2.3)	4.2 (2.4)	NS
Parent Marital Status				0.002			NS
Single	1.0%	17.6%	82.4%		5.9%	94.1%	
Married	79.1%	6.1%	93.9%		5.8%	94.2%	
Divorced	7.8%	14.1%	85.9%		9.8%	90.2%	
Separated	4.6%	11.4%	88.6%		4.1%	95.9%	
Other	5.0%	6.9%	93.1%		2.4%	97.6%	
Parenting Style				NS			0.048
Non-Authoritative	11.8%	7.4%	92.6%		9.0%	91.0%	
Authoritative	85.6%	7.1%	92.9%		5.4%	94.6%	

	Total (N= 1,725)	Delinquency Wave I		<i>P</i>	Delinquency Wave II		<i>p</i>
		Yes (n = 124)	No (n = 1,601)		Yes (n = 198)	No (n = 1,551)	
Delinquent Peer Association Wave I				0.000			0.000
No	70.7%	2.9%	97.1%		3.2%	96.8%	
Yes	15.2%	26.2%	73.8%		20.6%	79.4%	
Delinquent Peer Association Wave II				0.000			0.000
No	71.7%	4.3%	95.7%		2.1%	97.9%	
Yes	15.0%	18.9%	81.1%		23.2%	76.8%	

Note. Numbers in parenthesis are standard deviations

Multivariate analyses

Regression #1

In the first logistic regression, youth self-reported delinquency at Wave II was the dependent variable. Independent variables in the model included the demographics: sex, ethnicity, age, place of residence, parent marital status, and family income. While marital status and income were measured at Wave I, the measures for sex, age, and place of residence were based on Wave II data. Ethnicity, place of residence, and parent marital status were treated as categorical variables. For ethnicity, “White” was selected as the comparison category, as it had the largest *n* of all the categories within this variable. The comparison group for place of residence was “Urban”. “Single” was the comparison category for parent marital status. None of the categorical variables nor their individual categories proved significant at the final steps of my regression models. Therefore Tables 2-4 list only the coefficients for the variables themselves.

In this first regression model, I also included both independent variables- parenting style and Wave I self-reported delinquent peer association. Lastly, I included the interaction variable- parenting style by Wave I self-reported delinquent peer association. The output of this model is reflected in Table 2. Sex was the only demographic variable that was a significant predictor of delinquency ($p = .000$). Both parenting style ($p=.029$) and Wave I delinquent peer association ($p = .003$) were significant predictors of self-reported delinquency. The interaction term, however, was not statistically significant.

Table 2*Wave II Delinquency by Parenting Style and Wave I Delinquent Peers*

Variable	B	S.E.	Exp(B)
Sex	-1.395***	0.316	0.248
Ethnicity	-0.396	0.250	0.673
Age	0.040	0.067	1.040
Place of Residence	-0.302	0.166	0.739
Parent Marital Status	-0.185	0.180	0.831
Family Income	-0.006	0.057	0.917
Parenting Style	-0.927*	0.424	0.396
Wave I Delinquent Peer Association	1.637**	0.546	5.142
Parenting Style* Wave I Delinquent Peer Association	0.398	0.606	1.488

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

Hosmer and Lemeshow Test:

Chi-Square	df	Sig
4.444	8	0.815

Nagelkerke R Square .259

The odds that females engage in delinquency are 75.2% lower than males, controlling for the other variables in the model. Also, for every additional year of age, the odds ratio of participants reporting engagement in delinquency increases 1.04 times. When all variables were accounted for, these were the only two demographic variables that were significant predictors. This implies that, when all these variables are considered together, ethnicity does not predict self-reported delinquency. Neither does place of residence, a parent's marital status, or the family's income.

As assumed, the authoritative parenting style served as a protective factor. The odds that youth with authoritative parents engage in in delinquent behavior are 60.4% lower than youth with non-authoritative parents. On the other hand, as predicted, delinquent peer association proved to be a risk factor. The odds that youth who reported having delinquent peers at Wave I were engaged in self-reported delinquency at Wave II were 5.142 times greater than for youth who reported having no delinquent peers at Wave I.

Contrary to my hypothesis, parenting style remained a protective factor in the presence of delinquent peer association. Although the effect of the delinquent peer association variable was larger than the effect of the parenting style variable, the former did not render the latter insignificant. In addition, the model did not provide evidence of a moderator effect: the interaction term was not a significant predictor of delinquency.

Regression #2

The next regression model included the same variables but employed a stepwise approach. The final step produced the same output as in Table 2, so I will be referring to that table to illustrate the final output of this regression as well.

Step 1 included sex, ethnicity, age, place of residence, parent marital status, and family income. Out of these variables, sex and place of residence were significant predictors of self-reported, Wave II youth delinquency ($p=.000$ and $.024$, respectively). Males were significantly more likely than females to self-report delinquent behavior, and youth who lived in rural areas were less likely than those who lived in urban areas to report delinquency.

Step 2 added the parenting style variable. Sex and rural residence remained significant in relation to Wave II delinquency, and parenting style also proved significant ($p=.007$). Youth respondents of authoritative parents were significantly less likely to self-report engaging in delinquent behavior than those of non-authoritative parents.

Step 3 added the Wave I delinquent peer association variable. Sex remained significant, however, place of residence lost statistical significance in relation to Wave II self-reported delinquency. Parenting style remained significant, and Wave I delinquent peer association was significant as well ($p=.000$). Youth who reported delinquent peer association at Wave I were more likely to self-report delinquency at Wave II.

The final step added the interaction term- parenting style by Wave I delinquent peer association. As reported above, sex, parenting style, and Wave I delinquent peer association remained significant in predicting Wave II self-reported delinquency. The interaction term, however, did not prove statistically significant.

I decided to reconfigure my approach from Regression 1. I wanted to know if it would make a difference if I introduced my variables stepwise. From the first regression, it was hard to determine the effects of my individual research variables on the overall model, as I included them all at the same time.

This allowed me to see slight differences in demographic variable significances from step to step. For example, in addition to sex, living in a rural city was a statistically significant (protective) predictor of youth self-reported delinquency at Wave II until Step 3 when the Wave I delinquent peer association variable was introduced into the model. This indicates that when delinquent peers are part of the equation, accounting for all other

variables in this step, where a child lives does not have a significant impact on whether they will be delinquent. Although the final output and interpretation for this model ended up being the same as that of the first, and it did not support my hypothesis, this method provided insight that the first model could not.

Regression #3

The third regression is a stepwise model as well, and self-reported youth delinquency at Wave II remained my dependent variable. However, in this regression, I included peer delinquency association data from Wave II instead of Wave I.

Step 1 consisted of only the demographic variables- sex, ethnicity, age, place of residency, parent marital status, and family income. Sex was significant ($p = .000$), as was age ($p=.043$), and place of residence. Males were more likely to report delinquent engagement than females, and older youth were more likely than younger. Respondents who reported living in rural areas were less likely than those who lived in urban areas to report engagement in delinquent behavior ($p = .018$).

In Step 2, I added the parenting style variable to the Step 1 demographic variables. With this adjustment, the place of residence variable lost its significance- both categories that were statistically significant in Step 1 became insignificant here. Sex remained significant, however, and the parenting style variable proved significant in predicting self-reported youth delinquent behavior at Wave II ($p = .027$).

At Step 3, reported peer delinquency at Wave II was added to the model. Sex remained a significant factor, but parenting style did not. The peer delinquency variable

itself was a significant predictor of Wave II youth delinquency. The odds of Wave II self-reported delinquency are higher by 12.9 for youth with delinquent peers than youth who reported no delinquent peer association ($p = .000$).

In the final step, I added the interaction term to the variables already present in Steps 1, 2, and 3. Sex remained significant, along with Wave II peer delinquency. The parenting style variable also remained insignificant. The interaction term- parenting style by Wave II delinquent peer association was not a significant predictor of Wave II youth self-reported delinquency. The final output for Step 4 of this model is reflected in Table 3.

Table 3*Wave II Delinquency by Parenting Style and Wave II Delinquent Peers*

Variable	B	S.E.	Exp(B)
Sex	-1.382***	0.332	0.251
Ethnicity	-0.490	0.275	0.613
Age	0.020	0.069	1.020
Place of Residence	-0.253	0.176	0.776
Parent Marital Status	-0.418	0.216	0.658
Family Income	-0.014	0.059	0.986
Parenting Style	-0.493	0.562	0.611
Wave II Delinquent Peer Association	2.612***	0.637	13.632
Parenting Style* Wave II Delinquent Peer Association	-0.043	0.701	0.958

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

Hosmer and Lemeshow Test:

Chi-Square	df	Sig
5.056	8	0.752

Nagelkerke R Square .313

Until this point, I had been concerned mainly with the effects of Wave I delinquent peer association on Wave II self-reported engagement in delinquent behaviors. Here, I look at contemporaneous delinquent peer associations. I tested to see if using Wave II delinquent peer associations, instead of Wave I, would have any significant effect on the overall model. It appears that it did.

First, regarding demographic variables, sex, age, and two categories (“Urban” and “Rural”) were significant in the first step. Then, when the parenting style variable was

introduced, “Urban” residency and age were no longer significant. This is not much different than the Regression 2 model, however, it still provides insight into the individual effects of some of the independent variables. Sex was the only demographic variable that was significant throughout all steps of the model; male respondents were .251 times more likely than their female counterparts to report engaging in delinquent behavior at Wave II.

At Step 3, when I add in the Wave II delinquent peer association variable, parenting style loses its significance. This indicates potential support for my hypothesis in that the presence of the former affects the significance of the latter. Regression 2 showed that the presence of Wave I peers did not affect the effect of the (Wave 1) parenting style on Wave II self-reported delinquency. Regression 3 is indicating that the presence of Wave II peers, however, affects the significance of the (Wave I) parenting style on Wave II self-reported delinquency. Once a child has contemporaneous delinquent peers, parenting style seems not to matter, in terms of protecting against their own risk of delinquency.

In Table 3, we see that the interaction term Wave II delinquent peer association by parenting style is not a significant predictor of Wave II self-reported youth delinquency. Despite the fact that one’s presence has an effect on the other’s significance, they do not directly interact in any statistically significant way. This does not support my hypothesis.

Regression #4

The final model included delinquent peer association from both waves. In this model, independent variables were also introduced in a stepwise fashion. Self-reported youth delinquency at Wave II remained my dependent variable. This model had five steps.

As with the previous regression models, I started off in Step 1 by including only the demographic variables- sex, ethnicity, age, place of residence, parent marital status, and family income. Sex was a significant factor ($p=.000$), as was age ($p=.000$), and place of residence. Youth who reported living in rural neighborhoods were significantly less likely to report delinquent engagement than those in urban neighborhoods ($p = .013$).

At Step 2, I introduced the parenting style variable to the demographic variables. Sex and age remained significant. Rural residence remained significant. The parenting style variable was a statistically significant predictor of self-reported youth delinquency at Wave II ($p=.008$).

Step 3 contained all the variables in Steps 1 and 2, with the addition of the Wave I delinquent peer association variable. Sex remained significant, but age did not. Parenting style was still a significant factor, with authoritative parenting having the effect of lowering the odds of delinquent behavior, and Wave I delinquent peer association proved a significant predictor of Wave II self-reported youth delinquency ($p=.000$).

Step 4 included all variables from the preceding steps, with the addition of the Wave II delinquent peer association variable. At this step, sex remained statistically significant, as did the parenting style variable, and the Wave I delinquent peer association

variable. The model at this step revealed that Wave II delinquent peer associations was a significant predictor of the dependent variable ($p=.000$).

At the final step of this model, I introduced an interaction term- Wave I delinquent peer association by Wave II delinquent peer association. I kept all variables from Steps 1, 2, 3, and 4. Sex remained significant, as did both waves of delinquent peer association, individually. With the introduction of this interaction term, parenting style was no longer a statistically significant predictor of Wave II youth delinquency. Despite its effect, however, the interaction term itself did not prove to be statistically significant. Table 4 displays the output from the last step of this fourth regression model.

Table 4*Wave II Delinquency by Parenting Style and Waves I and II Peer Delinquency*

Variable	B	S.E.	Exp(B)
Sex	-1.147**	0.356	0.318
Ethnicity	-0.461	0.286	0.630
Age	-0.046	0.078	0.955
Place of Residence	-0.227	0.191	0.797
Parent Marital Status	-0.430	0.240	0.651
Family Income	0.017	0.063	1.017
Parenting Style	-0.656	0.362	0.519
Wave I Delinquent Peer Association	1.961***	0.48	7.104
Wave II Delinquent Peer Association	2.740***	0.418	15.493
Wave I Delinquent Peer Association* Wave II Delinquent Peer Association	-0.872	0.591	0.418

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

Hosmer and Lemeshow Test:	Chi-Square	df	Sig
	2.015	8	0.981

Nagelkerke R Square .380

In this last regression, I tested to see if the interaction between the two delinquent peer association variables would be significant to the model, and whether the addition of this interaction term- delinquent peer association at Wave I by delinquent peer association at Wave II- would significantly affect the parenting style variable.

First, in regards to demographic data, sex was the only variable that remained consistently significant throughout the five steps of this model. This has proven

consistent throughout all four regression models. Here, the odds that female respondents report engagement in delinquent behavior at Wave II are 68.2% lower than male respondents.

Parenting style remained significant throughout the model, even when the past and contemporaneous delinquent peer associations were included, until I introduced the interaction term at Step 5. As shown in Table 4, the parenting style variable was not statistically significant when the interaction term was included in the model. Despite this effect, however, the interaction term itself is not significant. Individually, both waves of peer delinquency are significant, but the two do not directly interact with each other in a way that significantly predicts differential effects on Wave II youth self-reported delinquency.

By the final step of Regression 4, youth respondents who reported delinquent peer associations at Wave I were 7.104 times more likely to report delinquency themselves at Wave II than respondents who reported no delinquent peer associations at Wave I. Youth who reported having delinquent peers at Wave II were 15.493 more likely to report engaging in delinquent behavior themselves at Wave II than participants who reported no delinquent peer associations at Wave II. This is consistent with Regression 2 and 3 findings that showed that Wave II delinquent peer associations showed an effect of greater magnitude on Wave II self-reported delinquency than Wave I delinquent peer associations. Further, considering the odds of being delinquent based on the whole model, youth who reported delinquent peer associations at both waves are at a greater

risk of delinquency themselves than those who reported delinquent peer association at one wave only.

Discussion

In terms of addressing my research question as to the effect of delinquent peer association on the effect of authoritative parenting on youth delinquency, the four regression models in my study indicate that the answer is not straightforward. Further, they imply that the method for operationalizing these variables within the National Youth Survey matters.

Overall, these four regression models produce mixed results. The answer to my research question and support for my hypothesis depend on whether peer delinquency is measured at Wave I or II. Interaction terms were never significant, so my hypothesis regarding moderating effects was not supported. In fact, based on this lack of significance, I cannot conclude that parenting style and delinquent peer association interact in any statistically significant way. However, the issue of whether having delinquent peers will override authoritative parenting protection depends on factors such as whether the delinquent peer associations are contemporaneous or if they occurred in the past (or both), which other variables are at play, and how the variables are introduced. The fact that the interaction between Waves I and II delinquent peer association is not statistically significant indicates that the effect of having delinquent peer association at both waves does not result in different delinquency outcomes for the respondent youth. I conclude that this is perhaps a function of the model construction, related to the lack of Wave II parent data, or due to an effect of another extraneous variable related to peer delinquency.

Regression 3 shows the most support for my hypothesis, as parenting loses statistical significance upon the introduction of the (contemporaneous) delinquent peer variable. Models 1 and 2 do not support my hypothesis, as parenting style remains significant, even when (past) delinquent peer associations are introduced. Regression 4 could lead to a different interpretation, as it pertains to my hypothesis. The model disproves my hypothesis, as parenting style remains significant in the presence of (contemporaneous and past) delinquent peer associations. However, it potentially begins to lean in support when the parenting style variable loses significance at the inclusion of an albeit statistically insignificant contemporaneous by past peer delinquent association interaction term. The results of this study have shown the significant power of delinquent peer association, outweighing the effect that parenting exerts, even if not eliminating it.

In Regression 2, parenting style remained significant through all four steps of the model, so remaining significant with the addition of Wave I delinquent peer associations in Regression 4 was not surprising. However, parenting style remained significant after adding in the Wave II delinquent peer association variable. In Regression 3, the presence of Wave II delinquent peer associations rendered the parenting style variable insignificant, so I would have expected the same here. We do not see this, however. At Step 4, all independent variables- Wave I delinquent peer association, Wave II delinquent peer association, and parenting style- were statistically significant.

This could be due to several potential factors. As I mention in a later section, one limitation of using the NYS is that there is no parenting section in Wave II. Thus, I can rely only on the Wave I responses and assume that they remain true for Wave II. Missing

information like this can make interpretation of regression models more challenging. It is clear that the addition of the term is important, but it is not clear exactly why. Perhaps dichotomizing the parenting variable suppressed a more subtle effect of parenting that would have been evident had semi-authoritative parenting been considered separately. Nevertheless, when I conducted the initial cross tabulations between Waves I and II peer delinquency, the outcome proved significant. About half of respondents who reported delinquent peer association at Wave I also reported delinquent peer association at Wave II, so these two variables are correlated with each other. Such multicollinearity may be affecting the values of these coefficients and suppressing the actual effect.

I would attribute Regression #4's Wave II peer phenomenon to what previous research (Costanzo and Shaw, 1966) described as the inverted "U" shape of peer influence, that in adolescence, peers become more influential than parents. It is hard to conjecture, however, why this phenomenon would appear in the third regression, and not the first or second. These models indicate that this potential "U" shape of influence applies to current delinquent peer associations, and not past ones. This pushes back on the literature that calls delinquent peer associations "sticky" (Warr, 1993a). If delinquent peer associations were that enduring, we might have seen the same effects in Regression 2 as in Regression 3. In Regression 2, the effects of authoritative parenting were no longer statistically significant once Wave I peer delinquency was introduced into the model; in Regression 3, the effects of authoritative parenting remained statistically significant upon the introduction of Wave II peer delinquency.

Another consideration is that perhaps delinquent peer associations are “sticky”, in that the bond is lasting, but not necessarily in the effects on parental protections. Perhaps only fresher, more novel delinquent peer associations have this canceling effect, and then some effect of past parental influences returns as the friendship loses novelty. It is not that delinquent peer associations become insignificant in terms of predicting youth delinquency; peer associations remain significant at all steps of all my regression models, despite all other variables. It is that the peer delinquency variable’s effect on the protective parenting style variable grows weaker as the friendship goes on.

Part of this is due to the nature of regressions, in which each new variable introduced affects the others already present in the model. Taking this stepwise approach, I was able to see this phenomenon and identify when these changes occurred. Once all variables were considered, I was able to get a more definitive picture of all the relationships in the model.

Another comparison between Regressions 2 and 3 is that the effect of Wave II delinquent peer associations on Wave II self-reported youth delinquency is over two times greater than the effect of Wave I delinquent peer associations. While youth respondents who reported having delinquent peers at Wave 1 were 5.142 times more likely to report engaging in delinquent behavior themselves at Wave II, respondents who reported delinquent peer associations at Wave II were 13.632 times more likely to self-report delinquent behavior at Wave II. As stated previously, delinquent peer associations remained a significant risk factor for delinquency across the board. However, these

differences in magnitude support the notion that the specific effects of this association change with time.

It is possible, also, that youth who reported having delinquent associations in Wave I simply ditched their delinquent friends by Wave II. The cross tabulations between Wave I and II show that only about half of youth respondents who reported having delinquent peers in Wave I also reported having delinquent peers in Wave II. About 15% of youth respondents reported delinquent association at Wave I, and about the same reported delinquent peer association at Wave II. Although these percentages are similar, they do not mean that this 15% is made up of the same respondents at both waves. It is possible that we are not observing “contemporaneous” delinquent friendships versus “past” friendships, but two sets of different delinquent peer relationships altogether. However, the lack of significance of the Waves I and II delinquent peer association interaction term suggests contemporaneity did not specifically play a role in the analysis of this model.

The lack of significant interaction between parenting style and delinquent peer association could potentially be due to the fact that the effect of parenting style has the strongest influence when the parent is with the child (Veldhuis, Van Grieken, Renders, Hirasing and Raat, 2014). This likely occurs most in the home. Meanwhile, associating with peers tends to happen outside of the home- at school, in the neighborhood, etc. From this perspective, parents and peers operate in separate spheres, and so would not affect one another in terms of overall impact on the youth’s delinquency.

In my position as a case manager in a juvenile residential facility, I have seen firsthand, however, that this is not always the case. On my caseload, I have had youth who seem to come from what have been termed authoritative households. In authoritative families, parents say they have enforced firm, fair, and consistent rules at home, and encouraged good behavior. They appear to have open lines of communication with their children, prioritizing the youth's emotional health and fulfillment. They, unlike most other parents with whom I work, are present for every treatment team meeting, available for every weekly phone call, and often even send care packages when approved. These characteristics seem to fit the "ideal" parenting style for keeping kids out of trouble with the law, so, I often ask myself, "how did these kids get here?"

This study confirms that peer association plays a major role in predicting youth delinquency. It also shows that parenting style has an effect as well. Further, it illustrates that predicting delinquency is not straightforward, and that the inclusion of other demographic or predictor variables can affect peer and parent protective and risk factors. Youth with delinquent peers do tend to engage in delinquency more than those without. Youth with authoritative parents do tend to engage less in delinquent behavior. More research is required to understand how those two variables interact across different situations and environments.

The results of the research have potential implications for application in juvenile justice systems around the country, and for how researchers approach these topics in future research. The issue of juvenile delinquency prevention is dynamic and its explanations complex from case to case. With more information on the subject, groups

and individuals involved in solving these problems can do so more effectively. These findings could serve to help academics and practitioners alike gain a deeper understanding of juvenile delinquency and construct stronger, more informed delinquency prevention and intervention methods.

Parents

All the entities mentioned in the introduction of this paper could benefit from this research, but parents would probably profit the most from these findings. This study should indicate to parents that it is important to capitalize on pre-adolescent authoritative parenting and to cultivate a relationship of attachment, discipline, and empathy as early on in child rearing as possible, as the positive effect is tested in the teen years. This research suggests that an authoritative parenting style is largely effective in preventing youth delinquency, as long as youth do not become involved with delinquent peers.

To protect against delinquency, parents should also attempt to ascertain that their children are making prosocial friendship choices in their early years because parents will be less able to do so later on in their teens' lives. Walters (2020a) found that associating with prosocial peers significantly reduced the risk of behaviors such as property offending and drug use, whereas less association with these peers led to the direct opposite.

The findings of this research should also serve to relieve parents of full blame for their youth's behavior, as the study demonstrates the powerful effects of peer influence. This would show that even authoritative parenting is not a foolproof defense against juvenile delinquency.

It should be noted that the implications of this study do not assume that parents simply do not know this information. There is a plethora of potential obstacles for parents when it comes to implementing these authoritative initiatives. For example, perhaps the parent's career does not allow for substantial time with children, or perhaps the parent has other responsibilities or stressors that prevent them from being able to intercept delinquent friendships. State and local policies, then, should provide for the parent's ability to best supervise and protect their child.

Policy and Juvenile Justice Systems

Although this research focuses mainly on causes and prevention of juvenile delinquency, it could also influence how we treat and address this problem. It appears vital that prevention efforts be directed toward intercepting potentially delinquent relationships, and that rehabilitation protocols veer away from congregation with delinquent populations.

Prior research and the current study provide evidence for authoritative parenting as a protection against youth delinquency. Therefore, policy should encourage this sort of parenting, and address any barriers to it. These policies could range from labor and employment laws, such as those that provide workers more freedom to work from home or afford after-school-care for their children, to policies that provide parents easier access to mental health and social services that allow them to become more present in their children's lives. This would benefit individual families and their kids, but it would potentially also decrease municipal delinquency rates, benefiting society as a whole.

When it comes to juvenile delinquency, this study has reinforced prior findings that delinquent peer association is a major risk factor for delinquency. Thus, policies targeting juvenile delinquency should more seriously consider this. “Tough on crime” political sentiments often manifest in policies that send youth to juvenile detention centers for smaller-scale delinquent offenses. Based on this research, juvenile detention centers and other congregate care facilities are not conducive to protection against further delinquency. This is reflected in the literature on this topic. For example, one study found that Los Angeles County youth who received congregate care dispositions displayed significantly higher rates of recidivism than those who were assigned to community programs or were placed in a more prosocial family-like setting (Huang, Ryan, Sappleton and Chiu, 2015). Congregate care juvenile residential treatment and correctional centers exist all over the country, just like adult facilities. These programs and buildings house several delinquent youth together in an effort to “rehabilitate” them. If the results of this study are any indication, my findings support moving away from this model on the basis that encouraging close proximity to delinquent youth might just serve to perpetuate delinquency.

Policy in this area should gear toward protecting against further delinquent peer association. This could mean enacting and directing funds toward youth enrichment programs that promote prosocial behavior, individual treatment services, and family counseling. This would have implications for policies such as those that determine whether minors should be treated as adults and placed in adult prisons. “Peers” in these cases can end up referring to adult prisoners. This can result in even higher recidivism rates, and the inability to qualify for age-appropriate rehabilitation services (Redding,

1999). My research and the review of literature have illustrated the susceptibility of juvenile populations to outside influences, so it would behoove policymakers and other officials involved in the juvenile justice processes to make sure youth are surrounded by as much prosocial influence as possible.

This study also underscores the fact that several factors go into predicting youth delinquency. As it pertained to demographic factors, sex was the only significant predictor of risk. Ethnicity never ended up playing a significant role in any of the models, and neither did characteristics such as parent marital status or family income. While these factors might have proven significant individually in previous studies, this model emphasizes the importance of analyzing youth delinquency holistically. Such an approach serves not only to paint a clearer picture of the issue, but also to avoid instances of prejudice and unfounded racial or socioeconomic targeting. Racial profiling has historically been a major issue as it pertains to racial minorities' interactions with American justice systems, whether in policy or in practice (Lippert-Rasmussen, 2006; Cooper, 2015; Brunson and Miller, 2006). The results from my research push against the validity of these practices. In fact, literature shows that sort of profiling actually contributes to delinquent trajectories in minority teens (Evans et al., 2016).

Limitations

The results of this study must be considered in light of its limitations. The first limitation is timing. From the survey, it is not clear that the respondents' delinquent behavior occurred after forming delinquent friendships. If it was, I could more definitively say that delinquent peer association causes youth delinquency in this group.

This is not the case, so I can only demonstrate that a relationship exists. Similarly, this research does not explore why the delinquent peer associations form in the first place. Therefore, my study does not demonstrate any causal relationship.

Another limitation is that my operationalization of peer delinquency is constrained to the variables of the National Youth Survey. If a respondent has friends who have not committed any of those offenses but have committed others not listed, I would have assigned him/her to the group that does not have delinquent peer associations and consequently excluded him from my population of interest. Also, the NYS data only includes parent responses in Wave I. As my study relied on data from this section of the survey, this proved to be a limitation. Because I was using Waves I and II, but only had parent responses for Wave I, I had to assume those responses would remain relatively the same in a hypothetical Wave II parent survey. Certainly, it is possible that was not true in real life at Wave II, but using this survey, there was no way for me to have been made aware of any change in parenting style at Wave II. I decided on still using this parenting style variable, however, as research has shown that parenting style tends to remain relatively constant throughout parents' child-rearing years (Karmakar, 2017).

Another potentially major limitation is the age of the dataset. Wave I took place in 1976, measuring outcomes from 1975. As human behavior, values, and culture are constantly evolving, it can be argued that the responses do not apply to current times, and thus should be disregarded. Nevertheless, several articles of peer-reviewed research are still using data from this survey today.

Future Research Implications

This study focused on delinquent peer associations as a potential moderating factor on the effects of authoritative parenting, but I do not propose that this variable is the only plausible one. Future research should consider other known risk factors such as underlying mental health issues, bullying, and academic failure. Certainly, there can be and often is more than one moderating or mediating factor, so taking such other factors into account might affect the answer to my original research question. This leaves the issue open for further study.

Mental health is increasingly a point of focus as the tides of juvenile justice in America are veering to more of a rehabilitative structure than a punitive one. This has led to the discovery of much overlapping territory between delinquent behavior and mental health issues. For example, a study among incarcerated youth in Mississippi found that 71-85% of juvenile offenders met criteria for at least one mental health disorder (Robertson, Dill, Husain and Undesser, 2004). On a related note, this study also illustrated the potential connections between mental health, substance abuse, and juvenile delinquency, as about one-third of their incarcerated sample had a comorbid substance abuse problem. Similarly, research has found links between behavioral conditions such as Attention Deficit Hyperactivity Disorder and youth delinquency in young teenagers (Bernat et al., 2012).

Academic failure has also been linked to juvenile delinquency. For example, one potential pathway to delinquency might occur when an adolescent does not do well in school, becomes chronically truant, and further, becomes delinquent (Fuentes, 2003). This label of delinquency can come from the jurisdiction's classification of truancy as a

legal offense. This goes back to policymaking and law enforcement. Once a juvenile becomes strapped with the label of “delinquent”, this can cause internalization of the label and a subsequent increase in delinquent behavior (Kroska, Lee, and Carr, 2017). The label of delinquency can also arise from truancy-adjacent phenomena. The adolescent skips school, spends time unsupervised, becomes influenced by negative peers, and acts out of boredom or rebellion. Academic failure and underachievement have ties to juvenile delinquency that deserve further attention in the research realm.

The NYS asks respondents how much peers have influenced their thoughts/actions and how much parents have influenced their thoughts/actions. I believe the responses to these two explicit questions will contribute to valuable future research in this area. My study was interested in the relationship between my chosen variables, not respondent *perception* of influences, so I opted not to include these items in my study. However, it would be interesting to see how youth’s perception of influences compares to the appearance of actual influences as demonstrated in my study and in the history of research in this area. If these two are incongruent, it may serve to fortify the empirical claims that teens misjudge the impact of their influencers, and may lead to the idea of delinquency prevention simply through risk factor awareness. This might prove another impetus for future research.

Overall, as long as juvenile delinquency remains a problem, and society evolves, juvenile delinquency becomes more complex. For example, the National Youth Survey was administered in a time when cell phones, social media, and the world wide web were not prominent characteristics of society as they are now, as these technological advances

have changed the landscape of modern adolescence. The subject of juvenile delinquency is ever-evolving. Parents and peers seem a constant presence in the world of adolescent influence. The future of research in this area must take into consideration these pillars of influence while also measuring and balancing the influence of the adolescent's expanding environmental conditions.

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