

THE RELATIONSHIP BETWEEN PARENTAL MONITORING AND MARIJUANA
NON-USE AMONG AFRICAN AMERICAN AND LATINO ADOLESCENTS

By

MADISON NILSEN

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Dr. Stacia Gilliard-Matthews

And approved by

Dr. Stacia Gilliard-Matthews

Dr. Michelle Meloy

Dr. Robin Stevens

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THESIS ABSTRACT

The Relationship between Parental Monitoring and Marijuana Non-use among African American and Latino Adolescents

by MADISON NILSEN

Thesis Director:

Dr. Stacia Gilliard-Matthews

Previous research has found that parental monitoring is a primary protective factor against adolescent marijuana use. However, most research has approached it from a deficit perspective focusing on this substance as a small component in conjunction with other drugs and deviant behaviors. This study utilizes survey data to examine the relationship between parental monitoring and marijuana non-use among 249 African American and Latino adolescents. Social control theory is applied as a framework to understand the relationship between parental monitoring and an individual's choice to avoid marijuana. Results indicate that younger adolescents, females, non-African Americans, and increased parental monitoring have statistically significant relationships with marijuana non-use. Findings are important to stakeholders and community leaders in implementing prevention drug programs within inner city neighborhoods.

Introduction

Adolescent marijuana use is a major public health concern in the United States. As the primary drug of choice, 40% of adolescents report smoking marijuana at least once in their lifetime and marijuana use rates have continued to rise since 2009 (CDC, 2011). While legalization of recreational and medical cannabis in some states has contributed to more liberal public attitudes, individual concerns regarding the negative health and legal consequences for adolescent marijuana use still exist (Resko, 2014). Despite the public's opinion on the health consequences of marijuana use, if ingested during adolescence, it can contribute to numerous social and developmental issues (Newcomb & Bentler, 1988; Mahmood et al, 2010; Lisdahl, 2014). Adolescents that have used marijuana and/or other drugs during their childhood are more likely to engage in deviant behavior, have lower attention spans, suffer decreased learning and processing speeds, experience permanent brain damage, and exhibit reduced sleep quality compared to their non-drug using peers (Newcomb & Bentler, 1988; Mahmood et al, 2010; Lisdahl, 2014). The complexity of health and social factors surrounding adolescent marijuana consumption may additionally contribute to the majority of individuals seeking treatment for marijuana use, especially those under the age of 25 (Budney, Roffman, Stephens, & Walker, 2007).

While marijuana use is common across a range of ages, races, ethnicities, and socioeconomic statuses, adolescents ultimately experience their use in varying ways. For instance, gendered differences among adolescent marijuana use reveal that males appear more likely to use drugs (Elliott, Huizinga, & Menard, 1989; Hindelang, Hirschi, & Weis, 1981; Penning & Barnes, 1982), including marijuana, than females (Johnston et al.,

2013), have an earlier age of onset in marijuana use, and are more likely to have heavier marijuana use throughout their lifetime (Kandel & Chen, 2000). Racial disparities show African American adolescents have lower substance use rates, including marijuana use, than Caucasians (Johnston et al., 2004; Wallace, 1999), but still experience negative outcomes into adulthood including unemployment, being unmarried, and having children outside of marriage (Green & Ensminger, 2006). Latino adolescent also exhibit lower monthly rates of substance use, including marijuana use, compared to Caucasians (U.S. Department of Health and Human Services, 2003), yet encounter cultural and social issues that may contribute to substance use such as ethnic discrimination, socioeconomic stress, and lack of educational opportunities (Johnston et al., 2009). Environmental factors indicate that minority adolescents growing up in impoverished neighborhoods, plagued by violence and illegal substance use, are more inclined to experiment with illicit drugs (Schinke, Fang, & Cole, 2009; van den Bree & Pickworth, 2005; Winstanley, Steinwachs, Ensminger, Latkin, Stitzer, & Olsen, 2008), with marijuana often being the first and most commonly used drug (Johnston, O'Malley, Bachman, & Schulenberg, 2007). Additionally, current research examines the growing influence of media exposure and social networking upon adolescents' decisions to engage in marijuana and other substance use (Ennett et al., 2006; Palmgreen et al., 2001; Morgan, Snelson, & Elison-Bowers, 2010).

Peer and parental influences also have been studied as two of the most robust factors affecting adolescent behavior, particularly drug usage. Inconsistencies in research have created a tug-of-war effect in which peer and parental relationships battle each other as the stronger influence (Newcomb, 1992). Some research indicates that peers have a

greater influence on adolescent drug use (Brook et al., 2001; Hoffmann, 1993; Wills, Mariana, & Filer, 1996). However, other researchers conclude that parental support and control are associated with adolescent drug use (Hawkins, Catalano, & Miller, 1992; Kandel, 1996; Peterson & Hann, 1999; Wright, Cullen & Wooldrege, 2000). Further findings support that parent-child communication and parental monitoring are successful in preventing and intervening in adolescent substance use (Conger et al., 1993; Beatty, Cross, & Shaw, 2008; Kosterman, Hawkins, Spoth, Haggerty, & Zhu, 1997; Shortt, Hutchinson, Chapman, & Toumbourou, 2007).

While prior research has examined the roles of parenting and other influential factors on adolescent substance use, most studies do not provide a comprehensive understanding of the ways adolescents perceive their non-use in light of parental monitoring. Furthermore, researchers tend to categorize marijuana use under a broader umbrella of adolescent substance use (i.e. alcohol and/or illicit drugs) and even fewer studies investigate marijuana use as a unique variable. For example, Dorius, Bahr, Hoffmann, & Harmon (2004) investigated the role of parenting practices as moderators between peer influences and marijuana use, while Lac et al. (2011) studied gendered differences of protective familial factors related to marijuana use among Latino adolescents. Given these research and knowledge limitations, this study seeks to contribute to current literature by 1) utilizing survey responses with inner city African American and Latino adolescents, 2) examining marijuana use as a separate drug from other substances, and 3) analyzing the relationship between perceived parental monitoring and adolescent marijuana non-use.

Parental Monitoring Defined

While the concept of parental monitoring traditionally has been associated with forms of delinquency (Biglan, Duncan, Ary, & Smolkowski, 1995; Metzler, Noell, Biglan, Ary, & Smolkowski, 1994), its application can vary based on the researcher's conceptual definition. The original definition of parental monitoring examined by Dishion and MacMahon (1998) defined the term as "parenting behaviors involving attention to and track of the child's whereabouts, activities, and adaptations" (p. 61). More recently, Stattin and Kerr (2000) defined parental monitoring as the amount of knowledge a parent has about their child's activities versus an actual measure of parenting practices and behaviors. Additional research on this reconceptualization has emphasized the importance of child disclosure of activities on parental knowledge and its relationship to delinquent behaviors (Fletcher, Steinberg, & Williams-Wheeler, 2004; Lahey, Van Hulle, D'Onofrio, Rodgers, & Waldman, 2008; Soenens, Vansteenkiste, Luyckx, & Goossens, 2006; Eaton, Krueger, Johnson, McGue, & Iacono, 2009). In connection with these findings, this study will utilize Stattin and Kerr's (2000) definition of parental monitoring.

Theoretical Foundation

According to the premise of social control theory, Albert Reiss (1951) first defined delinquency as "...the behavior consequent to the failure of personal and social controls" (p. 196). Reiss' (1951) contribution to the theory also emphasized the importance of primary groups, such as the family, in providing reinforcement against delinquent behaviors. Ivan Nye (1958) later expanded the definition of social control

theory with the development of three categories of social control against delinquency. *Direct control* refers to the punishment that is imposed for delinquent behavior and rewards that are given for compliance. *Indirect control* refers to the extent that an individual refrains from delinquency for fear of causing pain or disappointment for parents or significant others. Last, *internal control* is the individual's conscience or guilt preventing him or her from engaging in delinquent behavior. Nye (1958) examined the family as the most important agent of socialization and believed adolescents would be less deviant if their family met their needs for affection, security, and recognition.

Social control theorists propose adolescents who maintain a close relationship with their parents will navigate away from marijuana use in part because of these relationships and attachments (Rankin & Kern, 1994; Wright & Cullen, 2001). In relation to parental monitoring, adolescents respond similarly. When parents are aware of their children's whereabouts and activities, adolescents feel compelled to avoid marijuana use since they are aware of parental observation. Additional studies have constructed their examination of parental monitoring and adolescent substance use, including marijuana use, based on the framework of social control theory (Parsai, Kulis, & Marsiglia, 2010; Vitaro et al., 2000; Dorius, Bahr, Hoffmann, & Harmon, 2004).

Considering current research, this study further examines the relationship between parental monitoring and adolescent marijuana non-use. The attributes of direct and internal control of adolescent behavior and activities are utilized to determine the influence on the choice to abstain from using marijuana. Based on the parameters of Nye's social control theory, I hypothesize adolescents reporting higher levels of parental monitoring will have a decreased likelihood of using marijuana. I believe adolescents

experiencing examples of direct and internal controls, as explained in Nye's proposal, are protected against delinquent behavior, and therefore, will experience a decrease in the likelihood to use marijuana with these restrictions.

City Demographics

Located in the southern region of the state, Camden, New Jersey is an eight square mile city across the Delaware River from Philadelphia. As of 2011, it had an estimated population of over 77,000 residents and racial distributions that comprised 48% African American, 47% Latino/a, and 5% white and other (U.S. Census Bureau, 2010). Approximately 36% of the population lives beneath the poverty line and its residents maintain an average median household income of \$27,000 (U.S. Census Bureau, 2010). Relative to other towns and cities in the state, Camden has a young demographic profile with 32% of the population beneath 18 years of age (U.S. Census Bureau, 2010, 2011). Crime statistics for Camden exceed the national average by six times, making it one of the most dangerous cities in the United States. In 2012, it held the highest murder rate in the country with 67 murders. Additionally, Camden residents face multiple risk factors, including high childhood poverty rates (19%), high unemployment rates (11%), more single parent households (37%), and low graduation rates (66%) (U.S. Census Bureau, 2010).

Data and Methods

This study utilized survey responses gathered from the EPIC Camden Research Study, a multi-year project investigating how adolescents navigate risky behaviors in high crime and high poverty neighborhoods. Participants were recruited utilizing a modified venue-based sampling technique, which involved the study's primary investigators forming relationships with non-profit community programs serving youth interests in the city. Eight programs were chosen for participation and included organizations such as the Boys and Girls Club, after school activities, and adolescent outreach efforts. Program leaders encouraged adolescents to participate and provided administrative support during survey days. In order to balance the number of youth recruited from agencies, additional sampling occurred using randomized street recruitment. During this process, researchers spent several months monitoring patterns of adolescent activity at public locations throughout the city. Fliers and palm cards were disseminated at these locations, which included transportation centers, corner stores, and neighborhood parks.

A final sample of 249 adolescents was achieved. To meet research requirements, adolescents were eligible for participation if they were between the ages of 13-24 years, identified as African American or Latino, and currently lived in Camden city. Human subject protection procedures were followed in accordance with approval of the University's Institutional Review Board. Parental consent forms were obtained for participants under age 18, while those 18 years and older provided their own consent. Compensation of \$25 was provided to all participants for their time and involvement.

Survey administration occurred at the eight program sites and on campus. Prior to answering questions, each adolescent was given a personal identification code to protect his or her identity and confidentiality. The questionnaire comprised of 120-items covering demographic information, health, school performance and involvement, neighborhood safety, alcohol consumption, sexual habits, and substance use. Participants were administered the survey via MediaLab software on netbooks that responded to keyboard input or touch screen responses. For participants requiring comprehension assistance, researchers were available to help objectively. Each survey took approximately 45 minutes to complete, but participants were encouraged to take their time answering honestly and thoroughly. No participants withdrew from the study at any time.

Dependent Variable

This study assessed the outcome variable of adolescent avoidance of marijuana use. Adolescent marijuana use was measured using the prompt “Have you ever, even once, smoked marijuana?” and included responses of $1 = Yes$ and $2 = No$. It was recoded into a dummy variable in the following analyses with non-marijuana use (2) as the reference category.

Independent Variables

This study assessed independent variables of gender, age, race, and adolescent reports for parental monitoring. Parental monitoring, the main predictor variable, was assessed via a four-item scale that measured the participant’s belief of parental awareness and involvement in their daily and social activities. Questions included the following

statements: 1) "If you are going to be home late, your parent(s) expects you to call and let them know, 2) In general, you tell your parent(s) who you are going to be with before you go out, and 3) When you go out, your parent(s) ask you where you are going."

Responses were measured on a Likert scale ranging from *1 = Never* to *5 = Always*. The fourth question asked "Your parent(s) check or monitor your activities on the internet like websites, and social networking accounts" and also utilized a Likert scale for responses including *1 = I don't have any internet accounts*, *2 = Never*, *3 = Rarely*, *4 = Sometimes*, *5 = Most of the time*, and *6 = Always*. The four questions were combined into a subscale to assess parental monitoring as a single variable with high reliability ($\alpha = .8185$). Age was analyzed as a continuous variable in all models. Gender was coded in the original survey as *1 = Female* and *2 = Male*. It was recoded into a dummy variable in the following analyses with males (*2*) as the reference category. Race was recorded in the original survey with participants checking all and any applicable options that included *1) Black/African American*, *2) Hispanic/Latino*, *3) White*, *4) Asian or Other Pacific Islander*, *5) Native American/American Indian*, and *6) Other*. It was recoded into a dummy variable in the following models with participants identifying as Hispanic/Latino, White, Asian or Other Pacific Islander, Native American/American Indian, and/or Other (*2, 3, 4, 5, and/or 6*) as the reference category.

Data Analysis

The data analysis comprised several steps to determine the relationship between parental monitoring and marijuana non-use. First, descriptive statistics were calculated to illustrate the mean, mode, and standard deviations from the survey responses. Then, logistic regression was conducted, given the dichotomous dependent variable, to investigate a predictive relationship between parental monitoring and adolescent marijuana non-use. I also controlled for age, gender, and race in the analysis. All statistical analyses were conducted in SPSS 22.0 (IMB Corp 2013).

Results

Of the 249 adolescents participating in the study, 151 were females (60.6%) and 98 were males (39.4%). Collectively, 140 adolescents reported using marijuana in their lifetime (56.2%), while 109 reported never using marijuana (43.8%). Ages of participants ranged from 13 - 24 years of age, with an average age of 18.2 years ($SD = 3.240$). The sample's racial distributions comprised of 160 adolescents identifying as African American (64.3%) and 89 adolescents identifying as Latino, White, Asian, Native American, and/or Other (35.7%). Table 1 also indicates descriptive statistics for the parental monitoring subscale.

Table 1. Descriptive Statistics

Variables	N	Mean / %	Range	Std. Deviation
Gender				
Female	151	60.6%	--	--
Male	98	39.4%	--	--
Age	249	18.20	13 - 24	3.24
Race				
African American	160	64.3%	--	--
Non-African American	89	35.7%	--	--
Parental monitoring subscale items	--	3.34	--	1.20
Marijuana use				
Used marijuana	140	56.2%	--	--
Did not use marijuana	109	43.8%	--	--

Table 2 illustrates a logistic regression for age, gender, race, parental monitoring, and marijuana non-use use. As indicated, parental monitoring has a marginally significant relationship with adolescent marijuana non-use. As parental monitoring increases, there is a marginally significant increase in adolescent marijuana non-use with $p \leq .1$, when all other independent variables are held constant. Adolescents who reported increased measures of parental monitoring were 1.3 times more likely to have not used marijuana compared to those with less parental monitoring. A decrease in age is also significantly associated ($p = .001$) with a likelihood of avoiding marijuana use when all other variables in the model are held constant. Therefore, younger adolescents are less likely to engage in marijuana use compared to older adolescents. Females are also marginally significantly more likely to avoid marijuana use than males ($p \leq .1$) with all other variables held constant. Last, adolescents racially identified as non-African American have a marginally significant relationship with never using marijuana ($p \leq .1$). Compared to African Americans, these adolescents were 1.7 times more likely to avoid marijuana use when all variables in the model are held constant.

Table 2. Logistic Regression Model of Marijuana Non-Use on Control and Explanatory Measures ($N = 249$, Pseudo $R^2 = .285$)

Control and Explanatory Measures	b (S.E.)	Odds Ratio
Gender		
Male	-.639 (.333)*	.528
Participant Age		
Age	-.375 (.062)***	.687
Race		
Non-African American	.551 (.318)*	1.735
Parental Monitoring		
Parental Monitoring Subscale	.270 (.145)*	1.310
Constant	5.606 (1.407)	271.950

* $p < .1$, ** $p < .05$, *** $p < .001$

Discussion

The findings are similar to previous research examining the relationship between parental monitoring and adolescent marijuana non-use. While previous research has studied this relationship primarily from a deficit approach, this study illustrates similar findings focusing on adolescents that do not use marijuana. Guided by Nye's framework of social control theory, this study examines the importance of parental monitoring and its relationship with adolescent marijuana non-use. Additional results concerning gender, age, and race confirm significant relationships with marijuana non-use.

As predicted in the hypothesis, an increase in parental monitoring is significantly associated with the likelihood of adolescent marijuana non-use. This finding is consistent with prior research that identifies parental monitoring of adolescent activities as a protective factor against risky behavior and drug use (Sullivan, Kung, & Farrell, 2004; DiClemente et al., 2001; Borawski et al., 2003; Li, Fiegelman, & Stanton, 2000), including marijuana use (Lac & Crano, 2009; Ramirez et al., 2004). Parental monitoring, defined by Stattin and Kerr (2000) as "parental knowledge of the child's activities, whereabouts, and relationships," in this study concurs with current research emphasizing the importance of adolescent disclosure to parents. In a meta-analytic review by Lac and Crano (2000), parental monitoring of adolescent marijuana use typically utilized broad assessments (i.e., "Do your parents know what you are doing?") versus narrow ones (i.e. "Do your parents typically know whether you are using marijuana?"). Similarly, this study examines how general parental awareness of adolescent activities, whereabouts, communication, and Internet usage significantly affects the likelihood of marijuana non-use. Considering that parental knowledge is protective against a specific delinquent

behavior, it is possible that monitoring-based behavior is protective against other delinquent behaviors. Additionally, the examination of adolescent behaviors through Nye's attributes of direct and internal control yield new insight into the application of social control theory. While Nye's definition utilized three attributes of social control theory to prevent adolescent delinquency, this study found prevention of marijuana use could be accomplished within this sample using only two attributes. Parental monitoring of social media use was also uniquely tested with this framework.

Gender differences in this sample reveal females are significantly more likely to avoid marijuana use than males. While the Monitoring the Future study (2013) indicates that past year marijuana use for males was 29% compared to 24% for females (Johnston et al., 2013), gendered differences associated with marijuana non-use continue to be understudied. For African American and Latino females, even less is known about their use. For example, prior research by Schepis et al. (2011) indicates African American females have lower odds than males for having used marijuana within the last 30 days. This study expands knowledge of this sample to reveal females having a significant likelihood of never using marijuana throughout their lifetime. Previous studies of gendered differences propose females are more highly monitored than males and therefore, are less likely to engage in delinquent behavior (Svensson, 2003).

Younger adolescents are also significantly more likely to avoid marijuana use than their older peers. This result is comparable to results observed by Kosterman et al. (2000) that indicate initiation of marijuana use remains relatively flat until age 13, but rises steadily over the next five years. At the time, they attributed this relationship to the influence of proactive parenting; family management practices were found to decrease

the initiation of marijuana use. Further research on adolescent marijuana use shows that initiation typically peaks around the age of 15 (Gfroerer, Wu, and Penne, 2002; Labouvie and White, 2002) and eventually declines around age 19 (Gfroerer, Wu, & Penne, 2002). Considering that younger adolescents in the sample were more likely to have never used marijuana, it is possible that parental monitoring of adolescent activities is higher at younger ages and eventually declines as adolescents grow up and make more independent choices.

Racial differences among adolescents reveal non-African Americans are less likely to engage in marijuana use than African Americans. Contrarily, prior research indicates African American adolescents exhibit lower rates of marijuana and other substance use compared to their white peers (Johnston et al., 2004; Chen & Killea-Jones, 2006). However, few studies have explored how African American adolescent marijuana and/or other substance use compares to other minority groups. For example, Bachman et al. (2001) found adolescent substance use to be the lowest among African and Asian Americans, while Wallace et al., (2002) obtained similar results for marijuana use. Additional research examining Latino adolescent substance use suggests minority parents are highly vigilant of their children's activities and particularly important in preventing drug use (Wagner et al., 2008). Similarly, non-African American adolescents in this study may experience closer parenting than their African American peers, thus attributing to their avoidance of marijuana use.

Although findings of this study are notable, limitations must also be considered. While it examines the relationship between parental monitoring and adolescent marijuana non-use, the sample obtained is non-representational of the greater

population of Camden, thus results cannot be generalized. Additionally, the relationships reported are cross-sectional in nature, making it difficult to determine the direction of impacts between parental monitoring and marijuana non-use. Lastly, the measure of parental monitoring is a small concept under a much larger umbrella of parenting practices. In future studies, further measures such as parental control, parental support, and parental expectations should be examined to gauge a more comprehensive understanding of parenting relationships.

Findings of this study, nonetheless, are dynamic in a few ways. First, it provides information useful for researchers, youth-serving agencies, parents, and other stakeholders to utilize when strategizing ways to prevent adolescent marijuana use. Specifically, the measure of parental monitoring is important to examine as a protective factor against risky adolescent behavior. Next, findings consistent with prior studies are important to observe. This study was unique in its examination with an understudied population of African American and Latino adolescents living in inner city neighborhoods. Last, significant results concerning participant gender yield further insight into potential gendered differences in the ways adolescents avoid marijuana.

By considering these findings, this research should encourage awareness of parental practices targeting the monitoring of adolescent activities. Prior research traditionally has studied parental monitoring as a protective factor when examining adolescents that use marijuana. In contrast, this study yields similar results when examining the relationship between parental monitoring and adolescents who do not use marijuana. Additionally, the utilization of direct and internal controls provides important tools for parenting practices. Programs and policies focusing on parenting techniques

should consider these methods to improve parent-child communication and encourage positive adolescent behaviors.

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