Pathways and predictors of antisocial behaviors in African American adolescents from poor neighborhoods

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ABSTRACT

Antisocial behavior among youth remains a serious personal and social problem in the United States. The purposes of this study were to (1) identify the shape and number of developmental trajectories of antisocial behavior in a sample of poor, inner-city African American youth, and (2) test predictors of group membership and the developmental course of antisocial behaviors. Using growth mixture modeling, we examined predictors of antisocial behavior pathways and the likelihood of arrest in a sample of 566 poor, urban African American adolescents (ages 11 to 16). Three distinct trajectory classes of antisocial behavior were identified over a period of six years: one low-risk group (*low steady*) and two high-risk groups (*incremental* and *high starter*). The conditional probabilities for being arrested during ages 14–16 were 0.18 for the low steady class, 0.68 for the incremental class, and 0.31 for the high starter class. Prevention strategies for adolescents at high risk are discussed.

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1. Introduction

Antisocial behavior, often interchangeably used with delinquency, violent behavior, conduct problem, and deviant behavior, is one of the most serious behavioral problems in the United States and incurs costs to individuals, families, and the society as a whole. Antisocial behavior is defined in this paper as *behavior that violates social norms or the rights of fellow human beings*. Because of its significance, a number of efforts exist to understand how antisocial behavior develops over the life course and to comprehend the predictors and consequences (e.g., Schaeffer, Petras, Ialongo, Poduska, & Kellam, 2003). Although a general tendency of decreasing rates of antisocial behavior is reported as youth reach adulthood, research also indicates a strong link between childhood antisocial behavior and subsequent chronic offenses during adulthood (Bongers, Koot, van der Ende, & Verhulst, 2008; Huesmann, Eron, & Dubow, 2002). In particular, minority youth in urban, poor neighborhoods have high risks of being exposed early to violence and of developing antisocial behavior (Spano, Rivera, & Bolland, 2006; Tolan, Gorman-Smith, & Henry, 2003; Walker, Maxson, & Newcomb, 2007). Thus, it seems paramount to develop effective prevention and intervention efforts for minority youth to reduce the chances of subsequent criminal behaviors.

Research indicates that biology and personal attributes such as social maladjustment and value orientation play an important role in predicting antisocial behavior of youth (Moffitt, 1993), yet attention has also been placed on contextual characteristics that shape the environment for the youth. An ecological perspective indicates that an environment surrounding individuals (e.g., family, school) can have a profound influence on adolescents' antisocial behavior (Gorman-Smith, Tolan, & Henry, 2000; Seidman et al., 1998). Nevertheless, neither developmental perspectives nor environmental characteristics alone may account for trajectories of antisocial behavior. The developmental–ecological perspective argues that individual development is influenced by the ongoing qualities of the social settings in which the child lives and interacts with outer world (Gorman-Smith, Tolan, Loeber, & Henry, 1998; Gorman-Smith et al., 2000; Le Blanc & Kaspy, 1998). That is, personal characteristics and environmental settings may collectively contribute to the formation and development of the trajectories of antisocial behavior.

2. Multiple trajectories of antisocial behavior during adolescence

The importance of identifying and preventing antisocial behavior has given rise to testing patterns of antisocial behavior and trajectory modeling. In such effort, Moffitt (1993) proposed two distinct

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trajectories: a persistent, long-lasting trajectory of antisocial behavior (life-course persistent) and temporary or situational trajectory during adolescence (adolescence-limited). A life-course persistent pathway may be characterized by an early-onset trajectory of antisocial behaviors linked with chronic offending as an adult (Piquero & Chung, 2001). In contrast, adolescence-limited antisocial behavior, which peaks during adolescence, shows little continuity over the life course. This life-course persistent vs. adolescence-limited differentiation, however, is only capable of explaining two distinct developmental trajectories, while evidence suggests that there may be multiple pathways of antisocial behavior.

Earlier, Loeber, Stouthamer-Loeber, Van Kammen, and Farrington (1991) classified juvenile offenders based on the offense level over two years in a panel study that included three age groups of boys (ages of 6, 10, and 13 years) from Pittsburgh public schools. They identified seven groups based on the involvement of offending: nondelinquent, starters, stable, moderately serious offenders, escalators, stable, highly serious offenders, de-escalators, and desistors. Similarly, Gorman-Smith et al. (1998) followed a sample of urban minority boys over a three-year period. The sample consisted of African American and Latino boys, between the ages of 11 and 15 at the first interview, from economically disadvantaged neighborhoods. The authors identified four patterns that characterized delinquency involvement over time: no offenders, chronic minor offenders, escalators, and serious chronic offenders.

Le Blanc and Kaspy (1998) also identified four different pathways based on the frequency and types of delinquent behaviors, namely moderate delinquency, intermediate delinquency, persistent delinquency, and serious persistent delinquency. Recently, Park, Lee, Bolland, Vazsonyi, and Sun (2008) examined longitudinal patterns of antisocial behavior among minority adolescents (ages 12 through 15) residing in inner-city, poor neighborhoods. They identified three distinct developmental trajectories of antisocial behavior: high starters, incremental group, and steady group.

Although aforementioned studies demonstrate multiple trajectories of antisocial behavior, it is often difficult to compare the trajectories across different studies because they differ with respect to age spans, definitions of antisocial behavior, or methods to examine trajectories. Some studies may not fully address the dynamic process of antisocial behavior methodologically. This is so for a number of reasons. For example, in some work, antisocial behavior trajectories were assigned to conceptually "pre" determined categories rather than deriving classes of trajectories through an analytical process (e.g., Loeber et al., 1991). Other studies derived patterns of antisocial behavior using clustering methods; these might be better suited for cross-sectional data (e.g., Gorman-Smith et al., 1998; Le Blanc & Kaspy, 1998). Although the study by Park et al. (2008) is one of the few studies to date that utilized the dynamic classification method of growth mixture modeling (GMM), their study is limited in that the whole purpose of the study was to classify developmental trajectories of antisocial behavior and that class profiles were examined descriptively afterwards. In addition, these studies cover a short period of follow-ups (about three years) or use different age groups rather than following individuals over time.

In consideration of these limitations, the present study aims to classify antisocial behavior trajectories during a longer period of adolescence (ages 11 through 16) using GMM modeling. The study also aims to test and include both theoretically and empirically important predictors as well as an important outcome variable, namely the probability of arrest.

3. Environmental and individual characteristics influencing antisocial behavior

3.1. Family characteristics and school factors

Family characteristics have been consistently identified as one of the strongest predictors of antisocial behavior in children and adolescents

(Dekovic, Janssens, & Van As, 2003; DuRant, Cadenhead, Pendergrast, Slavens, & Linder, 1994). A large body of literature suggests that lack of parental monitoring and poor disciplines are related to adolescents' involvement in antisocial behavior (Patterson, DeBaryshe, & Ramsey, 1989; Spano, Rivera, Vazsonyi, & Bolland, 2008; Walker et al., 2007). Laird, Criss, Pettit, Dodge, and Bates (2008) found that greater parental monitoring knowledge was associated with less antisocial behavior involvement.

Involvement in school discipline (e.g., school suspension and expulsion) is an important outcome of violent behaviors and predicts more serious developmental outcomes later. Out-of-school suspension is among the most common consequences for disciplinary infractions (Bowditch, 1993; Raffaele Mendez, Knoff, & Ferron, 2002). Fights and physical aggression among students are consistently found to be among the most common reasons for suspension (Costenbader & Markson, 1998; Raffaele Mendez et al., 2002). In contrast to suspension, school expulsion tends to be used relatively infrequently (Sinclair, 1999). Morrison, D'Incau, Couto, and Loose (1997) report that expulsion appears to be reserved for incidents of moderate to high severity of troublesome or dangerous behaviors. A limited number of studies have focused on the associations between involvement in school discipline and the antisocial behavior trajectory. One study by Walker and Sprague (1999) found that the number of discipline contacts during the school year for a child was a prominent predictor of arrest status during later school years.

3.2. Substance use involvement

Evidence suggests that substance use and antisocial behavior are highly linked (Clark, Vanyukov, & Cornelius, 2002; Friedman, 1998; Rainone, Schmeidler, Frank, & Smith, 2006; Wiesner, Silbereisen, & Weichold, 2008). For example, Strand (2002) reported that alcoholism was 21 times more likely to occur among individuals with antisocial behavior disorder than those without it. Farrell et al. (2005) used latent growth curve analysis to examine the structure and interrelations among aggression, drug use, and delinquent behavior during early adolescence among both urban and rural groups of youth, and found positive relations among all three behaviors. Although it is difficult to sort out the sequential order between substance use and antisocial behavior, it is likely that substance involvement at early ages affects the trajectory of antisocial behavior.

3.3. Self concepts and hopelessness

The close relation between self concepts and antisocial behavior has also been documented. It is generally reported that antisocial children tend to hold negative self concepts. In a study across three ethnic groups of adolescents, Guerra, Huesmann, Tolan, Van Acker, and Eron (1995) suggested that stress and poor self concepts contributed significantly to the prediction of aggression for all ethnic groups. It is frequently reported that there is a wide sense of hopelessness shared by many inner-city children at risk (Guerra et al., 1995). DuRant et al. (1994) found that self-reported use of violence was associated with hopelessness among 225 teenagers living in urban housing projects. Bolland, MaCallum, Lian, Bailey, and Rowan (2001) indicated that hopelessness was a strong predictor of violent behavior for both girls and boys from inner-city poor neighborhoods, and this finding was validated on a larger sample of inner-city adolescents in later work (Bolland, 2003).

4. Purpose of the study

A number of studies have reported on different trajectories of antisocial behavior during adolescence (Gorman-Smith et al., 1998; Loeber et al., 1991, 1993); however, most have focused on indentifying the number of trajectories as opposed to predictive models of trajectories based on theoretical and empirical evidence. In addition,