Gang Risk Factors and Academic Readiness in a Southern Middle School

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Abstract
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Gangs, cliques, risk factors, middle school education, Latino, academic achievement

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Gang Risk Factors and Academic Readiness in a Southern Middle School

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Abstract: The current Georgia study examines middle-school-aged gang and non-gang members regarding the risk factors of gang membership and potential effects of these risk factors on academic achievement. Participants, 406 eighth grade students from a suburban middle-school, completed a 42-item survey assessing an array of demographic and risk factor variables. In addition, students provided self-report information regarding their success on national standardized testing used to measure academics readiness. Of the 28 variables analyzed, lower academic readiness was associated with ethnicity and/or gang membership. Findings are discussed in light of the complexity of the gang issue and the importance of recognizing the specificity associated with demographic predictors. Researchers are encouraged to continue exploring gang involvement in a variety of settings investigating differences in locality, school structure, and race/ethnicity. Teachers, parents, school administrators, and other key stakeholders may examine the aforementioned differences to collaboratively develop and share prevention and intervention successes and failures to enhance academic readiness and reduce gang involvement among youth.

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Street gangs are an amalgam of racism, of urban underclass poverty, of minority and youth culture, of fatalism in the face of rampant deprivation, of political insensitivity, and the gross ignorance of inner-city (and inner-town) America on the part of most of us who don't have to survive there.

–Malcolm Klein, 1995

Family structure, parental income and education, and their relationship to gang membership are continually being revisited (Howell, 2000, 2007; Decker, Melde, & Pyrooz, 2013; Decker & Van Winkle, 1996). As a result of ongoing gang research, the traditional stereotypes associated with gang members continue to be revised. The outdated stereotype of gang members as inner-city, Black and Hispanic males from low income, single-parent homes is too limiting. In reality, more contemporary family-parent arrangements, within both two-parent and single-parent homes may have gang associated youth. Furthermore, having parents with low paying salaries or less education are not always the primary factors associated with gang involvement, as gang members come from various social classes (Klein, 1995; Howell, 2000, 2010; Moore & Cook, 1999).

In much of the United States, gangs have strong ethnic roots, are often disorganized and engage in a good deal of criminal activity (Decker et al, 2013; Decker & Van Winkle, 1996; Klein, 1995). Differences within the U.S. gang culture and area youth cultures are problematic in that gang hybridization may distract from the importance of local-based specifics associated with such a mix (see Decker, Pyrooz, Sweeten, & Moule, Jr., 2014). Support for local-based gang research is not a new phenomenon as demonstrated in a number of other studies over the past 10 years, such as those of Bjerregaard (2002), Curry, Decker, & Egley, (2002), Esbensen, Winfree, He, & Taylor (2001), Fleisher (2006), Papachristos (2006), Starbuck, Howell, and Lindquist (2001), and Valdez (2007).
Based on law enforcement reports, 85 to 90 percent of gang members are African American or Hispanic (Howell, 2000; Moore, 1978, 1999; Covey, et al., 1997; Vigil, 1988). However, the National Youth Gang Survey (2002; 2009) points out that minority gang membership in earlier law enforcement studies were likely overstated. Gang surveys showed that the race or ethnicity of gang members was tied to the size of the community and restricted to the specific locations of limited diversity (Howell, 2000; Klein, 1995; Spergel, 1995). Whites constituted around 30 percent of gang members in small cities and rural counties and around 10 percent of gang members in urban locations (Moore & Cook, 1999; National Youth Gang Center, 2009; Howell, Egley, & Gleason, 2002). As past researchers, and gang research in general, tended to oversample minority populations (Esbensen & Huizinga 1993; Fagan 1990; Krohn & Thornberry, 1993), the case studies on specific gangs or cities often excluded White youth from gang survey research. Consequently, the information obtained is limited to primarily African-American and Hispanic gangs (Esbensen & Winfree, 1998). Longitudinal studies funded by the Office of Juvenile Justice and Delinquency Prevention (OJJDP) in Denver, CO and Rochester, NY focused on large samples of racially and ethnically defined neighborhoods (Bjerregard & Smith, 1993; Esbensen & Huizinga, 1993; Krohn & Thornberry, 1993). These studies demonstrated that the configuration of a youth gang is reflected in the demographics of that community; gang members are White in predominantly White neighborhoods, African American in primarily African American residencies, and so forth (Esbensen & Lynskey, 2001, Howell, 2007). More recently, an effort has been made in gang research to be more comprehensive in the development of their sampling frame to ensure representative samples of the general population (Esbensen & Winfree, 1998; National Youth Gang Center, 2009).

Given the history of U.S. gangs, ignorance about gang involvement on any level is
irresponsible. The factors associated with gang involvement must be explored in the larger context of other factors known to be associated with gang membership. This study explored the various factors associated with gang involvement and academic readiness. The findings of this study demonstrate an association between race/ethnicity, clique membership, and academic readiness. Evidence provided by this study supports the influence of race/ethnicity as a “risk marker” - indicating the potential existence of other risk factors - not a risk factor or predictor of academic readiness. This distinction was thoroughly explored throughout this manuscript.

For this research study, student survey materials, as mandated by the school district, asked students about their current and past involvement in “cliques” with the word “gangs” beside it, and then asked for further detail about the involvement of their peers (e.g., Curry, Decker, & Egley, 2002; Martinez, Tost, Hilgert, & Woodard-Meyers, 2013; Naber, May, Decker, Minor, & Wells, 2006; Spergel, 1995). In this study, a street gang or “clique” is “any durable street oriented youth group whose involvement in illegal activity is part of its group identity” (Klein & Maxson, 2006, p. 4). This nominal definition applied to the current study is based on the consensus of the eurogang program of more than 100 American and European researchers and policy makers from more than a dozen nations (Klein & Maxson, 2006). The term “cliques,” as used in this manuscript, refers to youth gangs or street-based youth groups (Martinez et al., 2013).

**Risk Factors for Gang Membership**

Decker & Van Winkle (1996) describe the dynamics of joining a gang as consisting of both "pulls" and "pushes" for youth. The attractiveness of the gang is the “pull”; the socioeconomic and cultural forces are the “push” in the direction of gangs. The pull of gang membership can be the amplified prestige, status, and influence among friends provided by
being in a gang, while other noted attractive opportunities include excitement, the fast life, selling drugs, and making money (Howell, 2010; Pennell, Evans, Melton, & Hinson, 1994). The fundamental push of social, economic and cultural forces is satisfied by the general wellbeing and protection offered by gang membership (Decker & Van Winkle, 1996; Vigil, 2002).

Identifying youth with risk factors for gang membership is one way of foreseeing those who may become involved in gangs (National Youth Gang Center, 2009); often with varying results (Klein & Maxson, 2006; Martinez et al., 2013). The National Youth Gang Center, A Guide to Assessing Your Community's Youth Gang Problem, (2009) summarizes various studies that identified risk factors for youth gang membership using a number of research methodologies (including cross-sectional, longitudinal, and ethnographic/observational studies), the following (see Table 1) organizes risk factors by individual, family, school, community and peer domain. For a full review of the gang risk factors, see National Youth Gang Center, 2009. The collective body of research suggests that the more risk factors and/or the greater number of multiple risk factors experienced, the greater the chance of joining a gang (Esbensen, Peterson, Taylor, & Osgood, 2012; Howell, 2010; Howell & Egley, 2005; Wyrick & Howell, 2004).
### Table 1: Risk Factors for Gang Membership

<table>
<thead>
<tr>
<th>Individual</th>
<th>Physical violence or aggression</th>
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<tbody>
<tr>
<td>General delinquency involvement</td>
<td>Physical violence or aggression</td>
</tr>
<tr>
<td>Antisocial/delinquent beliefs</td>
<td>Violent victimization±</td>
</tr>
<tr>
<td>Early onset of aggression/violence</td>
<td>Mental health problem, or conduct disorders (disruptive, antisocial) †</td>
</tr>
<tr>
<td>Hyperactive (impulsive, attention problems)</td>
<td>Illegal gun ownership/carrying</td>
</tr>
<tr>
<td>Authority conflict (troublesome/dishonest/daring/stubborn/disruptive/conduct disorders)</td>
<td>Early dating/sexual activity/fatherhood</td>
</tr>
<tr>
<td>Early initiation of violent behavior</td>
<td>Antisocial or delinquent beliefs</td>
</tr>
<tr>
<td>Poor refusal skills</td>
<td>Alcohol/drug use</td>
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<tr>
<td>Substance use (especially marijuana and alcohol)</td>
<td>Life stressors‡</td>
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<tr>
<td></td>
<td>Makes excuses for delinquent behavior (neutralization)</td>
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<tr>
<td>Family</td>
<td></td>
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<tr>
<td>Broken home/changes in caretaker</td>
<td>Child maltreatment (abuse or neglect)</td>
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<tr>
<td>Poverty /low family socioeconomic status</td>
<td>Family transitions (change in parent figures)</td>
</tr>
<tr>
<td>Family history of problem behavior/criminal involvement</td>
<td>Sibling antisocial behavior</td>
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<tr>
<td>Delinquent/gang-related siblings</td>
<td>Poor parental supervision (control, monitoring, and child management)</td>
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<tr>
<td>Having a young mother</td>
<td>Family poverty</td>
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<tr>
<td>Low attachment to child</td>
<td>Parent pro-violent attitudes</td>
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<tr>
<td>Low parent education</td>
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<td></td>
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<tr>
<td>School</td>
<td>Poorly organized and functioning schools/inadequate school climate/negative labeling by teachers</td>
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<tr>
<td>Low achievement in elementary school</td>
<td>Low academic aspirations</td>
</tr>
<tr>
<td>Frequent truancy / absences / suspensions / expelled from school</td>
<td>Low attachment to teachers</td>
</tr>
<tr>
<td>Identified as learning disabled</td>
<td>Low parental college expectations for child</td>
</tr>
<tr>
<td>Low school attachment / bonding / motivation / commitment to school</td>
<td>Low math achievement test score (males)</td>
</tr>
<tr>
<td>Poor school attitude/motivation/ performance/school failure</td>
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<tr>
<td>Community</td>
<td></td>
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<tr>
<td>Residence in a disadvantaged or disorganized neighborhood</td>
<td>Low neighborhood attachment</td>
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<tr>
<td>Availability or perceived ready access to drugs</td>
<td>High-crime neighborhood</td>
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<tr>
<td>Feeling unsafe in the neighborhood</td>
<td>Availability of firearms</td>
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<tr>
<td></td>
<td>Neighborhood youth in trouble</td>
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<tr>
<td>Peer</td>
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<tr>
<td>Association with antisocial / aggressive / delinquent peers / high peer delinquency</td>
<td>Gang-involved peers/relatives</td>
</tr>
</tbody>
</table>

†Conduct disorder symptoms included bullying, fighting, lying, cruelty toward animals, attacking people, running away from home, fire setting, theft, truancy, and vandalism.
‡These consist of failing a course at school, being suspended or expelled from school, breaking up with a boyfriend/girlfriend, having a big fight or problem with a friend, or the death of someone close.
±Need for protection is a major reason gang members give when asked why they join.

School risk: Academic Achievement.

School-based risk factors such as poor school performance and poor school attachment are noted as primary predictors for eventual gang involvement. In the Rochester study (Thornberry, 1998), three school variables related to gang membership emerged as significant risk factors: (1) low expectations for success in school (both by parents and students), (2) low student commitment to school, and (3) low attachment to teachers. The Seattle gang project (Hill, et al., 1999; Kosterman, Hawkins, Hill, Abbott, Catalano, & Guo, 1996) discovered similar risk factors to those of Thornberry's (1998) analysis for school risk and gang membership. Hill, Howell, Hawkins, and Battin-Pearson (1999) identified the following as significant school risk factors: (1) low educational aspiration, (2) low commitment to school, (3) low school attachment, (4) high levels of antisocial behavior in school, (5) low achievement test scores, (6) the identity of being learning disabled, and (7) low grades.

Early academic failure is associated with delinquency and gang membership. Middle school students who joined gangs did not perform well in elementary school, had a weak attachment to teachers (Thornberry, Lizotte, Krohn, Smith, & Porter, 2003), and a low attachment to and involvement in school (Bjerregaard, & Smith, 1993; Hill et al., 1999; Le Blanc & Lanctot, 1998). Hemphill, Toumbourou, Herrenkohl, McMorris, and Catalano (2006), Huizinga and Henry (2008), Kaplan and Damphouse (1997), and Valencia (2010) found that negative conditions already within at-risk schools increased future delinquency, which also increased gang membership (Esbensen & Huizinga, 1993; Hill, et al., 1999; Thornberry, et al., 2003). Taking into consideration the “student engagement” (Appleton, 2008; Betts, Appleton, Reschly, Christenson, & Huebner, 2010) and student “connectedness” to schools and “school climate” (Gottfredson, G. D., Gottfredson, D. C., Payne, & Gottfredson, N. C., 2005; Resnick, Ireland, &
Borowsky, 2004), contemporary studies on school risk experiences are more sound than previous mixed findings. Some Latino gang theorists (Moore, 1978, 1998; Vigil, 1988, 2002) contend that minority youths are marginalized in U.S. society and particularly public schools, and gangs provide them a way to be accepted and fit in, a sense of control in their individuality. Consequently, for some youth, a gang is one answer to many questions about social and educational inequities associated with the natural growing pains of middle school adolescence.

**Hispanics, schooling, and gangs**

The term “Latino” is likely more acceptable, as "Hispanic" has evolved into a political term referring to Latino people as a separate population (Guadalupe, & Donato, 2010; Martinez, Unterriener, Aragon, & Kellerman, 2014). In the context of gangs, this wide-ranging grouping refers to organizations with cultural connections to Spanish-speaking countries (e.g., Cubans, El Salvadorians, indigenous Chicanos, Mexicans, South Americans, etc.) (Fleisher, 2006; Papachristos, 2006; Starbuck et al., 2001; Valdez, 2007). “La choleria” or “Los Cholos” in the community or barrio, are terms that refer to both females and males, almost always gang-affiliated, but often include those who are profiling the cholo appearance or sporting the gang styles, and are not associated with gangs (Moore, 1998; Vigil, 2002; Pyrooz, 2013; 2014).

Moore’s (1978) contextual and holistic view on Latino gangs places the barrio framework in the context of a larger social system (e.g., Chicano barrios’ persistence and influence, norms of barrios that follow men into prison) and provides a structure that fuels an ironic emancipation and persistent optimism within Chicano neighborhoods (Cammarota, 2008; Yosso & Garcia, 2007). Disposing of many of the same misleading stereotypes mentioned earlier, Moore (1978) and Vigil (1988) carefully examined the themes of the Latino experience, “internal colonialism,” “blaming the victim,” and “programming for failure” (e.g., Carter,
Significant gang involvement is related to certain negative outcomes (e.g., trouble in school and prison life) and is unique and important to their studies of Latino youth. Moore (1991; 1998) describes a dominant culture’s perceptions of Latino youth as (1) having an “ascribed deviance,” and (2) lacking skill or ability to manage “probably deviant” youth. The dominant culture’s authority over police, schools, and other organized youth services perpetuates the unscientific assumption that “ascribed deviance” is inherent among Latino youth, rather than a result of conflict between the goals and values of the Latino and dominant culture (Pyrooz, 2013; 2014).

Vigil’s research (1988; 1999, 2002) supports a framework of “multiple marginality” where the psychosocial effects of living as oppressed youth conflicts with cultural assimilation and discourages acculturation (Gorski, 2008; Massey, 2008; Villenas & Foley, 2010). Therefore, many Latino youth struggle in school and do their best to cope with their marginality, in which “The gang has taken on the responsibility of doing what family, school, and other social agencies have failed to do–provide mechanisms for development, establish age and sex norms of behavior, and define and structure outlets for friendship, human support, and the like” (Vigil 1988, p. 168).

Research Question

This study is designed to address the following research question: What is the relationship of clique/gang risk factors and clique/gang membership on 7th grade performance and academic readiness to the 8th grade? Having considered the risk factor domains, the present study employs a quantitative methodology and used demographic variables and the risk factors
of school, peer, community-neighborhood, and family, as well as gang (clique) membership to predict academic readiness for eighth grade students.

The present study contributes to the field in three ways: (1) provides a locally generated report to assist stakeholders (administrators, teachers, parents, students, and law enforcement) in identifying locally relevant risk factors of gang behavior; (2) emphasizes risk factors and gang membership as related to student academic readiness; and (3) substantiates risk factors for gang membership proliferation in those neighborhoods with no recently documented history of gangs. The purpose of the current study is to better understand the relationship of gang risk factors on seventh grade performance and academic readiness to the eighth grade.

Method

Participants

The target population of this study came from a suburban public middle school in a Southeastern state, metro-city area. The convenience sample was selected due to location, the school’s Title 1 status, and urban profile, and for its uniqueness of having gangs that are not predominantly intergenerational. Sampling middle school students for gang research is an established protocol. The sampling of such populations results in unique challenges for the researchers as following the study methodology is often contingent on approval from school administrators, cooperation from school teachers, and participation from selected students (Esbensen, Peterson, Taylor, Freng, Osgood, Carson, & Matsuda, 2011).

The sample consisted of 406 eighth grade student-participants from one middle school in a large, suburban school district (54.2% female, 42.6% male, 3.2% not responding). Students reported the following races/ethnicities: 40.1% Hispanic ($n = 163$), 33.0% African American ($n = 134$), 10.8% Asian/Pacific Islander ($n = 44$), 3.9% White ($n = 16$), and 7.9% other ($n = 32$). Of
the 406 students surveyed, 17 (4.2%) did not report a race/ethnicity. Of the total number of reporting students, 70.2% \((n = 285)\) indicated being eligible for free or reduced-price lunch.

The sample was drawn from the total grade level population of eighth grade students \((n = 502)\) in the middle school. At the time of the study 96 students were either absent, refused to participate or did not provide parental consent, thus reducing the sample to 406 students.

**Procedure**

Permission to survey all eighth-grade students was granted by the University Social Science Institutional Review Board (SSIRB) and the school district and county’s research departments. Data from the Student Survey used in this study was collected from one of twenty middle schools in a large Georgia suburban school district. In order to participate in the study, active parental informed consent, as well as student informed assent, was required. Home room teachers administered the survey to students over a period of thirty minutes in their general eighth grade home-room class, with one make-up session (for those absent but had a signed parent consent form) the next morning.

The survey was administered using a standardized protocol from the school district that included a short description of the research project. Students were allowed to ask questions about the study before and during the survey administration. Home room teachers provided scripted answers to student questions as a part of the standardized administration (See Decker et al., 2014; Esbensen et al., 2012; Esbensen et al., 2008; Unger, Gallaher, Palmer, Baezconde-Garbanati, Trinidad, Cen, & Johnson, 2004). In order to control for the student’s reading level, survey administrators read the standardized directions and then read each survey item aloud, allowing three to five seconds for students to record their responses.
Variables and Measures

A 42-item paper self-report student survey was designed to assess the following risk factor domains: School Risk (SR), Peer Risk (PR), Community-Neighborhood Risk (CNR) and Family Risk (FR). Basic demographic information, clique involvement, and items concerning Academic Readiness were also assessed. The survey was constructed based on a thorough review of the literature in the areas of the risk factors of Clique Membership. The items on the Student Survey were author-generated though adapted from current measures found in previous youth gang research (Howell & Egley, 2005; Howell, Egley, & Gleason, 2002; Spergel, 1995). The methodology and data utilized in this study is identical to that used in Martinez, Tost, Hilgert, and Woodard-Meyers (2013); however, the research question and analyses differ. The following sections will briefly outline the methodology and data specifications, and discuss the analyses based on this study’s research question.

Clique Membership. A single dichotomous item was used to assess if students “are a member of a clique now” (Clique Membership: yes = 1 and no = 0). The terms “gang,” “crew,” or a “posse,” were used in describing a “clique.”

Demographics. Gender, free/reduced lunch eligibility (i.e., poverty) and ethnicity were assessed as a means to account for basic demographic information. Gender was coded as either Male = 0 or Female = 1. Free/reduced lunch eligibility was coded as either Ineligible = 0 or Eligible = 1. For analysis purposes race/ethnicity was dummy coded into five different variables. Each of the reported races/ethnicities (Asian/Pacific Islander, Black, Hispanic, other & White) were coded such that 0 = not a member of the ethnic group, 1 = member of the ethnic group. For this study, the Asian/Pacific Islander, Black, other & White races/ethnicities are considered non-Hispanic.
School Risk. Five items were used to assess school risk. Respondents indicated the extent to which they agreed with statements like, “My teachers are there for me when I need them” and “Students here respect what I say” using a 4-point Likert scale (1 = NO! definitely not true and 4 = YES! definitely true). Responses were combined so that each student had an average score that could range from 1 to 4, with a larger number indicating less risk. School risk had a rather low internal consistency rating (Cronbach’s $\alpha = .60$). Means and standard deviations for each of the risk factor (and demographic) variables can be found in Table 2.

Peer Risk. Five items were used to assess risk associated with peer relationships. Respondents were instructed to think of their four best friends and how many of those four friends engaged in activities such as “sold illegal drugs” and had “been arrested” in the past year. Students responded using a 5-point scale (1 = None and 5 = four). Responses were averaged so that each student’s score had a range from 1 to 5 with a larger number indicating greater risk. Peer risk had an acceptable level of internal consistency (Cronbach’s $\alpha = .72$).

Community-Neighborhood Risk. Four items were used to assess community risk. Students responded to questions regarding their ability to access drugs, cigarettes, alcohol and a handgun using a 4-point Likert scale (1 = very hard and 4 very easy) with a larger number indicating greater risk. Five items were used to assess neighborhood risk. Students responded to statements describing their neighborhood as having “lots of graffiti” and “fights” using a 4-point Likert scale (1 = NO! definitely not true and 4 = YES! definitely true) with a larger number indicating greater risk. One of the five items was reverse-scored (“I feel safe in my neighborhood”). Responses for community risk and neighborhood risk (nine items total) were averaged together to create one factor (Community-Neighborhood) so that each student had an
average score that could range from 1 to 4, a larger number indicating greater risk. Community-Neighborhood Risk had an acceptable level of internal consistency (Cronbach’s $\alpha = .78$).

**Family Risk.** Four items were used to assess family risk. Students responded to statements like “When I have a personal problem, my family / guardian(s) are willing to help me” and “When I am not at home, my family/guardian(s) know where I am and whom I am with” using a 4-point Likert scale ($1 = never or almost never$ and $4 = all the time$). Responses were combined so that each student had an average score that could range from 1 – 4 with a larger number indicating less risk. Family risk had an acceptable level of internal consistency (Cronbach’s $\alpha = .74$).

**Academic Readiness.** Six items were used to assess student Academic Readiness. The first item assessed students’ GPA with $< 1.0 = 1$, $1.0-1.9 = 2$, $2.0-2.9 = 3$, $3.0-3.49 = 4$, and $3.5 – 4.0 = 5$. The next four items included the District Criterion-Referenced Competency Tests (CRCT) Performance Level ($1 = Did Not Pass$, $2 = Passed$, $3 = Exceeded$) for English Language Arts, Mathematics, Reading, and Science. The sixth item asked students to report on their average Social Studies course percentage across the two semesters of 2007-08 ($1 = less than 70\%$, $2 = \geq 70\%$). The six items were averaged to create a summary score. Students were asked to self-report for each of the mentioned items. Students self-report responses were matched with student data provided by the school to validate student responses. Upon comparison, it was found that student responses were valid.
### Table 2

**Inter-Correlation of Predictor Variables and Academic Readiness with Means and Standard Deviations**

<table>
<thead>
<tr>
<th></th>
<th>AR</th>
<th>Gender</th>
<th>Poverty</th>
<th>Black</th>
<th>Hispanic</th>
<th>School</th>
<th>Peer</th>
<th>Comm.</th>
<th>Family</th>
<th>Clique</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Readiness</td>
<td>1</td>
<td>.001</td>
<td>-.037</td>
<td>.129*</td>
<td>-.294**</td>
<td>.063</td>
<td>.160**</td>
<td>.108*</td>
<td>.115*</td>
<td>-.115*</td>
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<tr>
<td>Peer Risk</td>
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<td>Comm-Neigh Risk</td>
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<td>Family Risk</td>
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<tr>
<td>Current Clique Member</td>
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*Significant at the .05 level, ** significant at the .01 level*
Research Design & Analysis

To identify the factors associated with Academic Readiness, bivariate correlations and stepwise multiple regression were employed. First, the relationship between all predictor variables and Academic Readiness were examined using bivariate correlations. Next, in order to analyze the interaction of the predictor variables and assess their impact on the criterion variable, a regression model was created using the stepwise method. The stepwise method was employed to exclude those variables that lost their predictive validity when entered into the regression model and to ensure that the complex inter-correlations identified in the model were not spurious. Only those predictor variables found to be significantly correlated with Academic Readiness were included in the regression model. The regression analysis identified two models which will be reported and discussed. Standardized Beta Values ($\beta$) indicate the direction and degree of relationship each predictor variable has to the criterion variable. The data were analyzed using Statistical Package for the Social Sciences (SPSS) version 20.

Prior to analysis, the data was assessed for univariate and multivariate outliers. Univariate outliers were assessed by examining the standardized scores for each variable, using three standard deviation units as a cutoff. No outliers were identified for any of the predictor variables. The criterion variable of Academic Readiness had three scores that exceeded the cutoff which were eliminated from the dataset. Multivariate outliers were identified by calculating Mahalanobis distance when running the stepwise regression model. Using a chi-square table, we found the critical value of chi-square at $p < .001$ level with $df = 5$ to be 20.515. Using this cutoff, there were no scores that were found to exceed the critical value.

Additionally, each continuous variable (Peer Risk, Community-Neighborhood Risk, Family risk and Academic Readiness) was assessed in terms of being normally distributed. The
values of the measures of central tendency for the continuous variables were similar, indicating that the distributions approximated normality.

Assessments of multicollinearity of predictor variables in the regression models were also conducted. Tolerance values indicated no problems with multicollinearity as all the values associated with the variables included in the model were .90 or greater.

Results

What is the relationship of clique/gang risk factors and clique/gang membership on 7th grade performance and academic readiness to the 8th grade? To answer the question as to which variables may be associated with Academic Readiness, a series of correlation analyses was first conducted to examine the relationships among of demographic variables (gender, poverty and the dummy coded race/ethnicity variables), risk factors (peer, school, community/neighborhood and family), Clique Membership (whether or not the students reported being a current member of a clique) in predicting Academic Readiness (see Table 1). Due to low sample sizes the dummy coded race/ethnicity variables of Asian/Pacific Island \( n = 44 \), White \( n = 16 \) and other \( n = 32 \) were not included in the analysis.

Of the variables included in the correlation analysis, Black, Peer Risk, and Family Risk were significantly \( p \leq .05 \) positively correlated with Academic Readiness while the variables of Hispanic and Clique Membership were both significantly \( p \leq .05 \) negatively correlated with Academic Readiness. Using a Bonferroni adjustment to account for the number of correlations conducted, the corrected alpha level becomes .001. In an effort to ensure that the Bonferroni correction is not too conservative, resulting in false negatives, the more liberal alpha level of .05 was employed as a cutoff.
Results from the correlation analyses found that being Black was positively associated with academic readiness, that is, Blacks were more likely to report higher levels of Academic Readiness than non-Blacks. Counter intuitively, higher levels of Peer Risk and Community-Neighborhood Risk were associated with higher levels of Academic Readiness. However, lower levels of Family Risk (high family support) were associated with higher levels of Academic Readiness. Additionally, Hispanic and Clique Membership were both significantly negatively correlated with Academic Readiness. Hispanics (as opposed to non-Hispanics) and Clique members (as opposed to non-Clique members) were both more likely to report lower levels of Academic Readiness.

Guided by the correlation analysis, stepwise multiple regression was conducted in which the six variables found to be significantly correlated with Academic Readiness (Black, Hispanic, Peer Risk, Community-Neighborhood Risk, Family Support, and Clique Membership) were used as predictor variables. This analysis produced two different regression models, each of which will be discussed (see Table 3).

The first model included the variable Hispanic only (excluding Peer Risk, Black, Family Support, Community-Neighborhood Risk, and Clique Membership) and was found to be significant, \( R = .27, R^2 = .08 \) \( F(1, 331) = 26.89, p < .001 \). Findings suggest a moderate relationship between Hispanic (\( \beta = -.247 \)) and Academic Readiness explaining approximately 8% of the variability in Academic Readiness (see Table 4).

The second model included the variables Hispanic and Clique Membership (excluding Peer Risk, Black, Family Support, and Community-Neighborhood Risk) and was found to be significant, \( R = .31, R^2 = .10 \) \( F(2, 330) = 17.39, p < .001 \). Findings suggest a moderate relationship between the two predictor variables and Academic Readiness explaining
approximately 10% of the variability in Academic Readiness. Of the two predictor variables included in the model, both Hispanic ($\beta = -.288$) and Clique Membership ($\beta = -.143$) were found to be significant predictors.
Table 3

Regression Model Summaries

<table>
<thead>
<tr>
<th>Regression Models</th>
<th>R</th>
<th>$R^2$</th>
<th>$R^2_{adj}$</th>
<th>$\Delta R^2$</th>
<th>$F_{chg}$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1 (Hispanic only)</td>
<td>.27</td>
<td>.08</td>
<td>.07</td>
<td>.07</td>
<td>26.89</td>
<td>.000**</td>
</tr>
<tr>
<td>Model 2 (Hispanic &amp; Clique member)</td>
<td>.31</td>
<td>.10</td>
<td>.09</td>
<td>.02</td>
<td>7.38</td>
<td>.007**</td>
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</table>

*Significant at the .05 level, ** significant at the .01 level

Table 4

Variable Coefficients by Model

<table>
<thead>
<tr>
<th>Variables Included in Model 1</th>
<th>B</th>
<th>$\beta$</th>
<th>t</th>
<th>p</th>
<th>Bivariate r</th>
<th>Partial r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>-.196</td>
<td>-.274</td>
<td>-5.19</td>
<td>.000**</td>
<td>-.274</td>
<td>-.274</td>
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</table>

<table>
<thead>
<tr>
<th>Variables Included in Model 2</th>
<th>B</th>
<th>$\beta$</th>
<th>t</th>
<th>p</th>
<th>Bivariate r</th>
<th>Partial r</th>
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</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>-.206</td>
<td>-.288</td>
<td>-5.48</td>
<td>.000**</td>
<td>-.274</td>
<td>-.289</td>
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<tr>
<td>Clique Membership</td>
<td>-.135</td>
<td>-.143</td>
<td>-2.72</td>
<td>.007**</td>
<td>-.115</td>
<td>-.148</td>
</tr>
</tbody>
</table>

*Significant at the .05 level, ** significant at the .01 level
Of interest is our ability to predict student’s Academic Readiness by way of the four demographic and five risk factor variables. Results were modest at best in that only 8 – 10 percent of the variation in academic readiness was accounted for by the limited number of gang and demographic survey items. Approximately 90 percent of the variance was unaccounted for by other factors not brought into question. These results speak to the myriad of variables that need to be considered when examining the impact and effect of gang association. Nevertheless, being able to explain 10 percent can provide meaning in the design of preventative measures and help to guide future research endeavors.

Discussion

The current study based on a sample (N = 406) of eighth grade students was designed to assess the relationship of clique / gang risk factors and clique / gang membership on 7th grade performance and academic readiness to the 8th grade. Student data provided by the school and county in this study matched the county and state’s student profiles. Of interest is the Hispanic ethnicity of the majority of the students in the sample (40.0% Hispanic). The stepwise regression analysis revealed a significant relationship between ethnicity (being Hispanic) and clique membership on academic readiness. In this study, the examination of the relationship between gang risk factors, demographic variables, and academic readiness revealed that participants who classified themselves as Hispanic and/or as members of a clique were more likely to have lower academic readiness scores than non-Hispanic and/or non-clique members.

The effect of being a gang member on academic achievement is intuitive, as gang risk factor research indicates that gang youth are less committed to school than nongang youth (See Decker & Van Winkle, 1996; Bjerregard & Smith, 1993; Esbensen & Deschenes, 1998; Hill et al., 1999; Maxson, Whitlock, & Klein, 1998). Other studies that examine adolescents’ cultures
and ethnic backgrounds also demonstrate the relationship between education readiness (Carter, et. al., 2013; Gorski, 2013) and gang association (Campbell, 1992; Fleisher, 1998; Howell & Lynch, 2000; Naber, et al., 2006).

This study finds being Hispanic as a risk marker, a proxy for other proven risk factors – low performance in school, living in poverty, and social disorganization (e.g., Cammarota, 2008; Klein & Maxson, 2006; Moore & Cook, 1999; Yosso & Garcia, 2007), rather than a sole risk factor. The risk marker explanation is important for several reasons. First, a risk marker works against a common view of traditional gangs as racially and ethnically segregated (Miller, 1992), by providing a less simplistic, yet more accurate explanation. Evidence indicates that one-third of all youth gangs have a significant mixture of racial and ethnic groups (Moore & Cooke, 1999). Years of research have indicated that the commonly held view of racially segregated gangs is incorrect (Klein & Maxson, 2006; Decker et al, 2013). Second, it is important to recognize that a gang member’s race or ethnicity is restricted to and in reflection of the demographics of that community (Howell, 2000; National Youth Gang Center, 2002, 2009) as is the case in the current study in which the sample consisted of eight grade students reporting 40.0% Hispanic.

Race/ethnicity and insufficient academic readiness have long been considered education risk factors for Latino youth (Massey, 2008; Moore, 1978, 1998; Vigil, 1988; 2002; Villenas & Foley, 2010) and have been included as gang risk factors in other gang membership studies (Klein & Maxson, 2006). Therefore, the authors of this study concur that race/ethnicity alone is not an accurate predictor of academic failure. Race/ethnicity is more likely a risk marker rather than a proven risk factor and not inherently causal by nature. Race/ethnicity, as a socially constructed concept, is founded fundamentally on social, political, and educational differences.
(Howell, 2000; Howell & Egley, 2005, Valencia, 2010). The results of this study are further evidence that the possible relationship concerning race/ethnicity and academics is not an achievement gap, but an “opportunity gap” (Cammarota, 2008; Carter, et al., 2013; Engel, 2009; Gorski, 2013; Sperling, 2007; Yosso & Garcia, 2007).

Historically, middle school students who joined gangs did not perform well in elementary school, had a weak attachment to teachers (Thornberry et al., 2003), and a low attachment to and involvement in school (Bjerregaard, & Smith, 1993; Hill et al., 1999; Howell & Egley, 2005; Le Blanc & Lanctot, 1998). In concurrence with Hemphill, Toumborou, Herrenkohl, McMorris (2006), and Catalano (2006), Huizinga and Henry (2008), Kaplan and Damphouse (1997), and Valencia (2010), this study identifies the negative conditions already present within the school structure as causal variables which may increase gang membership (Esbensen & Huizinga, 1993; Hill, et al., 1999; Thornberry, et al., 2003). The importance of “student engagement” (Appleton, 2008; Betts, et al., 2010) and student “connectedness” to schools and “school climate” (Gottfredson, et al., 2005; Resnick, et al., 2004), is the argument of Latino gang theorists (Moore, 1978, 1998; Vigil, 1988, 2002) contending that Latino and nondominant youths are often marginalized in school settings. A gang is one answer to many questions about social, political, and educational inequities associated with the natural growing pains of middle school adolescence (Cammarota, 2008; Yosso & Garcia, 2007).

Given the shifts in population demographics in the United States and the increased numbers of Latino people represented in communities and schools across this nation, the demand for further research on variables associated with Latino youth and schooling is germane (Hirschman & Massey, 2008; Redeauz, 2011; Villenas & Foley, 2010). A closer examination of the conditions and quality of living for Latino youth and their families reveals an environ of
increased anxiety. The fear that Latino youth experience is not unrealistic, given the hostile climate created by policy, law and the social, cultural rhetoric has been used to perpetuate myths as truths (Cammarota, 2008; Conchas & Vigil, 2010; Hawley & Nieto, 2010; Decker et al, 2013; Martínez et al., 2014; Massey, 2008; Moore, 1998; Vigil, 1999; 2002). Contrary to societal mythology, Latino parents and youth care deeply about education and academic achievement (San Miguel, Jr. & Donato, 2010; Howell, 2000; Sperling, 2007; Swalwell, 2012; Villenas & Foley, 2010). The academic situation that these families and students face is a substantial ill for which there is not an easy explanation or a sole single approach for a cure. Thus, a pre and post-intervention measure of programmatic areas may better assess positive changes in Latino academic performance associated with implementing social and academic structural changes, which could then be replicated (Cammarota, 2008; Conchas & Vigil, 2010; Decker et al, 2013; Urrieta Jr. & Martínez, 2011; Zarate & Conchas, 2010). Spergel (1995) summarizes this well:

Contemporary youth gangs are located primarily in lower-class, slum, ghetto, barrio, or working-class changing communities, but it is not clear that either class, poverty, culture, race or ethnicity, or social change per se primarily accounts for gang problems. (p. 60)

The current article highlights the need for continued research in various school settings to account for differences across locality, school structure, community composition, race/ethnicity, and intersectionality, in that no person has a single, easily stated identity (Crenshaw, 1991; Delgado & Stefancic, 2001; Hill Collins, 2000). Until sufficient research across varied factors exists, researchers cannot begin to make-accurate generalizations about gang or clique membership and its association with race/ethnicity (Esbensen & Winfree, 1998) and with school achievement (Conchas & Vigil, 2010; Urrieta Jr. & Martínez, 2011; Zarate & Conchas, 2010).
In congruence with previous studies, the current study supports the tenant that the nature, process, and development of gang membership is not easily explainable (Decker et al, 2013). While researchers have attempted to minimize risk factors associated with gang membership for middle school and elementary youth in recent decades, additional studies on middle school students are needed to obtain and utilize the often ignored perspectives of all youth. Although the participants for this study were all eighth grade students, in one school and neighborhood, the descriptions of the roles of being Hispanic and gang membership with low academic readiness are a part of the broad scope of gang literature. The authors recommend that more comprehensive and definitive research be conducted to better understand what, at times, are counterintuitive findings (Decker et al, 2013; Klein & Maxson, 2006). Survey data gathered at multiple times, from differing settings (other than a home room survey administration) and through different organizations might offer new insights. The continued need for more gang surveys of the general adolescent population will help clarify the extent of gang association among different racial and ethnic groups (e.g., Esbensen & Winfree, 1998). Vigil (1988) summarizes the complex factors that make the gang experience uniform, particularly for Latino youth and their schooling, and potentially for any eighth grader joining a gang:

A breakdown in social institutions, especially the family and school; a first- and second-generational conflict within each ethnic group, which creates loyalty discord and identity confusions; and a noted predisposition among youth to gravitate toward street peers for sources of social associations and personal fulfillment (p. 4).

It is important to note that the implications of this study’s findings are not limited to researchers. Teachers, parents, principals, school board members and other key stakeholders
(e.g., community leaders, program providers, and juvenile justice agents) may also respond to the study’s findings by un-educating and re-educating themselves about the factors associated with gang involvement and academic achievement. These key stakeholders acknowledgement of factors such as culture and ethnicity related to gang involvement and academic readiness and as such prevention and intervention strategies will help take these factors into account. A non-colorblind approach must be developed to comprehensively address the various covariate factors (e.g., culture and ethnicity) that are associated with gang involvement and academic achievement.

Limitations

School researchers maintain that too many variables exist in the educational setting to consider them all (Betts et al., 2010; Gottfredson et al., 2005; Hughes & North, 2012; Resnick et al., 2004). One of this study’s limitations related to “school effect” (too many immeasurable variables within the school), and district size. The current study was conducted in one public middle school with only eighth grade students. The group of students used in this study represents only a small fraction of students in the school, district and surrounding counties. Consequently, it will be difficult to generalize the findings outside of the sample used in this study.

Aside from “school effect,” additional limitations of this study include validity issues associated with survey items and administrative procedures. In an effort to minimize validity issues associated with survey item development, the student survey was based on a thorough review of the gang risk factors literature and was adapted from current measures found in previous youth gang research. Yet, as with the development of many survey instruments, item requirements imposed by the school district may have contributed to validity issues. Two such
school district requirements may have limited the findings of this study. First, as directed by the school district, the researchers were not permitted to ask students about Individual Risk factors. In order to provide a complete picture of the risk factor domains, Individual Risk would have been included alongside other relevant predictor variables.

Second, as previously mentioned the use of the word “clique” along with the word “gang” in this study was unavoidable and may have influenced students’ responses about gang membership. It is not unusual for schools to deny or avoid acknowledging having gang problems to the public or recognize that gangs are a problem within the school (Gottfredson & Gottfredson, 2001; Huff, 1998; Maxson, 1998). Therefore, it is possible that the school district in which data were collected did not allow students to be asked solely about “gang” membership for this study because of unwanted public attention or exposure. For research purposes, using the word “cliques” with the word “gang” enabled the researchers to still address the concern and move forward with the study. Use of the actual 42-item survey by other researchers is recommended and would help address and strengthen the survey’s validity.

Another limitation of the present study pertains to administrative procedures. Participants completed the survey during a homeroom class. Home-room teachers informed students that survey answers would be given to school administrators in order to improve their school experience. While classroom teachers encouraged students to respond truthfully, students may not have completed the survey honestly, despite their guaranteed anonymity. Additionally, some students may have lacked the motivation to carefully consider the survey items and respond in a manner that reflected their actual perceptions and behaviors. Finally, administrative procedures regarding attendance, may discount students that were truant, suspended, and / or
expelled from school; whose absence then biases the estimates in the analyses of this sample of eighth graders.

Conclusion

The current work speaks to the continued need for a multi-faceted approach to gang association and membership, acknowledging the errors in opting for one-size-fits-all solutions (Decker et al, 2013). Klein (1995) emphasized the need for collaboration in an effort to ameliorate the youth gang problems:

Street gangs are by-products of partially incapacitated communities. Until we dedicate the state and federal resources necessary to alter these community structures, gangs will continue to emerge despite value transformation, suppression, or other community efforts. I'm talking about the most obvious resources—jobs, better schools, social services, health programs, family support, training in community organization skills, and support for resident empowerment. That's easy to say but obviously not easy to do (p. 153).

The findings from the current research investigating the relationship between gang risk factors, gang membership, and academic readiness, indicate the need for further examination. Current findings are in agreement with much of the gang literature (Decker et al, 2013; Klein & Maxson, 2006) and suggest the need for continual review with particular emphasis placed on the interplay of race/ethnicity and academics (Levitt & Venkatesh, 2001; Pyrooz, 2013; Thornberry et al., 2003). The youth surveyed in this study indicated limited access to resources and weakened social controls. Nonetheless, the majority of the students surveyed avoided gang life (e.g., Fagan, 1990). Of need is further identification of the pushes and pulls that move youth toward
and away from gang membership and, as well, that which helps youth achieve academically (Pyrooz, 2014). While such work is and will be challenging, the rewards promise to be great.

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