

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

PREVENTATIVE MEASURES RELATED TO YOUTH GANG INVOLVEMENT: A
META ANALYSIS

A thesis submitted in partial fulfillment of the requirements

For the Degree of Masters of Science in Counseling,

School Psychology

By

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May 2012

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ABSTRACT

PREVENTATIVE FACTORS FOR YOUTH GANG INVOLVEMENT: A META ANALYSIS

By

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Examining recent trends across the United States, there is an overall increase in gang activity in schools throughout the country. Many gang prevention programs have been implemented, yet only a few have rigorously been evaluated. This study seeks to determine which prevention programs actually decrease the chances of youth members from joining gangs. Research-based services and programs will be the most successful in addressing the needs of the community, family and school with regard to gang prevention and youth delinquency. A synthesis of research data on prevention programs related to youth gang involvement will be reviewed. A total of 10 studies met the eligibility criteria for this meta-analysis. The purpose of the meta-analysis was to assess which prevention-related factors within five domains (i.e., family, school, peer, structured programming and community) have statistical evidence for deterring youth from gang membership. Multi-level community based prevention strategies had a large effect in programming in five studies. Four general prevention strategies revealed large effect sizes, within the school, structure programming and multi-level community based strategies. An analysis of the meta-analysis is provided with the assumption that research based prevention programs will be used in the future to stop at-risk youth members from joining gangs.

Chapter I

Introduction

In February 2007, The At-Risk Youth Protection Act of 2007 (H.R. 1184) was introduced to congress. The purpose of the bill was to reduce youth and gang violence by mandating that students at-risk of education failure participate in at least 100 hours of community service each year. Funding would be provided to alternative schools and programs to implement this community service requirement as well as training in conflict resolution (LAUSD, 2007). Current data suggest that school and community based collaboration efforts are more likely to be successful when they are integrated in an effective and coordinated way (Adelman, 1996). Recognizing the value of these partnerships, the bill discusses how local schools and businesses would work in collaboration to sponsor students involved in the program to prevent gang violence. The idea was that funding prevention programs would lead to an increase in academic achievement, would incentivized student participation within the school and within their communities, would increase productive activities and would decrease negative behaviors. The belief was that the community service opportunities and conflict resolution training would increase overall school performance and decrease negative behaviors (LAUSD, 2007).

Although this was a great, well-thought out idea, like many of its kind, it never became law. Time and again, fundamental restructuring considerations related to reforming and integrating schools and community resources remain ignored by law-makers (Adelman, 1996). This is particularly true for when such programs involve inclusion of at-risk youth gang members. One reason is because many schools and

community leaders are unaware of the gang problems. In a national study, only 18 percent of principals in schools acknowledged that gangs were in fact an issue at their schools. Moreover, these principals were representing 10 percent of schools with the greatest student gang participation rates (Howell, 2010). Despite this denial, our society has and continues to be profoundly affected by the negative influence of gangs. Gangs no longer consist of teenagers and young adults from the “ghettos” and urban areas. Gang members are being recruited in every area, from suburban and rural communities, and even at the elementary school age (Mayer, 2010). Youth gang members are gaining influence in a variety of contexts, including schools, inner-city neighborhoods, American Indian reservations, residential centers and prisons (Spergel & Grossman, 1997).

Another reason this bill (and others like it) did not become legislation is because of the implementation costs. It is understandable that public would have immediate resistance to the “recommendations for a national strategy” that include but are not limited to: early educational prevention services, increased mental health services, medical services, family counseling programs, rehabilitative programs for offenders instead of incarceration, and drug and alcohol abuse rehabilitation programs. These well meaning programs are inevitably associated with huge costs on taxpayers (Chatterjee, 2006).

Despite these potential costs, the reality is that gang violence already accounts for a large percentage of the money spent by United States tax payers as a result of these (possible preventable) violent crimes. In 2004, for example, the overall cost of violent crimes was estimated at \$655 billion for United States tax payers (Howell, 2006). Moreover, it is gang members who actually make up two thirds of the population of

lasting violent offenders (Thornberry, Huizinga, & Loweber, 1998). In examining one adolescent criminal career that spans ten years, taxpayers can expect to pay approximately 1.7 to 2.3 million dollars. Keep in mind, this is the financial cost for only one adolescent whose career spans 10 years. The costs associated for those individual's whose criminal careers span 20, or 30, or more years can cost taxpayers more than 10 million dollars for just one career criminal. Whether or not they are aware, the community also pays the enormous financial burden that gangs have through the justice system and health care system (Chaterjee, 2006). Beyond the dollar sign figures, gang membership has short-term consequences such as gang members typically being arrested within six months after joining a gang (Battin et al., 1998; Esbensen & Huizinga, 1993; Huff, 1998; Thornberry et al., 1993). Looking at long-term consequences, gang membership can lead to arrests, incarceration, injury, violent death, and decreased chances to transition to an adult life that includes "legitimate" employment (Chaterjee, 2006). The majority of the 1,000 homicides reported in Los Angeles in 2004 were the result of gangs. The effects of being in a gang last forever. (Esbensen & Huizinga, 1993; Thornberry et al., 1993). In reality, the impact of the gangs extends beyond a crime issue - it is a social, financial, and public health issue (Shropshire & McFarquhar, 2002).

The rise in gangs over the past fifty years has been devastating for communities throughout America. The number of gangs and reported gang problems in the United States has increased in the last several years (Howell, 2010). Gangs are comprised of youth from all 50 states and the 2000 National Youth Gang Survey (2000) estimated that there were close to 25,000 gangs and 772,500 gang members in the United States (Egley & Arjunan, 2002; Huff, 1998). Despite the many uncertainties relating to this increase,

what is certain is that this gang membership and violence has risen dramatically in schools over the past few decades. Research by Ramsey et al. (2003) has demonstrated there is a link between school violence and gang activity. Not surprisingly, gangs make many students feel unsafe at school and studies have shown that as many as 40,000 students across the United States admitted to being “threatened or attacked by a gang or by a student identified as a gang member” at school. Policy departments are reacting as well, and 84% of large police departments now have gang units (Reaves & Hickman, 2002). In some instances, large cities like Los Angeles have passed special laws that allow law enforcement officers to question and even arrest members of particularly troublesome gangs without probable cause.

Gang members engage in more mild, non-violent crimes such as graffiti, burglary, theft to more serious and violent crimes such as arson, assault, drug trafficking, home invasion, intimidation, rape, robbery, shooting and homicide. Gang activity also includes fraud, pirating and selling movies and music, identity theft, witness identification, among their other criminal activity (Chatterjee, 2006). Sheldon, Tracy, and Brown (2004) cited Jankowski’s study of 37 gangs discussing their illegal activities that involved drugs, stolen guns, auto parts, and electronic equipment, extortion, and protecting prostitutes and pimps. Violence plays a key role in gangs because it is used to; cause fear among the gang’s own members, cause fear among rival gangs, prevent any gang code violations, punish people who may have been seemed disrespectful, protect territory, or compete for a female or for punishment purposes, etc. (Sheldon, Tracy, & Brown, 2004).

Currently there are demographic factors and reasoning for adolescents to be attracted to gangs. Race, ethnic identity, current substance use, and risk-seeking

tendencies are found to be important predictors of gang involvement (Ryan, Miller-Loessi, & Nieri, 2007). Howell (2010) highlights that the National Youth Gang Service (NYGS) study showed that 50% of all gang members are Latino, 32% of all gang members are African American, and 11% are Caucasian. A different study by the NYGS in 1997 found a sample population with a significant gang presence, with 11% of the population being male gang members and 6% of the sample being female gang members. Even more, while some girls may not be considered “true” gang members they are still “distinctly integrated” into the gangs and can take part in lawbreaking behavior (Howell, 2010). Young women are more likely to associate in gang activity, including delinquent activities, if their friends or boyfriends are members.

Gang membership typically begins at a young age for youth, and the effects are detrimental for the youth and the community. Gangs are recruiting youths at a younger age and the numbers of youth involved in gangs has increased as well (Ramsey, Rust, & Sobel, 2003). Gang members are being recruited in their early elementary school years (Mayer & Ybarra, 2006). Examining 9,000 adolescents in the United States that represented a sample of the U.S. population discovered that 8% had been gang members at some point between twelve and seventeen years old. Formation theories have found that some youth create “starter gangs” where they may participate in “minor delinquent behaviors.” The gang initiation process can take anywhere from six months to two years (Howell, 2010). Starter gangs introduce the members to the attitudes, rituals, and symbols associated with the specific gangs. Gang affiliation is associated with increased violent crime rates and contributes to violence and victimization in the schools (Ryan, Miller-Loessi, & Nieri, 2007).

As Howell (2010) explains, most adolescents who want to join a gang do so voluntarily, despite common misperceptions that they are forced to join gangs. Studies have shown that gang members are not necessarily different from nonmembers. However, when individuals are part of a gang, the gang promotes their involvement in delinquent behaviors (Thornberry et al., 2004). Some adolescents are nonetheless drawn to gangs because the gangs offer safety, fun, respect, money, and social interactions (Howell, 2010). In short, youth are inclined to join gangs because they offer friends and activities. Males and females are affected. Women become involved in gangs for pro-social reasons and can even take part in robbery, shoplifting, drug and weapon trafficking, prostitution, and more violent crime, while men are more inclined to participate in drug dealing, fighting, and more violent crime (Ramsey, Rust, & Sobel, 2003).

There are known risk-factors associated with youth who join gangs. Howell (2010) describes that these adolescents are more likely to live in unsafe areas where the youth tend to be in trouble. For example, young immigrants coming to America may struggle with financial, language and cultural struggles, but gang membership offers them access to a community that may be lacking within the schools and even at home. Moreover, at-risk youth gang members tend to have engaged in delinquent behaviors, are aggressive, experience numerous transitions, have difficulties related to school, and spend time with peers who are associated with gangs. For example, some theories observed that the adolescents who get in trouble and are the most rebellious are more likely to connect with the gang lifestyle because they are frequently excluded from school (Howell, 2010).

Research notes that some “common reasons” youth are joining gangs relate to

one's basic needs for: "Real opportunities for a better life-style; love, companionship and belonging; recognition, self-worth and acceptance; power, status and excitement; structure, opportunities and discipline; and physical safety and protection" (Chatterjee, 2006). Typically, youth have access to family, school, neighborhood and community that will fulfill these needs, however, many of those at-risk for gangs do not.

Statement of the Problem

Preventative measures are critical, especially in the educational setting. With effective prevention strategies, schools can give students what they were designed to provide for the youth: a safe environment for learning, succeeding, and providing skills crucial to become contributing members of society (Ramsey et al, 2003). The factors that correlate with delinquency also correlate with school failure, diminished physical health, abuse, teen pregnancy, drug use and alcohol use. Potential gang members and serious and violent adolescent offenders share many of the same risk factors, such as association with delinquent peers, drug and alcohol use, school problems and family problems. Based on research, the progression from conduct problems, to gang membership, to serious and violent offenses is evident (Howell, 2010). About 25 to 30 percent of disruptive children are at risk of becoming child delinquents, and about one-third of all child delinquents later become serious, violent, and chronic offenders. The goal is to find secondary prevention programs that help youth in schools who have exhibited early signs of problem behavior, with high risk of potential gang activity. They are the candidates for intervention because they can be targeted before they actually join a gang with effective alternative support systems that Howell describes are "socially rewarding and healthy" with "accessible social opportunities (2010, p.12)." More financial support

needs to be allocated toward preventative measures to stop the escalation before it's too dangerous and expensive.

In the past 25 years, the relationships youth have with their families and with other significant adults in the educational setting are consistently recognized as key factors in predicting positive and negative outcomes in adolescents (Ryan et al., 2007) discuss how as students get older, their social world becomes broader and they are exposed to larger educational environments. Constant contact with teachers, counselors, school psychologists, coaches and various specialists can be critical components to success in school and positive life decisions. In fact, children from low socioeconomic status families are even more influenced by school personnel than more privileged youth (Ryan, Miller-Loessi, & Nieri, 2007). Moreover, in poor neighborhoods, schools serve a critical role because churches and other community agencies are less likely to provide intervention and prevention services (Howell, 2010).

There is known information regarding the youth at-risk for joining gangs. Examining risk factors for juvenile delinquents is also helpful for when determining at-risk factors for joining gangs because a majority of youth gang members committed delinquent acts prior to joining the gang. Protective factors that decrease the likelihood of adolescents joining gangs have also been statistically studied. There are also high-risk areas of large cities that put youth at risk (Howell, 2010). Gangs represent “a dependent variable- a symptom of more fundamental, causally prior independent variables that have numerous dysfunctional consequences” (Huff, 2002). With this information, students specifically needing preventative measures can be identified and targeted effectively. The goal of this study is to assess multiple gang prevention and intervention programs

and analyze if their implementation has been successful to the neighborhoods and communities in which they have been implemented. Evidence based research can provide analysis of the best tools to ameliorate the gang problem, and for the most appropriate populations. Schools have the ability to play a critical role in implementing these effective prevention programs, especially since children are mandated to attend school. Early identification of students who are at-risk for joining a youth gang can help school counselors, school psychologists, educators, and administrators appropriately recommend students for appropriate programs.

Interestingly, gang membership does not cause increased dropout rates. In fact, gang members report recruitment as a primary incentive for staying in school (Boyle, 1992). In a survey done in 2008, 241 teachers were asked: “What do you believe is the largest threat to school safety in your school?” and “gangs” was the second most common answer (NESRI, 2008). As a result, many students fear coming to school because they are concerned about crime not only in their neighborhood but at their schools. In fact, a study from the OJJDP found that 20% of African American and Hispanic teens shared that crime, or the threat of crime was the reason for the student staying home from schools. The proliferation of gangs also increases the likelihood of students bring weapons to school as well (Ingersoll & LeBouef, 1997).

Looking at recent trends, it is clear there is an overall increase in gang activity in schools across the U.S. Examining national data from the mid 1990s, Howell reveals that in a national sample, 28 percent of students indicated gang presence within their schools. In 1999, this statistic declined to 17 percent, but then rose again to 23 percent in 2007 (2010, p. 2). Of course, the overarching concern is the increase in gang activity. Yet, we

should also examine when and why there was this decrease in 1999. Perhaps effective gang prevention programs were in place or other factors contributed to this decline. It is important to examine the programs in place during this time.

Currently there are various known prevention programs developed to combat gangs membership. Specifically, there are community-based and school-based intervention programs discussed in Ramsey et al. (2003) that work to train the teachers and parents to handle at-risk youth and to teach students skills related to interpersonal development (Howell, 2010). School administrators, teachers, school psychologists, school counselors and school faculty have the ability to provide early prevention and intervention services to at-risk children in the community, to help alleviate the community influences, especially because school is mandated and these educators have direct access to children (Poland, Pitcher, & Lazarus, 2002.) This is justified from research that reveals that there is a positive association between school problems and gang involvement for youth (Wood et al., 1997). There are prevention strategies provided at the schools that include suspensions, safety plans, resource officers, mentoring, school-to-work support, peer conflict managers, peer tutoring, professional and career academics and after school recreational activities (Ingersoll & LeBouef, 1997).

Furthermore, there are curricula that focuses on engaging gang members and helping them learn how to manage their anger, resolve conflicts, resist peer pressure and appreciate diversity (Ingersoll & LeBouef, 1997). Special outreach programs have been created that use strategies that include community volunteers, school administrators and youth-service providers to help prevent gang membership (Ingersoll & LeBouef, 1997).

Changing the contextual factors within the schools can help prevent violence and other antisocial behavior and also build a community more conducive to learning.

With regard to violence in school, “we cannot afford to fail a large percentage of our human resources by continuing to place the emphasis in school discipline on the reactive measures of security arrangements (e.g., alarm systems, security personnel), punishments, suspensions/expulsions or incarceration,” because this can only be perceived temporary and reactionary in nature when attempting to manage the situation (Mayer, 2002). Spending money, time, and effort without looking at existing research and evaluations to solve the gang problem can quickly turn into a “thoughtless expenditure” and will not solve the problem (Youth at the United Nations, 2003).

Therefore research-based services and programs will be the most successful in addressing the needs of the community, family and school with regard to gang prevention and youth delinquency.

Purpose of the Study

This study seeks to determine what prevention programs decrease the chances of youth members from joining gangs, despite risks factors associated with joining gangs. Although, data has been collected on the effectiveness of these programs (Ramsey et al., 2003). Howell (2010) notes that no consensus exists on how gangs form. While many gang prevention programs have been implemented, only a few have rigorously been evaluated (Ramsey et al., 2003). Analysis of comprehensive models finds that a combination of community and school-based intervention is necessary to prevent youth with at-risk factors from joining a gang. Research suggests that enabling activities would allow for school and community to target specific problems and provide programs to

encourage healthy growth that would pave the way for increased emotional and health wellness (Adelman, 1996).

The current study seeks to synthesize the research that has been done to formulate definitive conclusions as to what prevention methods decrease the likelihood of at-risk youth to not to join a gang. For the purposes of this study, the focus will not be on the intervention or suppression methods used, but specifically preventative methods.

Terminology

Youth Gang: An exact definition of a gang is difficult to articulate because there are numerous definitions presented in the gang literature. Due to this ambiguous meaning, there are often differing explanations that affect the ability to generalize research. Gang activity includes students denying teacher authority, vandalism at the school, wearing specific gang-specific clothing or colors (Ramsey et al., 2003). For the purposes of this study, the definition of a gang is a group that is involved in a pattern of criminal acts typically composed only of juveniles (National Gang Center, 2009). A youth gang is defined in this study as, *A well defined group of youths involved in patterns of criminal behavior with members between ages of 10 and 24 years, with the average age of 17 to 18 years* (National Institute of Justice, 2008). Current research illustrates that by using a broader definition and depending on self-identification lends itself for the most valid sample of gang members (Esbensen, et al., 2001). This definition was also used in the three largest longitudinal studies on the risk factors and gangs (OJJDP, 2009).

Juvenile Delinquency: A violation of the law committed by a juvenile that would have been a crime if committed by an adult; antisocial behavior by juveniles that is subject to legal action (Merriam-Webster's Dictionary of Law, n.d.).

At-Risk: In this case at-risk is defined as, *Juveniles who are most likely to manifest antisocial and/or delinquent behaviors, including substance abuse or mental health problems* (National Institute of Justice, 2008).

Protective Factor: While there has been extensive use of the term protective factor and similar words, such as risk protection, resiliency, buffering, invulnerability, hardiness, protectors, there is a lack of clearness and uniformity in its definition. In this study, protective factors will be defined as *individual or environmental characteristics that enhance a youth's ability to resist stressful life events and promote adaptation and competence* (Bogenschneider, 1996). Following the definition from the OJJDP's longitudinal gang studies examined by Tiet and Huizinga, (2002) this meaning designates that protective factors are part of the process and interact with the risk factors, sometimes countering or negating them. This nuance is critical when gauging the factors why one joins a gang,

Enabling: Providing with the means or opportunity; making possible, practical, or easy; giving power, capacity, or sanction to (Merriam-Webster's Dictionary of Law, n.d.).

Risk Factor: Any circumstances (individual or environmental) that may increase youths' likelihood of engaging in risky behaviors (Caldwell & Altschuler, 2001).

Resilience: A successful psychosocial development despite social and economic hardship (Werner & Smith, 1989).

Prevention programs: Target youth at risk of gang involvement and help reduce the number of youth who join gangs (Howell, 2010).

Intervention programs: provide sanctions and services for younger youth who are actively involved in gangs to push them away from gangs (Howell, 2010).

Bridge to the Review of Research

The following sections of this thesis will outline the current research related to preventative methods for youth who join gangs or may be at-risk for joining gangs. Once the research has been reviewed, a synthesis of the findings of each study will be conducted to determine which prevention programs are the most effective for deterring potential gang involvement for youth. Based on the outcome of the synthesis, the resulting information can be used to apply these findings to current programs and suggest suggestions for future research as well.

Chapter II

Literature Review

In recent years, researchers have carried out various studies in an effort to identify the different methods involved to prevent youth from joining gangs. The United States Office of Juvenile Justice and Delinquency Prevention (OJJDP) is an organization that has provided much of the funding and cited research on youth gang prevention studies. To date, there are limited studies that examine prevention programming targeted towards specific risk factors for youth gang involvement in the education system, despite strong associations among those youth who are more likely to join gangs and students with limited school attachment, academic failure, and learning disabilities (OJJDP, YEAR).

In most studies examining youth gang members, questions are posited to gauge whether or not the youth has ever been involved in a gang or not. In gang research, this approach is common with research design in gang research because it provides the opportunity to study the range social and emotional states that may lend itself to gang involvement. Gang prevention programs will be the most effective if they specifically target the demographic at-risk and if they appropriately meet the unique needs of that said community. Therefore each community needs to do collect accurate information and make an assessment of their specific gang problems to implement effective strategies to guide their operations and priorities (Chatterjee, 2006). There are different types of prevention programs: 1. Primary prevention methods targets the entire population and examines personal, social and environmental factors that may influence at-risk adolescence. 2. Secondary prevention methods identify people highly at-risk. 3. Tertiary

prevention involves methods for actual gang-members or those who have already committed crimes (Chaterjee, 2006).

Relevant Research on Risk-Factors Related to Gang Involvement

To begin, it is critical to understand that risk factors only increase one's chances of joining a gang--they do not necessarily lead adolescents to be in a gang. However, gang membership is the result of various kinds of risk factors built up, and the greater number of risk factors a person has, Howell (2010) suggests, the more likely they are of reaching a negative outcome. Current research links the presence of youth gangs to psychological, personal factors, socio-economic (poverty and unemployment, actual or perceived disadvantage), family-related (dysfunctional, abusive or negligent family,) or school (poor academic performance), peer-related (delinquent peer groups), and community factors (disorganized and unsafe) (Wyrick & Howell, 2004). Youth are more likely to join gang if they are looking for safety. They are also influenced if family members are members of the gang as well (Howell, 2010).

Risk factors can systematically be organized into five areas: individual, family, school, peer group, and community. At the individual level, a student is at risk if he or she displays antisocial behaviors such as alcohol use, drug use, early dating, precocious sexual activity, early involvement in delinquency, aggression, or violence (without a weapon) (Wyrick & Howell, 2004). Specifically, a major predictor of a youth joining a gang can be determined if he or she uses alcohol and drugs, such as marijuana. Other evidence suggests that youth with mental health problems including externalizing behaviors, hyperactivity, conduct disorders, and depression are also at risk. Students who have been abused, physically or sexually, those who have been neglected in the home, or

assaulted inside or outside of the home area are also more likely to join a gang (Howell, 2010).

The family directly influences an adolescent's decision to join a gang. Weak family structure and poverty and poor parental supervision can influence a child's behavior (Wyrick & Howell, 2004). For example, stressors such as having single-parent households, and financial stress may lend itself to fragile family structures or multiple caretaker changes. As a result, these conditions make it less likely for youth to have adequate parental supervision. Parents who lack education can put their child at-risk. Moreover, parents whose behaviors support violence inside or outside of the home, such as those who commit child abuse or neglect, also put their child more at-risk for gang membership (Howell, 2010).

There are risk factors that take place in the school, and therefore a student's academic achievement in school can be a predictor for potential gang membership. Gang involvement can be related to a student having low academic goals, doing poorly in school, or an adolescent dropping out of school (Wyrick & Howell, 2004). Empirical data suggests that low math tests scores actually correlate to potential gang membership. Students who experienced poor school conditions, feelings of being unsafe at school, poor academics, numerous suspensions or expulsions are likely to join gangs. (Howell, 2010). Gangs can function as a way for students to feel protected and protected in the schools. Howell (2010) describes how school plays a critical role in the student's future because youth who eventually become gang members typically lacked a commitment to school and a positive connection to their teachers as early as elementary school. Teachers can play an impact because students who are subject to teacher's negative

labeling and who are punished more frequently than others are more likely to join gangs. (Wyrick & Howell, 2004). Clearly the school environment and the school administration who help foster this environment, have the ability to negatively influence a child's future path.

Peers can also be a risk factor as associating with peers in early adolescence who are aggressive and antisocial plays a significant role in gang membership. Simply being rejected by peers can influence one's decision to join a gang so that the adolescent will feel socially accepted by a different group (Howell, 2010). Also, having friends with favorable attitudes toward problem and rebellious behavior, and substance abuse, also make a difference (Coolbaugh & Hansel, 2000). For females, a girl merely having a boyfriend or close friend in a gang will likely lead her to be involved in delinquent behavior as she is affected by more risk factors and will then be likely to join a gang (Howell, 2010).

The community can also reflect numerous risk factors because gangs typically cluster together in these typically unsafe neighborhoods. Communities with negative influences such as greater levels of criminal activity, large numbers of youth participating in illegal activities, existing gangs, and an overall decreased feeling attachment to the neighborhood can make individuals more prone to joining a gang (Wyrick & Howell, 2004). Furthermore, at-risk youth are exposed to widespread availability and use of firearms and drugs, media portrayals of violence, transitions, and economic deprivation (Coolbaugh & Hansel, 2000). In these low socio-economic areas, the gang can offer feelings of protection for youth (Howell, 2010).

Having concrete knowledge of these risk factors allows gang prevention strategies

to be based on appropriate assumptions and concerns. In order to implement successful prevention programs from youth gang membership, it is necessary to have empirically based prevention programs targeted toward the specific risk factors involved.

Relevant Research on Protective Factors Related to Gang Involvement

Current research has revealed that risk factors can influence a youth's behaviors. Yet adolescents can also prevail despite their risk factors. While there is limited research on protective factors that directly affect gang membership and delinquency (Howell & Egley, 2005) there are in fact some protective factors related to decreasing problem behaviors in general, that include academic competence and motivation, (Allen, Philliber, Herring & Kupermine, 1997), high self-worth (Leadbeater, Blatt & Quinlin, 1995) and being religious (King, Elder, & Whitbeck, 1997). Opportunities for pro-social activities, well-established social norms in stable neighborhoods, efficient schools, and effective parents and a healthy attachment, good relationships with pro-social groups of peers and social competencies also help deter students from joining gangs (Chatterjee, 2006). Numerous research studies have specifically looked at the correlations between protective factors and gang membership. Like risk factors, protective factors can also be categorized by: individual, family, school peer, and community.

At the individual level, some studies have found self-esteem to be a protective factor against gang membership. One study by Dukes, Martinez and Stein (1997) found the levels of self-esteem highest for youth who were not involved in gang. Another study by, Maxson, Whitlock and Klein (1998) revealed that non-gang members had increased perceptions of self-concepts and were more future-oriented. Moreover, having more social problem solving skills served as a protective factor for gang membership (Vigil &

Yun, 2002). Other studies indicated that youth not in gangs had decreased tolerance for deviant behavior compared to youth in gang (Esbensen & Huizinga, 1993).

Students who have feelings of high self worth, well developed social, cognitive and problem-solving skills and good achievement in school performance are also more likely to do well. This usually relates to having strong family encouragement, discipline, guidance, good role models and accurate beliefs of hope for positive opportunities (Chatterjee, 2006). Family influences, such as family structure and positive parent relationships play a key role in deterring youth from joining gangs (Stoiber & Good, 1998). A study by Li and colleagues (2002) specifically found family structure to have significant difference with youth being less inclined to join a gang if they had one or both biological parents in the home compared to adolescents living with one biological parent and another adult, or no biological parents. This study indicated that non-gang involved subjects had significantly more family involvement, communication, and parental monitoring. Another study found non-gang members to have higher levels of self-esteem as a result of their home environment, parent involvement, family cohesiveness and attachment (Maxson et al., 1998).

School factors can also provide protective factors to deter youth from joining gangs. Studies reveal evidence that increased academic achievement and positive attitudes toward school may be important protective factors. For example a study based in Colorado determined that increased self-concept in academic capability was the highest for non-gang members. Even more, these students with increased perceived academic abilities had greater educational bonds (Dukes, Martinez & Stein, 1997). A study by Maxson and colleagues (1998) concluded that youth uninvolved in gangs were

more likely to be full time students, to have better grades and more positive educational attitudes. Chatterjee (2006) discusses how having supportive and caring adults, such as teachers at school can provide a protective factor.

Protective factors are also related to how non-gang members view and experience opportunities within their communities. For example, church attendance was found to be significant among non-gang members compared to gang members in a study done in Washington, D.C. of 90 Hispanic youth (Lemus & Johnson, 2008)

Developmental Assets Research

The developmental systems model, initiated by the Search Institute, believes that all youth possess individual and contextual assets that may help with positive life outcomes. Regardless of a youth's socioeconomic status, gender, religion, sexual orientation, or ability, the model posits that 40 developmental assets can determine the potential for a youth's ultimate success. Similar to protective factors, developmental include external conditions such as support, empowerment, time, and boundaries and internal conditions such as values, educational commitment, social competencies and positive self-identification (The Search Institute, 2010). A study assessing how developmental assets can directly correlate protective factors and decreased gang membership found that those youth in community based organizations had rules at home, positive relationships with parents, emotional support from parents, healthy communication styles with family members and more interactions with family members (Taylor et al., 2003). Even more, the youth with community based organization significantly different from youth gang with regard to family life, experiences, conflict management skills, feelings toward school, religiousness, beliefs regarding drugs and

their views of a positive role model. Thus, the developmental assets may lend to more protective factors to improve research on preventing youth from joining gangs.

Relevant Research on Preventative Measures Related to Gang Involvement

In general, Moore (1998) observed that there are four conditions evident during the process of gang formation: 1. Ineffective families and schools lacking proper adult supervision; 2. Lack of opportunities for pro-social activities for adolescents; 3. Unavailability of good employment opportunities and 4. No access to a common area for youth to convene. With this knowledge, numerous reactionary measures can be concluded to be effective, such as providing better education, job opportunities, enhancing community resources or increasing family support. Yet, several national studies have found that there is little evaluation on the impact of gang prevention and intervention programs. Prior to allocating funds for prevention programs, evidence the program's success is needed. Based on Spergel (1995) there needs to be complex outreach with a "higher level of coordination across professional disciplines and types of agencies, better trained educated workers, and a strong commitment to long-term research and evaluation," to show the if these programs are effective in preventing gang involvement.

In order for communities to develop appropriate preventative measures, Howell (2010) describes how at-risk youth members for gang involvement should be identified at the outset. Communities must first identify the underlying characteristics of a gang member in that specific community. In line with this belief, the OJJDP has developed *A Guide to Assessing Your Community's Youth Gang Problem* that involves a problem solving and data-collection approach to appropriately assess each community's individual

needs. Communities can then use the OJJDP's Comprehensive Gang Model to identify at-risk neighborhoods and areas of gang activity to get a sense of: who is involved, what criminal activities are occurring, when and where are they happening, and why is it occurring (Howell, 2010). For example, the National Youth Gang Center of the USA developed a gang assessment instrument that collects both quantitative and qualitative data to track gang crime in an in-depth manner. This first step in gang prevention strategies is important in establishing a baseline to evaluate programs (Wrick & Howell 2004).

For a prevention program to be successful, it needs to be targeted at providing at-risk youth with appropriate alternatives (Chatterjee, 2006). One can look at how a student's experience and exposure to different aspects of life from childhood through school can affect major risk factors, such as family, school, peer group individual characteristics, and community, that directly affect a child and adolescent's choices. (Howell, 2010). These issues coupled with youths' basic needs of love, belonging, personal safety, discipline, structure, and protection are fulfilled contribute to the likelihood of youth joining gangs. Many researchers propose that a multi-agency and multi-faceted approach using community mobilization, social intervention, counseling, drug prevention, opportunity provision and targeted suppression is needed (Chatterjee, 2006). In general prevention programs include early childhood, school-based, and after-school projects. They can be both direct and indirectly related. Direct prevention methods directly try to change a child's attitudes and the offer alternatives to gang involvement through recreation centers, community service organizations, fieldtrips, etc. On the other hand, Solis, Schwartz, and Hinton (2003) discuss indirect preventative

approaches provide social, economic, housing and educational services or try to improve the quality of life in neighborhoods who are struggling economically.

Early prevention programs that addresses risk and protective factors before the likelihood of gang involvement are the most effective (Howell, 2010). These can occur at one or more in the following areas: the individual level, peer level, with family prevention, and with school-and community-level prevention.

Gang prevention programs focused on positive peer influences have had promising results. One theory is that the gang life-style provides youth with more power, respect, money, drugs, sex and excitement. For this reason, resisting or transitioning away from gang life is difficult because peer influence easily dominates adults' influence (Hritz & Gabow, 1997). The Denver's Gang Rescue and Support Project (GRASP) was developed as a peer run intervention program for youth involved or at risk for joining gangs. The program uses small group meetings and mentoring to provide at-risk youth with leadership roles. The participants are asked to use positive interactions with each other during their weekly group sessions. Thus far, a pilot study evaluating GRASP's effectiveness of reducing association with gangs found promising results. Post-intervention questioning methods revealed decreases in gang membership, arrests and violence-related injuries. Furthermore, over 74% of the participants indicated that this program helped them stay out of trouble (Hritz & Gabow, 1997).

Another program was evaluated in the inner-city of Chicago looked at the how community-based peer-mentoring programs may serve as a preventative measure for at-risk preadolescents for violence and gangs. Cabrini Green, Chicago is known for being one of the most violent neighborhoods in Chicago and there are at least three major

influential gangs. The Cabrini Green Youth Program (CGYP) was developed to decrease violence and aggressive behavior in elementary-aged students with an 18 month intervention that consisted of adolescents within the community mentored their peers (Sheehan, DiCara, LeBailly, & Christoffel, 1999). Results from the study indicate that school aged children who were apart of the peer-mentoring program did not have an increase in supportive attitudes toward violence and subsequent violent behaviors compared to the increase in attitudes that the control group had.

School based programs are essential because school campuses are increasingly becoming the base of youth and gang violence. Schools are now taking preventive measures, using the assumption that gang involvement is a behavior that is learned, and therefore by altering the function of the behavior, students can be deterred from gang involvement (Solis, Schwartz, & Hinton, 2003). The General Accounting Office conducted a national survey in 1995 and categorized three major forms of school-based prevention programs. The first is “Educational and Curricula-based” and involves programs with a curriculum in the classroom that focuses on issues such as conflict resolution, social skills, mentoring, law enforcement and gang aversion. The second type of school-focused program, “Environmental Modification,” addresses the social and/or physical settings of students in an effort to keep students safe on campus and out of the streets when not on campus. Environmental Modification includes anything from extra-curricular recreational and academic activities to extra school security guards and metal detectors. Finally, “School organization and Management” programs utilize school policies and procedures to prevent gang violence (General Accounting Office, 1995)

One such school-based program is the Gang Resistance Education and Training

program (GREAT), specifically focused on gang and delinquency prevention for middle school students. This proactive approach was developed in 1991 in the Phoenix-area and has since undergone drastic changes to make improvements upon critical evaluations. Uniformed officers are trained to direct a structured anti-gang curriculum towards students and discuss combating violence, prejudice, victimization etc. This program uses training with cognitive-behavioral components, social skills, refusal skills and conflict-management techniques (Howell, 2010). Ideally, the program would reduce gang activity and educate youth about the negative consequences of joining a gang (Ramsey, Rust, & Sobel, 2003).

At the outset, a national study in 1991 examined almost 6,0000 eight graders who participated in the GREAT Program. The students reported they were less likely to join gangs, shared they had significantly lower levels of gang affiliation and delinquency, had less drug use, greater self-esteem and less delinquent friends and had an increased knowledge in understanding gangs compared to those who did not participate in the program.

Another evaluation of the GREAT Program was performed at a middle school in Tennessee, with seventh graders assigned to the experimental group and eight graders assigned the control group. The curriculum consisted of nine lessons. The results of the study found improved attitudes from all groups, including participants and those from the control group, indicating that improved beliefs were unrelated to program participation. This specific study did not show any evidence to support the evidence of the GREAT program (Ramsey, Rust, & Sobel, 2003). Despite these inconsistent findings, Esbensen et al. defended "GREAT, in tandem with other programs, may prove to be one piece of a

much larger solution (2002, p.7).

Subsequently, the GREAT program was rigorously reviewed by program experts, youth gang experts, GREAT office personnel, and GREAT researchers and resulted in a substantially modified core curriculum that was called GREAT II. The new and improved content used a strength-based approach with effective interactive teaching strategies, school-based prevention strategies, and updated gang prevention methods. The program now reflected 13 lessons (compared to 9), more school, family and community involvement, summer programs, partnerships with the Boys and Girls Club, and a website with resources. Due to these changes, preliminary findings from another evaluation indicate GREAT II has made progress in helping youths avoid gang membership and in helping to create positive associations with law enforcement. The students did not have statistically significant differences in their empathy, risk-seeking and conflict resolution, however (Esbensen et al., 2011).

The Gang Resistance is Paramount Program studied the effects of educating students and their parents about the consequences of gang involvement (Solis, Schwartz, & Hinton, 2003). Originally launched in 1982, the program implements prevention strategies to reduce gang activity, yet the program has been improved and changed since its inception. For example, in 1990, second graders were incorporated to the program because the GRIP managers wanted to reach children at an even younger age. Second and fifth graders at elementary schools, and to ninth graders at the high school receive a school-based curriculum that currently consists of 26-29 lessons. Opportunities for family-based counseling and recreational activities are available through the program. The City of Paramount's Recreation Department supervises the program and its manager

and five instructors. The parents of participants are provided with information on peer pressure, drugs, alcohol, self-esteem, family crime, gangs and territory, vandalism, etc.

A study on GRIP compared gang participation rates and attitudes between GRIP participants and students who had not experienced GRIP via a survey administered to 735 ninth graders. Results found that students who experienced GRIP are moderately less likely to report involvement in gang activity than students who have never participated in the program and less drug and alcohol usage (Solis, Schwartz, & Hinton, 2003).

Additionally, the program was more helpful with males. Upon completion of the study, 90% of the at-risk youth who participated had negative attitudes toward gang involvement. Unfortunately, the evaluators were not able to quantifiably identify the isolate effects of the GRIP Program in preventing gang activity due to the additional complementary programs in Paramount (i.e., TARGET program, Good Neighborhood Program, Paramount Rehabilitation Project, Paramount graffiti program, Outreach by the Department of Parks and Recreation, etc). The four highlights of the program included: 1) The involved staff, 2) the information presented to the students about the consequences of gang involvement, 3) referrals offered by the GRIP staff to teachers, students, and parents for additional resources and 4) the young age at which GRIP begins the program. Even more, the GRIP program appeared to be serving all ethnicities equally well too (Solis, Schwartz, & Hinton, 2003).

Some programs focus on support beyond the school, such as in the home and community. Evidence indicates that community led efforts, such as community mobilization, are one of the most effective strategies in approaching gang problems (Chaterjee, 2006). Community Mobilization is the involvement of local citizens and

organizations such as local residents, and groups, police officers and former gang youth (Spergel & Grossman, 1997). These prevention strategies provide support and counseling for youth and their family, education training and conflict management skills, and recreational programs, such as after-school opportunities (Chatterjee, 2006).

The Little Village Project was a four year long Violence Reduction Project that used community mobilization, social intervention, suppression, opportunities provision, organizational development and targeting to prevent and control serious gang violence in Chicago. The Little Village Project consisted of support from the Chicago Police Department, a unit of police officers, a part time neighborhood relations sergeant, a part-time clerical officer, adult probations officers, a unity of community workers, and community members from the church, neighborhood leaders, a jobs agency, two boys and girls club programs, and a major local youth agency. This team worked together to support the effectiveness of this program. The community youth workers, many of whom were former gang members, were able to gain youth gang members' respect and provided them with counseling, job placement, and school referrals. Over a four year period, youth in the program experienced a relative reduction in gang crime, gang violence compared to the control group. Little village had the lowest increase in gang violence compared to the six similar areas in Chicago with similar demographics and gang violence (Spergel & Grossman, 1997). Based on the results from the collaborative effort, the Spergel and Grossman (1997) concluded "no single agency, community group, discipline or approach alone is sufficient to successfully address a complex problem such as gang crime."

Outside of school programs in the community have been implemented as well. One theory is that effective programs for combating gangs include prevention and intervention components (Huff, 1994). In 1992, the Community Action Resource Team (CART) was established in Mountain Terrace, Washington as a “non-punitive program” to deal with the rising youth violence and gang activity. The goal of the program was to provide youth at risk youth of gang involvement or those who are already associated with gangs, a late evening program with recreational and social activities during the weekends. CART developed the Neutral Zone, a community-based gang prevention and intervention program that provided teenagers an elementary school to convene at between 10pm and 2am during the weekends. At-risk youth could voluntarily come to the Neutral Zone and participate in recreational services (e.g., basketball, volleyball, music, movies), and receive social services (free food, counseling), job skill training from adult role models. The goal for staff members was to reduce crime, provide a safe place from violence, treat all members with respect and to encourage a positive rapport between the youth attendees and the staff members. As a result of the program, the youth shared that they routinely left the Neutral Zone and participated in “legitimate” activities upon leaving the program (Thurman, Giacomazzi, Reisig, & Mueller, 1996).

In 1995, another after-school program called the YouthARTS Development Project, began as a program for at-risk youth to help reduce problem behaviors such as drug use, delinquency, teen pregnancy and school failure and to provide positive adult role models, while teaching art skills, life skills, pro-social behavior, and encouraging self-confidence (Clawson & Coolbaugh, 2001). The program consisted of after school, weekend and summer programs focused on art programming activities. Although

programs were initiated at a national level, only the Youth Arts Public Art in Portland, Oregon focused on adolescents specifically at risk for gangs, those who were apart of the Gang Resource Intervention Team-GRIT). GRIT included youth who were between the ages of 14 and 16 who were involved in, or specifically at risk for gang activity. The attendance by the GRIT members was low and infrequent, no statistical significance could be calculated to determine a positive influence for those who participated. There was still a noticeable improvement in the participants' reported delinquent behavior during the program and during a 19 month follow up report. There is potential with the Youth ARTS Development Project in providing healthier life styles with positive role models and goals but more research is needed (Clawson & Coolbaugh, 2001).

It is also worth examining whether prevention programs should be uniquely geared only toward delinquent gang members, as opposed toward delinquent adolescents in general (including non gang members). Are gang members more difficult to treat than non-gang members, especially because there is evidence that gang members commit a greater volume of crimes? Schram and Gaines (2005) suggested that gang affiliation may not be "an impediment" to general treatment programs for delinquent adolescents. The Multidisciplinary Team (MDT) Home Run Program was for juveniles under probation who were considered at a high risk for becoming involved in serious crime. The holistic and wrap-around program worked to meet all of the youths' needs in one comprehensive program, including a public health nurse, a licensed clinical therapist, a social service provider, a probation officer to assist the individual and the family and general community services. As a result of the program, both groups significantly had better grades, missed fewer classes in school and had a decrease in the number of suspensions.

At home, both groups reported better family functioning and less drug and alcohol abuse. The study's results revealed a decrease in later delinquent behaviors from the participants as well. Therefore programming for at-risk youth of gangs membership or youth more strongly identified with the gang lifestyle may also benefit from general programming for non gang affiliated youth (Schram & Gaines, 2005).

The Youth Gang Unit, developed in Cleveland, Ohio, also serves as an example of a successful gang intervention and prevention program using efforts from the community and police department. During the second year of the program, there was a 26 percent decrease in reported gang related incidents. This decrease was reportedly attributed to the Youth Gang Unit's strategies, which consisted of counseling sessions, anti-gang presentations to students and the collaborative efforts with the local police gang unit (Trump, 1993).

Interestingly, there are successful programs that were not originally intended to assist in gang prevention, but have had positive results. In San Francisco, for example, Sheldon (1999) examined the Detention Diversion Advocacy Project (DDAP). DDAP was a multilevel community approach developed to reduce the number of youth in the juvenile justice system, suggesting that legal interventions may actually perpetuate the problems. This program was also initiated as an alternative to the disproportionate number of African American youth (compared to the general population) who were referred to juvenile court. The youth selected were considered at "high risk" for engaging in further delinquent activity, and many of the DDAP clients were, in fact, at-risk gang members as well. The participants were provided with culturally relevant community-based services--including tutoring, drug counseling, job training, recreational

opportunities, psychiatric treatment, individual and family counseling—to accomplish their specified objectives. A highlight of the program was the client-based approach provide by the assigned case mangers. The case mangers had daily communication with the youth to monitor progress and to guarantee the quality of services provided. After evaluating the study, there was a much lower reported recidivism rate (34%) for those who participated in the program as compared to the control group of youth (60%) who did not participate (Sheldon, 1999). Therefore, wrap around community services serve as an effective gang prevention program for at risk youth.

The community can also play a role using violence prevention programs, which have been shown to decrease the occurrences of intentional injury. Once such program, described by Hughes et al. (2012) is called A Second's Chance. The program uses true-to-to life mock demonstrations of gang violence scenarios to help increase youth awareness about the consequences of gang activity. Based in New Hanover, North Carolina, A Second's Chance is part of a collaborative approach with the sheriff's gang task force initiative. At-risk youth for gangs were identified and then participated in a true-to-to life dramatization of a gunshot victim who was portrayed as a young gang member. After the viewing, the youth were debriefed and discussed alternatives to gang involvement. Students are provided treatment for underlying emotional needs, social skills training, anger management skills, positive community role models, and individual, group and family therapy. A Second's Chance gang prevention program proves to a potentially effective strategy that needs further research as a standalone program.

The Youth at the United Nations (2003) report indicates that recent studies have show that differentiation between offenders and victims is based on differences within

each gender. In this way, prevention methods need to have gender-related components when they are developed (Youth at the United Nations, 2003). Evidence indicates the number of female gang members are rising. A study in 1998 by the National Youth Gang Center (2000) estimated there were close to 63,000 female gang members nationwide. Another recent comprehensive survey estimated that 38% of gang members are girls. Even more, females, as compared to males, are shown to have more long-term negative results from gang membership that affects their children, and make them more prone to crime victimization. This information provides even more support that emphasis should be placed on preventative and intervention methods for at-risk female youth.

The Pueblo program known as *Movimiento Ascendencia* (Upward Movement) is a youth prevention and intervention program against gangs and drugs for females, specifically Mexican-American youth, in Colorado (Williams, Curry, & Cohen, 2002). The female gangs in Pueblo were “extremely visible” and “very much involved in exacerbating violence in crime, drug marketing.” The program provided females drug prevention programs, a youth center for runaways, and community based services. The core of the project included management skills, increased social support to self-esteem and cultural awareness. Participants received individual strategies such as informal counseling, mentoring, positive female role models, social skills training, family strategies, positive peer groups, and peer counseling. They also received community strategies such as cultural enhancement, community service and education. Participants in the program were correlated with a reduction in delinquent behavior. Prior to the program, the control group had significantly higher grades than the treatment group. After the program studies by Williams et al. (2002) data suggested that both groups had

statistically significant increases in reported average grades, so that the difference between the two groups after the program was no longer significant.

Synthesis of Review of Research

As communities are beginning to identify the risk factors and strengthen the protective factors of at-risk youth for gang membership, efficacious prevention strategies are the next step. Community members experience the horrific affects of gangs and feel powerless to defeat the gang-related violence in their neighborhoods. It may be assumed that police need to apply suppression strategies through supervision, surveillance, arrest, probation, and imprisonment of gang associated youth. Yet, in the United States, researchers have found that just using suppression techniques commonly used by the police have not been effective, or efficient in many cities (Howell, Moore, & Eagley, 2002). Police cannot be asked to solely provide the solution for the diverse problems that gang membership stem from—it requires a comprehensive approach involving strategies that use prevention, intervention, and suppression methods (Solis, Schwartz, & Hinton, 2003).

Since communities are the most effective in addressing gang youth strategies, they have an obligation to provide appropriate supports and prevention for youth at high risk for gang membership. Research from Chatterjee (2006) suggests that having community mobilization efforts are invaluable in addressing gang difficulties, especially using the support from the neighborhood, churches, schools to ensure that agencies share information. Specifically communities can take appropriate action to strengthen their schools' programming, which can influence youth at an early age. Effective school-based gang prevention programs with practical steps in conjunction with other measures

that increase school safety are in demand. Schools must identify and target at-risk children and adhere to the requirements based on the original prevention model with high fidelity (Howell, 2010). Of course, these programs should be proven effective before investing financial resources.

The Office of Juvenile Justice and Delinquency Prevention (OJJDP) believe a comprehensive approach to gang prevention is the most effective that uses: community mobilization, social intervention (including prevention), opportunities provision, social control and organizational change and development (Chatterjee, 2006). Interestingly some studies have shown that programs not directly designed as gang prevention programs actually benefit those at risk for youth crime in general (Shay, 1999). Overall, a multi-faceted, multi-partner, comprehensive model and balanced strategy has also been proved to prevent gang problems (Chatterjee, 2006). The research examining prevention methods of youth gang involvement is still lacking. This can be attributed to this limited number of studies that have been performed. Even more, with the current studies, results vary depending on the specific population targeted, the instruments used, and the researcher's concentration (Howell, 1998).

In general, many program have been examined that incorporate various methods, such as opportunities provision and social interventions. Opportunities provision uses relevant opportunities such as jobs, special education programs and training programs to help risk at youth for being gang members. Many gang prevention strategies involve studies that use social intervention. Ecologically based, social intervention uses crisis counseling, individual and family counseling to support at-risk youth. Moreover, social intervention consists of referral for services and resources such as jobs, training, drug

treatment, etc. that have also been found to be effective (Spergel & Grossman, 1997).

Many successful programs have been reviewed and Sheldon, Tracy, and Brown (2004) found key components of a successful program:

1. The community needs to acknowledge the existence of a gang problem;
2. Programs should focus on medium to high-risk youth and utilize a multi-faceted approach that includes social skills/values development;
3. Programs must provide alternatives to the criminal life style;
4. Programs should put special emphasis on families, schools and communities;
5. The staff should be appropriately trained and understand the youths' perspectives and experience;
6. Programs should lead to legitimate employment by providing necessary job skills;
7. There should be a concrete goal of the programs such as a diploma or certificate; and
8. Key people should be aware of the possibility of a relapse and the need to provide ongoing assistance

Overall, gang prevention requires a comprehensive, culturally sensitive and developmentally appropriate approach and involves members from schools, community leaders, criminal justice community. Currently, many gang prevention strategies are unlikely based on empirical research (Howell, 1998). As a result, there have been many unsuccessful prevention programs with youth who may be more likely to join gangs. As Solis, Schwartz, and Hinton (2003) suggest, a thorough examination of these prevention methods can pave the way for legislation at the local, state and federal levels to target and

decrease the gang issues. Given sustainable funding for implementation beyond pilot studies, communities can begin to develop proactive crime prevention programs as opposed to reactive programs.

Chapter III

Methods

Introduction

The purpose of the present meta-analysis (i.e., a quantitative approach for systematically combining results of multiple research studies) is to examine which specific preventative measures have empirical evidence for limiting at-risk youth from gang involvement. To the extent permitted by the original research, the age of those surveyed, the research methodology, and the definition used for gang membership used will be assessed. By using the statistical technique, all of the quantitative research on preventative measures will be analyzed, summarized, and reviewed to make conclusions and provide recommendations regarding those prevention methods that may be the most successful at keeping youth from joining gangs.

The criteria for inclusion in the current study were: (a) studies that have quantitative outcome data regarding prevention programs that may decrease overall youth from gang involvement, (b) studies that were conducted in the United States or Canada and published in English, (c) studies were conducted between 1990-2012. Various methods were used to ensure that the sample of published studies consisted of an exhaustive sample in the current analysis. The initial phase of the study involved using computerized databases such as PsycInfo, ERIC, GoogleScholar, PubMed and SAGE electronic databases to search for potential studies. The following descriptors were used: *youth gangs, prevention for youth gangs, prevention and interventions for youth gangs, measures related to preventing gang involvement, youth gangs and school prevention programs, delinquent youth and gangs*. Studies only between 1990 and 2012 were

included. Second, as articles were retrieved, their references were closely reviewed in order to search for additional relevant studies. Lastly, non-peer-reviewed papers (chapters and doctoral dissertations) were considered for inclusion to reduce publication bias (McLeod & Weisz, 2004). The search was continued until no new author's names or studies appeared. In February 2012, the search was completed with 10 studies identified (See Table 1 for complete list).

Specific Exclusion Criteria

The search process presented 100's of items. However, a majority of the studies were excluded because they did not meet inclusion requirements. Many were qualitative in nature, and many had started the program evaluation, but conclusive data was not yet available. Although many youth gang prevention programs have similar components to youth violence prevention programs, studies were only included if the strategy was specifically for at-risk gangs members. Moreover, many studies did not strictly look at prevention methods for gang involvement with quantitative comparisons between non-gang members and gang members. In other words, they were not included if there was insufficient data to allow for calculation of effect sizes for the designated prevention measures. Therefore, these studies were also excluded from this present study.

Coding of Study Features

While a majority of the studies examined participants between the ages of 6 to 24 years old, the sample sizes varied from n=49 to n=735. Studies were done throughout the United States including: California, Colorado, Illinois, New Mexico, North Carolina, Ohio, Oregon, Pennsylvania, Tennessee, Texas and Washington.

Gender composition of each sample was categorized depending on whether it was all male, all female, or mixed. The number of studies that focused on all female samples was one (n=1). However, nine studies mixed samples of both male and female participants (n = 9).

Measurement Approach (i.e., how at-risk for gang involvement was measured) involved classifying studies into two groups: 1) self-defined at-risk gang membership by answering directly whether or not the participant is at-risk or has been associated with a gang or 2) self-defined memberships by answering indirect questions to determine whether or not the participant is at-risk for joining a gang or has been associated with a gang. Those studies that asked the participant direct questions, such as, self-nomination for at-risk membership, were found to be empirically valid (Esbensen et al., 2001). Other direct statements and questions included: “If my friends join a gang, I might too,” “It’s OK to hang around gang members” or “Do you belong to a gang?”, “Do you wear gang colors?”, “Are you hanging out with gang members?”, and/or “Are you involved in gang fighting?” were coded as direct measures of gang membership. Nine of the studies used direct measurement and one study by Trumo (1993) was classified as “unknown” due to unavailable information.

Study Designs The designs of the studies were coded. Examples of design characteristics included group design, single case design or mixed design.

Finally, prevention measures were coded. The studies were separated by their respective measurement approaches (whether or not the study measured gang involvement directly or indirectly), studies were listed and described based on their

identified characteristics. Characteristics identified included location of study, total number of participants, ages or grade levels of participants, ethnic breakdown of participants, and gender of participants (Table 2). All 10 preventative programs were listed across the top of the chart with markers indicating whether or not the study found the identified program significant. Additionally, the effect sizes and outcome variables for each prevention factor were coded. The outcomes were coded as either effective or not effective.

Statistical Analysis

First, the effect sizes were calculated for each prevention measure of each study. This represented the difference in gang members versus non-gang members with that prevention program. A negative effect size indicates that the prevention methods were more effective compared to the results from the control sample. Then, the effect sizes for the overall domains were calculated. Mean effect sizes, upper and lower confidence levels (95%), and V values were computed.

All effect sizes were computed using the formulas given in Lipsey & Wilson, (2001) and Lyons (2003), so as to have a standard unit of effect size. To accomplish this in cases in which the authors reported effect sizes in terms of Cohen's d, transformation computations were made using the effect size calculator found on the Lyons' website: <http://www.lyonsmorris.com/MetaA/index.htm>. In cases where t, F, or χ^2 were given, the formulas presented in Lipsey & Wilson (pps. 172-200) were used.

Chapter IV

Results

Characteristics of Studies Reviewed

The methodological features of the 10 reviewed studies are reported in Table 2. As shown, 10 of the studies looked at populations who were directly associated with gangs and 1 of the studies was unknown. Moreover, 8 of the studies were specifically prevention methods and 3 of the studies involved prevention and intervention strategies. Furthermore, the locations of the study, and the ethnic and gender breakdowns of the studies are recorded when provided.

Prevention Factors Identified

A total of 6 prevention strategies had aspects that were identified as having a significant effect in preventing gang membership across the 10 studies. Table 3 lists the results of identified prevention methods across the 10 studies in five domains: family, school, peer group, structured programming, and a multi-level community approach. Of most importance, were the community-based prevention methods that were identified by eight studies.

For the most part, the reviewed studies were cross-sectional designs that reviewed whether a person was at-risk for gang membership, was currently in a gang, or had been involved in a gang in the past. The subjects involved were classified as either self-defined at-risk gang membership by answering directly whether or not they were at-risk or has been associated with a gang. Some participants participated as a general population because their school population was at-risk and participated in the study.

Furthermore, some of the studies had the subject's case managers or probation officers rate them on certain factors.

As discussed in the Methods section, effect sizes of each prevention factor of each study were identified for the purposes of this study. These effect sizes were then converted to a standard unit (d). Summary statistics were also computed for overall domains (i.e. prevention methods, and prevention and intervention methods) as well. See Table 4 for results. A negative Cohen's d indicates that the group that received prevention did better than the group that did not participate in the prevention program. If it is a positive d value, then it indicates that the control group did better on that particular outcome measure than the treatment group. Therefore, the magnitude of the d value, if negative, is an indicator of the relative effectiveness of a particular preventative factor and overall domain (Sheperis, C.J., Young, J.S., & Daniels, M.H., 2010).

Table 1: Studies Identified

Number	Name of Study	Author(s)	Publication Date	N
1a	Detention Diversion Advocacy: An Evaluation	Sheldon, R.	1999	542
1b	Detention Diversion Advocacy: An Evaluation	Sheldon, R.	1999	115
2	Community Based Gang Prevention & Intervention	Thurman, Q., Giacomazzi, A., Reisig, M. & Mueller, D.	1996	1107
3	Youth Gang & Schools: Need for Intervention & Prevention	Trump, K. S.	1993	950
4	Examining Delinquent Non-Gang Members & Delinquent Gang Mebers	Schram, P. & Gaines, L.	2005	282
5	Gang Resistance is Paramount (GRIP): Program Evaluation	Solis, A., Schwarz, W. & Hinton, T.	2003	735
6	Adapting the Gang Model: Peer Mentoring for Violence Prevention	Sheehan, K., DiCara, J., LeBailly, S. & Christoffel, K.	1999	125
7	Gang Prevention Programs for Female Adolescents	Williams, K., Curry, G.D., & Cohen, M.	2002	301
8	The Little Village Project: A Community Approach to the Gang Problem	Spergel, I. & Grossman, S.	1997	216
9	A Second's Chance: Gang Violence Task Force Prevention Program	Hughes, K.D., Griner, D., Guarino, M. & Williams, K.	2012	49
10	Evaluation of the GREAT Program: A School-Based Prevention Program	Ramsey, A., Rust, J. & Sobel, S.	2000	482

Table 2: Study Characteristics

Author (year)	Location	Total <i>n</i>	Age (grades) of Participants	Ethnic Breakdown of Participants
<u>Studies Directly Measuring Gang Involvement</u>				
Sheldon, R.	San Francisco, CA	N=452, N=115 N=115	14 to 21 14 and under ≥ 15	Hispanic (29.6%) Caucasian (12.7%) African American (50.7%)
Thurman, Q., Giacomazzi, A., Reisig, M. & Mueller, D.	Mountainlake Terrace, Washington	N=1107	10 to 21	Not Identified
Trump, K.S.	Ohio	N=950	12 to 18	Not Identified
Schram, P. & Gaines, L.	San Bernardino, CA	N=282	12 to 18	Hispanic (71.1%) African American (14.1%) white (14.1%)
Solis, A., Schwarz, w. & Hinton, T.	Paramount, CA	N=735	9 th Graders	African American (50.7%) Hispanic (29.6%) Caucasian (12.7%)
Sheehan, K., DiCara, J., LeBailly, S. & Christoffel, K.	Chicago	N=125	7-13; 14-21	Not Identified
Williams, K., Curry, G.D. & Cohen, M.	Pueblo, Colorado	N=301	8-19	Hispanic (95%)
Spergel, I. & Grossman, S.	Chicago, Illinois	N=216	17-24	Not Identified
Hughes, K.D., Griner, D., Guarino, M. & Williams, K.	North Carolina	N=49	10-19	Not Identified
Ramsey, A., Rust, J., & Sobel, S.	Tennessee	N=482	7 th /8 th grade	Not Identified

Table 3: Prevention Factors Identified

Prevention Factor Variables	Number	Authors (s)	Prevention Factors Looked At
Family Domain	1	Sheldon, R.	A, H, I, J, K, M, N
A Family counseling	2	Thurman, Q., Giacomazzi, A., Reisig, M. & Mueller, D.	H, G, J, M
B Parent Education programming	3	Trump, K. S.	J, O
C Conference call with parents	4	Schram, P. & Gaines, L.	A, J, K, L, O
School Domain	5	Solis, A., Schwarz, W. & Hinton, T.	A, B, C, D, N
D Anti-gang curriculum	6	Sheehan, K., DiCara, J., LeBailly, S. & Christoffel, K.	E
Peer Domain	7	Williams, K., Curry, G.D., & Cohen, M.	A, E, H, J, I, P
E Peer Mentoring program	8	Spergel, I. & Grossman, S.	J, K, M, N, O, Q
Structured Programming	9	Hughes, K.D., Griner, D., Guarino, M. & Williams, K.	A, F, J, O
F Dramatization (1x)	10	Ramsey, A., Rust, J. & Sobel, S.	D
G Weekend evening recreational center			
Multi-Level Community Based			
H Tutoring			
I Drug Counseling			
J Individual counseling			
K Case Manager			
L Nurse			
M Job Training			
N Recreational Activities			
O Police Involvement			
P Cultural Awareness/Community Service			
Q Community Leader Involvement			

Table 4: Prevention Factors and Overall Domains Meta-Analysis Statistics

Number	Intervention/Referral/Place	ES (d)	UCL(95%)	LCL
1a	OOH-Place	0.395	0.6287	0.1613
1b	≥ 3 prior refer	-0.514	-0.3016	-0.7268
1c	≥ 2 subse refer	-0.987	-0.7587	-1.2156
1d	≥ 2 subse petit	-0.887	-0.5505	-1.2226
1e	subse place	-0.197	0.0328	-0.4263
1f	OOH-Place	0.294	0.8976	-0.3102
1g	≥ 3 prior refer	-0.885	-0.2592	-1.5105
1h	≥ 2 subse refer	-1.176	-0.6570	-1.6942
1i	≥ 2 subse petit	-1.637	-0.5026	-2.7723
1j	subse place	-0.115	0.3524	-0.5832
1k	OOH-Place	0.372	0.6286	0.1146
1l	≥ 3 prior refer	-0.486	-0.2527	-0.7198
1m	≥ 2 subse refer	-0.899	-0.6416	-1.1568
1n	≥ 2 subse petit	-0.685	-0.3159	-1.0531
1o	subse place	-0.173	0.0953	-0.4421
2a	# calls N Zone (pre-post)	-5.100	-2.2423	-7.9570
2b	# calls N Zone (2 hr bef/dur)	-1.110	0.9955	-3.2155
2c	# calls N Zone (2hr aft/dur)	-3.060	-0.1725	-5.9475
2d	# calls N Zone (close/open)	-1.744	-2.2423	0.1360
3	Youth Gang Unit	-1.985	-0.8721	-3.0980
4a	Multidiciplinary Team (GPA)	-0.005	0.1605	-0.1697
4b	Multidiciplinary Team (abs)	0.056	0.2215	-0.1088
4c	Multidiciplinary Team (enroll)	-0.016	0.1490	-0.1813
4d	Multidiciplinary Team (credits)	0.155	0.3200	-0.0107
4e	Multidiciplinary Team (suspen)	-0.165	0.0009	-0.3299
4f	Multidiciplinary Team (I-GARF)	0.081	0.2458	-0.0846
4g	Multidiciplinary Team (P-GARF)	0.042	0.2074	-0.1229
4h	Multidiciplinary Team (T-GARF)	0.139	0.3044	-0.0262
4i	MDT Drug Prob After	0.213	0.4979	-0.0727
4j	MDT Alcohol Prob After	0.506	0.8409	0.1705
4k	MDT Drug Prob Before	0.240	0.7294	-0.2491
4l	MDT Alcohol Prob Before	0.602	0.8955	0.3080
4m	MDT Arrests After	0.021	0.2550	-0.2121
4n	MDT Petit Sus After	0.157	0.5795	-0.2661
4o	MDT Comp Probat After	-0.006	0.3343	-0.3461
4p	MDTComp Restit After	-0.108	0.3306	-0.5469
5a	GRIP - Consequence of Graffiti	-0.183	0.0087	-0.3741
5b	GRIP - Gang Effect on Family	-0.196	0.0633	-0.4560
5c	GRIP - Fight Over Territory	-0.337	-0.0817	-0.5927
5d	GRIP - Tattoo Causes Problems	-0.168	0.0298	-0.3666
5e	GRIP - Join Gang if Friends Join	-0.471	-0.1455	-0.7959
5f	GRIP - Not Big Deal Arrested	-0.105	0.1656	-0.3748
5g	GRIP - OK Hang w Gang Members	-0.210	-0.0057	-0.4138
5h	GRIP - OK Dress Like Gang	-0.192	0.0383	-0.4224
5i	GRIP - Feel Safer in Gang	-0.197	0.1695	-0.5640

Table 4: Prevention Factors and Overall Domains Meta-Analysis Statistics-Continued

5j	GRIP - OK w Parents Join Gang	0.000	0.4078	-0.4078
5g	GRIP - Drugs/Alcohol Gang Life	-0.320	-0.1341	-0.5060
5h	GRIP - Gang Violence	-0.215	-0.0213	-0.4092
5i	GRIP - Keep Sibling Away From Gangs	-0.290	-0.0673	-0.5131
5j	GRIP - Grad HS more than Gangs	-0.306	0.0154	-0.6267
6a	Peer Mentor-Expos/Accept Violence Af	-0.096	0.2626	-0.4535
6b	Peer Mentor-Expos/Accept Violence Be	0.017	0.3747	-0.3410
6c	Peer Mentor-Expos/Accept Violence Du	-0.013	0.3450	-0.3707
6d	Peer Mentor-Conduct Disorder Bef	-0.011	0.3468	-0.3689
6e	Peer Mentor-Conduct Disorder Aft	-0.336	0.6260	-1.2981
6f	Peer Mentor-Att toward violence Bef	0.010	0.3681	-0.3476
6g	Peer Mentor-Att toward violence Dur	-0.027	0.3308	-0.3849
6h	Peer Mentor-Att toward violence Aft	-0.067	0.2908	-0.4251
7a	Prog vs NonProg-Delinquency	-0.476	-0.1145	-0.8372
7b	Prog vs NonProg-Grades	0.301	0.6598	-0.0570
7c	Prog vs NonProg-Household relations	-0.150	0.2065	-0.5072
7d	Prog vs NonProg-School Relations	0.068	0.4242	-0.2887
7e	Prog vs NonProg-Per relations	0.093	0.4495	-0.2636
8a	Prevent/Control-Violent Crimes	-0.082	0.1093	-0.2725
8b	Prevent/Control-Arrests 3 yr	-0.306	-0.1159	-0.4953
8c	Coord serv vs comm worker/crimes	-0.959	-0.3893	-1.5280
8d	Comm Svcs vs comm work violent crime	-0.734	-0.1778	-1.2905
8e	Coord serv vs comm worker/Prop Crime	-0.948	-0.3848	-1.5107
8f	Coord serv vs comm worker/sell drugs	-1.132	-0.5623	-1.7010
8g	Comm Svcs vs comm work/Tot arrests	-0.533	-0.0263	-1.0395
8h	Comm Svcs vs comm work/GVRP Offens	-0.380	0.1226	-0.8820
8i	Comm Svcs vs comm work/Hotspots	-0.380	0.1226	-0.8820
8j	Comm Svcs vs comm work/Propty	-0.508	-0.0019	-1.0135
9a	Dramatiz of Gunshot Victim Positive Rs	-2.423	-1.6951	-3.1505
9b	Dramatiz of Gunshot Victim No Violation	-1.529	-0.8311	-2.2261
10a	GREAT-PrePost Friends in Gangs	-0.228	-0.0921	-0.3635
10b	GREAT-PrePost Relate Crie/Prejudice	-0.167	-0.0321	-0.3024
10c	GREAT-PrePost Culturally sensitive	-0.315	-0.1790	-0.4505
10d	GREAT-PrePost Drugs/Self Esteem	-0.166	-0.0306	-0.3010
10e	GREAT-PrePost Drugs/Peer Pressure	-0.222	-0.0867	-0.3574
10f	GREAT-PrePost Drugs/Money	-0.210	-0.0746	-0.3452
10g	GREAT-PrePost Drugs/Power	-0.329	-0.1936	-0.4653
10h	GREAT-PrePost Gangs/Peace	-0.227	-0.0919	-0.3627
10i	GREAT-PrePost Violence/Peace	-0.225	-0.0898	-0.3605
10j	GREAT-PrePost Gangs Hinder Goals	-0.148	-0.0125	-0.2828
10k	GREAT-PrePost GangsHonest Answers	-0.136	-0.0009	-0.2710
10l	GREAT-EX vs Cntl Doing told by Gangs	-0.755	-0.5486	-0.9612
10m	GREAT-EX vs Cntl Relate Crime/Prejud	-1.092	-0.8785	-1.3046
10n	GREAT-EX vs Cntl Drugs/Self Esteem	-0.816	-0.6087	-1.0235
10o	GREAT-EX vs Cntl Honest answers	-0.561	-0.3576	-0.7646

Analysis

An analysis of the descriptive factors helped identify the characteristics of the studies used in the meta-analysis. Table 1 provides a list of the 10 studies identified with prevention methods related to gang involvement. The studies were published between the years of 1991 to 2012 with sample sizes between 49 and 1107 participants. The studies were implemented across the country between the 10 studies, from California, Colorado, Illinois, North Carolina, Ohio, Tennessee, and Washington. The youngest subjects studied were age 7 and the oldest were 24. Finally, the studies differed in the ethnic make-up of their samples. At least three of the studies used African American samples, at least four samples examined Latino populations and one study used a 95% Latino sample. In conclusion, Table 2 demonstrated the variability within the study characteristics with a range of ethnicities, sample sizes, ages and locations among the 10 studies.

Table 3 presented the 5 prevention factors variables identified within the 10 studies and which specific studies used each prevention strategy. Multi-level community based methods were examined in eight studies, structured programming was examined in two studies, family focused was examined in two studies, school based was analyzed in two studies and peer mentoring was reviewed in one study. Multi-level community based prevention strategies had a large effect in programming in five studies. Four general prevention strategies revealed large effect sizes, including: (2) School, (4) Structured Programming and (5) Multi-level Community based strategies.

The result of a meta-analysis displays every study as a quantified means of an effect-size index. This study uses words such as "small", "medium" and "large" to describe the size of the effect. For example, given the mean (m) and standard deviation

(*sd*), one can calculate the effect size (*d*) that can be applied any meta-analysts to identify if there is a large (.8 of a standard deviation unit), moderate (.5 of a standard deviation), or small (.2 = a standard deviation unit) effect. Cohen's conventional criteria small, medium, or big are practically universal across many fields. The effect sizes were then used to determine the overall summary statistics. In this study, those prevention strategies with an Effect Size (ES) of a negative *d* value, with both of the upper and lower confidence intervals of 95% both being negative numbers, were identified as significant. Table 4 displayed the results discussed below for each prevention method.

In general, the summary statistics showed which prevention strategies were significant in preventing at-risk youth from joining a gang. When reviewing those prevention methods that were analyzed by more than one study, multi-level community based services, school-based curriculums and structured after school-based programming had a significant effect in deterring adolescents from joining gangs. Interestingly, however, the *d* value was relatively variable for aspects of two school based and multi-level community based prevention strategies, ranging from insignificant to largely significant components, which means that there was variability within the strategies.

The multi-variable prevention program with multi-level community-based programming and structured programming designs seemed to be the most significant. Of course, it is these programs that have the most varying components (ie. social services, counseling, opportunity provision, family services) and make it difficult to identify the most effective aspects of the strategy.

In summary, the 10 identified studies represented a variety of approaches to gang prevention applied across the country to analyze statistics for 5 types of prevention

programs. The strategies that incorporated aspects of both multi-level community based prevention strategies as well as structured based programming had the largest effect size (d value). The one peer-mentoring program examined had no effect size. Moreover, a community-based and family-focused program with extensive wrap around services including social services, healthcare, and counseling had an insignificant effect size. The meaning of these results will be explored in Chapter Five.

Chapter V

Discussion

Recent trends reveal that gang membership is on the rise in the United States. Each city affected by gang membership has a unique population and unique needs. Family members of gang members are devastated and communities feel the detrimental effects gangs have on their neighborhoods. Joining a gang is likely to lead to a path of serious delinquency. Therefore, gang involvement must be directly targeted because it remains an underlying step in the process.

It is still unclear why youth gang forms and what purpose they serve for the members. Gangs disband and disappear for reasons that are currently unknown. In fact, in some cities, youth members who join gangs actually leave the gangs within a year. Learning what exactly affected the members to walk away from the gang is critical information. Perhaps the gang was not fulfilling the void the member anticipated it would. Or, ideally, maybe a gang prevention program in place helped the youth member recognize that he or she needed to rethink this involvement.

As youth members are turning to gangs to fill social, emotional, or economic voids in their lives, appropriate gang prevention programs need to be implemented that will fulfill the community's specific needs. A harsh reality is that gang recruitment is taking place at earlier ages on school campuses. For this reason, schools need to be prepared to prevent gang membership and to be the first line of defense. As such, schools need to take a proactive role and apply universal prevention methods across all grade levels.

Many gang prevention programs are in place across the country. Currently it is

difficult to assess if one strategy will be effective across and within all areas of the nation. However, one of the most critical problems is that there needs to be reliable, well-documented, well-designed strategies to assess these existing programs empirically (Klein, 1993). The difficulty to bring this necessary change occurs due to a lack of relevant current research on prevention methods. Even more, there is limited information regarding how schools can relate the gang-prevention programming with specific risk factors relating to their communities. Many analysis methods use self-reporting measures for youth that can be unreliable or inaccurate. In this study, by assessing the effect sizes of 10 prevention strategies incorporated in cities across the country, more definitive claims and connections can be made.

Significance of Results

Examining various prevention strategies for at-risk youth using a meta-analysis, this study found that certain prevention programs within the community, including multi-level individualized programming and structured programming outside of school, as well as curriculums within the school at grade-wide levels, have significant results on impacting at-risk youths' perception of gangs. Moreover, these prevention strategies may even prevent youth from joining gangs as well. One study using a multi-level approach with community services found that the program was more successful in preventing the adolescent participants from having referrals to the court for new offenses. The Little Village Project, another community-based program, revealed large effects when comparing the number of self-reported crimes, property crimes, and the average days selling drugs among the control group versus the project's participants. The school-based

GREAT prevention program demonstrated significant results compared to control groups with regard to 7th and 8th graders' perceptions of crime and prejudice, and their views on drugs and self-esteem. These findings could imply that some educational curriculums are more effective, especially when targeted at grade levels that mark a critical junction in adolescents' lives.

At the same time, there were inconsistent findings that revealed some of the programming within the community and school environment had a small effect size if any effect at all. For example, the program targeted for adolescent females at a community level reflected a small effect size when examining the likelihood of the female participants engaging in delinquency. Moreover, the prevention program using intensive wrap around services indicated no effect related to the girls' school performance, delinquency, school relations, household relations, and peer relations. This inconsistency was illustrated in the Gang Resistance is Paramount educational program. This program revealed little if no effect sizes when responding to questions such as: "if my friends join a gang I might join too;" "it's OK for gangs to fight over territory;" "my parents wouldn't mind if I joined a gang;" "if my brother or sister wanted to join a gang I would try to talk them out of it;" "drug and alcohol are a big part of gang life;" or gang violence affects everyone."

The specific GREAT program offers a strategically-based, uniform curriculum over nine weeks. The prevention programs offered over the weekend with supervised recreational activities were statistically significant. For example, the Neutral Zone was effective based on the significant decrease in the number of service calls to the Mountain Lake Terrace Police Department. Over 50% of the youths interviewed in focus groups

already had a juvenile arrest record and nearly 75% reported they would partake in some form of “trouble” in the neighborhood if they were not at the Neutral Zone. The neutral zone could therefore be related to the fewer number of service emergency calls to the police when youth spent time at the Neutral Zone. This was true even two hours after the youth came home. This is substantiated by the fact that all youth reported they routinely participated in “legitimate activities” after leaving the program.

Another structured program using a true-to-life dramatized event, compounded with family and individualized counseling services, and police participation was also effective. Interestingly, while this program occurred only once, the power of its message seemed to truly affect the participants. Specifically, the participants were on probation and were less likely to engage in a probation violation following the experience.

Additionally, the family counseling component provided during the debriefing session helped provide another layer of the prevention. This may have implications for the notion that at-risk youth may need specialized programming as well community supports to engage their family members. This may be an area of interest for future research.

Yet, based on studies in this research, family focused prevention programs provided in conjunction with community-based wrap around services was also related to minimal significance. After the family-focused programs there was a small significance with regard to students admitting to being less likely to associate with a gang if a friend joined or being less likely to engage in drugs or alcohol after completion of the program. However, in rating scales related to the family, adolescents were no more likely to say their parents would mind if they joined a gang or that they would try to prevent their siblings from joining a gang upon completion of the prevention with a substantial family-

focused component. A study by McCallister (2011) found that at-risk youth were significantly less likely to join a gang based on the family setting, parental support, parental attachment to the children, and family structure. Perhaps, the reasons why family programs may not be effective may be related to the same reasons why the at-risk youth look to join gangs in the first place: limited financial and emotional support at home. For example, there were many parents who could not attend the available parent meetings within the programs due to a wide range of factors, such as the location of the meeting, scheduling conflicts with their jobs and caretaking responsibilities, and a lack of transportation.

The peer-related prevention programs had unimpressive findings. While positive role models may seem to lead to an effective solution, the study examined did not have any significance when comparing participants to the control group. This is in line with previous findings that the effect of peer influence was not a significant predictor for gang association. Moreover, research in a meta-analysis on protective factors against gang association concluded that commitment to positive peers was not found to be significant (McCallister, 2011). This reveals that perhaps rather than being influenced by a peer's actions and behavior, adolescents are more responsive to those adults in true leadership or authoritative positions, whether it be in the home, school, or community setting.

In conclusion, three domains proved statistically significant for preventing at-risk youth against joining a gang. Specifically, multi-level and structured programming within the community, as well as school strategies, demonstrated to be the most effective. Peer related programs, and family-focused programs were found to be the least

significant. The results of these studies are extremely applicable for prevention and intervention efforts applied within the community and school environment.

Previous studies have noted that the school environment may be the best place to deter gang membership among at-risk youth, especially before students are referred to law enforcement. Furthermore, the study suggests gang prevention efforts should mainly be concentrated on in the education setting. (McCallister, 2011). Granted, school is mandatory in the United States, and therefore it is the one place where all students have the potential to respond to prevention efforts. Schools have an opportunity, if not obligation to create a structure that will support gang prevention program implementation that is integral to the school. Moreover, these programs should be integrated with a strong policy to reduce aggression, vandalism and trancies at school.

Schools can address the community based contextual strategies and provide tutoring, social skills training, mentoring, after-school activities, clearly defined rules, and cultural awareness taught in the education. Schools can also implement the multi-level components often evident in the community setting, such as job placement, experience success, and increasing positive relationships through counseling (Mayer, 2010). In addition, educating students through research-based curriculums can prevent students from gang membership and aggressive behavior in general. Curriculums are constantly being improved and analyzed to strategically influence students. The school community plays a significant role for students in all aspects of life. Therefore, the results based on these studies should support more funding and programming efforts toward providing a comprehensive school climate for students to engage in opportunities and education that will lend at-risk students more to a successful life in general.

Limitations

Meta-analysis statistics is a valuable way to measure effectiveness; however, the results have also proven to be misleading. For example, while many researchers use Cohen's standards of "small," "medium," and "large," the truth is that these terms are relative to each other and to the area of prevention methods being studied in general. As such there is potential risk in applying these definitions to the results of the study. To compensate for this, this study focused looking at significant studies with "large" effect sizes to eliminate any potential ineffectiveness.

Another limitation is that this study examined prevention data from ten studies that may be misleading or premature. Some of the prevention studies' results have been analyzed for months, weeks, if not immediately after the prevention had been implemented. As a result, significant differences due to the programs may be exaggerated due to the proximity of the program, and may only indicate short-term effects. On the other hand, it is possible that results may not emerge until years after the program exposure. The results may be significant if there are lagged or "sleeper" effects from the program. This issue is crucial to consider when designing program evaluations in the future.

Upon further investigation, some prevention programs studied did not use random or blind assignment to either the participants in the treatment or participants in the control group. Some studies developmentally grouped students based on their grade levels in school. As a result, there may be a maturation effect based on students being taught during a critical year, as opposed to an effect from the actual treatment. Age maturation and program effects can interact to produce different results from older adults.

An example of inconsistencies can be observed in the results of the 10 prevention programs. Evidence of success was based on constructs that were uniquely defined to each study, ranging from self-questionnaires, to calls to the police department or referrals for Juvenile Detention. Furthermore, at this point in gang research, there are difficulties on the accuracy of self-reported gang membership. Another point is that some program authors will conclude that their program offers the most effective alternative to current law enforcement strategies such as curfews or police crackdown; the truth is that more evidence is needed to indicate that these other strategies were ineffective in the past or that they currently are ineffective (Thurman, Giacomazzi, Reisig, & Mueller, 1996). In this way, it is difficult to conclude if the varying effect sizes between studies were due to the actual prevention method or to how the results were collected and analyzed.

Implications for Future Research

Gang prevention programs must directly target at-risk youth in an effective and systematic way. As stated, gang membership can lead to a pathway of severe and violent delinquency. While there are promising results of gang prevention strategies, implementation needs to be strategic. Before implementing a program, schools and communities need to have a thorough assessment of their delinquent and gang activity to see how it affects their neighborhoods. Partnerships through the police schools, city businesses, churches, community service organizations, housing societies and criminal agencies should also be viewed in the future to see if they are relevant (Chatterjee, 2006).

The most critical problem is that once there are reliable, well-documented, well-designed programs, it is difficult to assess if these strategy will be effective across and within all areas of the nation. There is currently a lack of relevant current research on

prevention methods, and limited information regarding how schools can relate the gang-prevention programming with specific risk factors relating to their communities (Howell, 2004).

Moving forward, gang prevention strategies should use the fundamental factors that contribute to youth becoming involved. Specifically, researchers should examine the interaction of risk factors, motivation and opportunity, and protective factors and how they influence a youth's determination whether or not to become involved in a gang. Current research provides promising evidence protective factors, which in turn, pave the way for future prevention and intervention programs. For example, schools hold one of the most effective protective environments for at-risk youth gang involvement and can help students feel more connected and significant. Even more, schools can mobilize their human resources of teachers, counselors, psychologists, administration, and coaches that can help facilitate protective factors that may lesson the risk of gang membership. The United States blindly throws millions of taxpayer dollars every year not only to prevent, intervene, and suppress gang membership, but also to ameliorate the aftermath of gang violence and crime. Of course, this is spent with no avail. Yet with strategic financial investment in research based prevention, we can appropriately allocate financial resources to save money, and more importantly, lives.

The risk factors of adolescent behavior problems are relevant for those who are in gangs or those who are not in gangs. Regardless of the youth's membership, preventative measures inevitably provide support, guidance and services to help other members of the community who are at risk for gangs or delinquent behavior in general. This study provides further evidence that prevention methods should seek to move beyond family

and peer based strategies and instead should be provided across school domains with community resources.

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