Participation in Boys & Girls Clubs, vulnerability, and problem behaviors

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A B S T R A C T

Using a risk and resilience approach, this study examined the impact of participation in Boys & Girls Clubs on reducing vulnerability and problem behaviors among 297 youths aged 9 to 16 years of age. Structural Equation Modeling (SEM) was used to examine the relationships among the observed indicators of Club participation and poor self-concept and the latent constructs of vulnerability and problem behaviors. Results indicate that participation in Boys & Girls Clubs had a small, but significant relationship with a decrease in poor self-concept. Poor self-concept was in turn directly related to increased vulnerability; and increased vulnerability was related to increased problem behaviors. These findings point to the importance of Boys & Girls Clubs and other youth development organizations in promoting positive self-concepts to help decrease vulnerability and problem behaviors among program participants.

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1. Introduction

Youth development organizations are charged with providing programs that prevent and deter multiple problem behaviors including alcohol and drug use, juvenile delinquency, violent crime, school dropout and failure, and teenage pregnancy. Participation in these programs is linked to decreases in these and other problem behaviors (Catalano, Berghlund, Ryan, Lonczak & Hawkins, 1999; Durlak & Weissberg, 2007; Eccles & Gootman, 2002; Lauer et al., 2006; Roth, Brooks-Gunn, Murray & Foster, 1998). The mere provision of a program, however, does not necessarily guarantee the positive outcomes that a program is held accountable for will occur. In fact, the specific mechanisms underlying these programs and their relationships to positive outcomes are still unclear (Anderson-Butcher, Newsome & Ferrari, 2003; Eccles & Gootman, 2002; Fashola, 1998; Lauer et al., 2006). In response, this study explores whether participation in a chartered Boys & Girls Club of America (BGCA) program decreases vulnerability which in turn deters problem behaviors among youths.

2. Literature review

A risk and resilience framework provides a useful method for investigating benefits associated with youth development programming because it provides a theory-driven perspective related to how specific experiences or conditions relate to healthy youth outcomes (Anderson-Butcher et al., 2003; Anthony et al., 2009; Guerra & Bradshaw, 2008). To ensure consistency in understanding, it is important to define the risk and resilience constructs. Risks, or risk factors, are defined as experiences or conditions that increase the likelihood of the occurrence of problem behaviors (Hawkins, Catalano & Miller, 1992; Jenson & Fraser, 2006). Protective factors are characteristics or conditions that decrease the likelihood of the occurrence of problem behaviors; or that minimize the effects of risks (Jenson & Fraser, 2006).

Previous research (Hawkins et al., 1992; Smith & Carlson, 1997) documents the mediating and moderating influences of both of these factors on behavioral outcomes (i.e., academic failure, substance use, juvenile delinquency, etc). For instance, family and individual risk factors such as rebelliousness, family conflict, and attitudes toward drugs and alcohol are known to increase the likelihood that youths will engage in problem behaviors (Hawkins et al., 1992; Smith & Carlson, 1997). Protective factors such as self-esteem, feelings of belonging, and the availability and rewards for prosocial activities can alter or nullify youths’ responses to risks that predispose them to problem behaviors (Fraser, 2004; Lawson & Anderson-Butcher, 2001; Smith & Carlson, 1997; Rutter, 1987). Essentially, resilience, defined as ones’ ability to thrive when faced with adversity (Benard, 2004), is the product of a cumulative, interactive process involving risk and protection (Anthony et al., 2009). In the end, however, all individuals experience some level of vulnerability that exemplifies the degree of balance (or imbalance) between risk and protective factors (Spencer, 2006).

2.1. Youth development programming

Key youth development principles identified in the literature clearly point to practices involving the reductions in risk, enhancements in
protection, and resultant resilience. Several authors suggest, for example, that youth development programs reduce risk by providing supervision, serving as safe havens, altering attitudes and beliefs, and providing family support (Anderson-Butcher, Midle, Hansford, Fallara & Grotevant, 2004; Eccles & Gootman, 2002; Halpern, 2000; Halpern, Barker & Mollard, 2000). Effective programs also enhance protection by promoting bonding between youths and adults; fostering social, emotional, cognitive, behavioral, and moral competence; increasing self-efficacy; providing recognition for positive behaviors; offering opportunities for prosocial involvement; and establishing prosocial norms (Catalano, et al., 1999; Halpern, 2000; Halpern, et al., 2000; Hirsch, Roffman, Deutsch, Flynn, Loder, & Pagano, 2000; Eccles & Gootman, 2002). Furthermore, recent meta-analyses point to the promise of these programs and settings. For instance, Durlak and Weissberg (2007) found that participants in after-school programs improved significantly in self-perceptions and attitudes towards school, behavioral adjustment, and school performance. Lauer et al. (2006) found strong support for out-of-school-time programs and their relationship with student achievement, especially ones with tutoring and academic components.

Few studies to date, however, explore the interrelationships among risk and protective factors and problem behaviors, especially in relation to understanding the various mediating and moderating mechanisms operating within these important developmental contexts (Anderson-Butcher et al., 2003; Anthony, et al., 2009). Given that participation in youth development programs is linked with risk, protection, and resultant problem behaviors (Anthony, et al., 2009), the utilization of a risk and resilience framework is helpful for further exploring these various mechanisms. The particular program of interest here is a chartered Boys & Girls Club of America (BGCA) program.

2.1.1. Boys & Girls Clubs of America

The mission of the Boys & Girls Clubs of America (BGCA), the national organization, at large is “to inspire and enable all young people, especially those from disadvantaged circumstances, to realize their full potential as productive, responsible, and caring citizens” (BGCA, 2007, p. 2). Affiliated Clubs across the nation are community-based non-profit organizations with an overall goal of promoting positive youth development. More specifically, BGCA programs focus on developing social competence through six core program areas, including: character and leadership development, health and life skills programs, education and career development, arts programming, sports, fitness, and recreation, and specialized initiatives. As of 2007, there were 4300 Club locations within the 50 states serving over 4.8 million youths (BGCA, 2008). Clubs primarily exist as stand-alone facilities (47%) however, in some places the programs are co-located in schools, public housing units, military bases, reservations, churches, detention centers, and shopping malls (BGCA, 2007). Clubs operate from an open door policy perspective, youths participate on voluntary, drop-in bases, and costs for participation are minimal.

Several key elements associated with BGCA programming are described in other research (Anderson-Butcher, Lawson, Fallara, & Furano, 2002; Kaltreider & St. Pierre, 1995). For example, youth participants note the importance of the Clubs in providing opportunities for leadership, relationships with caring adults, and prosocial peer groups. Youth participants identify the following opportunities available at the Clubs: places where they can display leadership qualities, programs where they can be actively involved in design and implementation features, and institutions where feelings of ownership and commitment occur (Anderson-Butcher et al., 2002; Roffman, Pagano, & Hirsch, 2001). Enjoyment experiences at the Club are also related to enhanced self-esteem, positive staff–youth relationships, and better emotional and behavioral outcomes (Roffman, et al., 2001).

Research also documents the relationship between participation in the BGCA program and key youth development outcomes. For instance, Schinke, Cole, & Poulin (2000) found that youths who attended the Clubs did better academically as compared to youths who attended after-school programs without structured educational components. These authors note the added benefit of Project Learn, BGCA’s national educational program. Another study conducted by Schinke, Orlandi, and Cole, (1992) examined the importance of the BGCA’s substance use prevention SMART programs. Public housing units that had a Club and the SMART prevention program were compared with public housing units with only traditional Clubs and units without Clubs or SMART programs. Findings suggest the importance of Clubs in reducing substance use, drug trafficking, criminal behaviors, and property destruction within the housing units. Little added benefit was noted in relation to SMART.

St. Pierre and colleagues (St. Pierre, Kaltreider, Mark, & Aikin, 1992; St. Pierre, Mark, Kaltreider, & Aikin, 1997) also examined the importance of specific BGCA programs through their research on the Stay SMART and SMART Kids programs. They found each was beneficial in enhancing attitudes, refusal skills, and knowledge and that Club participants attending the SMART programs reported less substance use than non-attending Club youths. In a separate study, youths attending the Stay SMART program with an added abstinence focus reported more appropriate behaviors and attitudes toward sexual activity than youths not attending the program (St. Pierre, Mark, Kaltreider, & Aikin, 1995). Additional support was found by Arbreton and McClanahan (2001). They found that attendance in Clubs with BGCA Gang Prevention and Targeted Outreach programs was associated with delayed onset of gang behavior, less delinquent behaviors, and improved school outcomes.

Most research to date within the BGCA has examined the impacts of participation in structured programs within Clubs such as SMART, Project Learn, or Gang Prevention and Targeted Outreach, as opposed to results accruing due to overall participation (Anderson-Butcher et al., 2003). Few studies, however, have examined what benefits occur as a result of attendance in less structured, non-program specific BGCA activities. Understanding the role of attendance is especially important given that previous research has found that the most common type of participation in Clubs is described as “hanging out” experiences in game rooms and non-directed activities (Anderson-Butcher et al., 2003).

There are a few studies that examine overall BGCA involvement. For instance, St. Pierre, Mark, Kaltreider, and Campbell (2001) found that youths improved their refusal skills, problem solving abilities, courteousness with teachers and school personnel, and ethical behaviors as a result of participation in a structured BGCA program that included tutoring, recreation, snacks, teacher involvement, and SMART Kids. Anderson-Butcher et al. (2003) examined differences between low, moderate, and high BGCA attendees. They found that youth in the high and moderate attendee groups displayed greater academic achievement, stronger positive attitudes toward school, and less alcohol and cigarette use than those youths in the low attendee group. Anderson-Butcher and Fink (2005) found that perceptions of belonging to the BGCA, more important than attendance, were significantly related to enhanced protection and reduced risk, and decreased problem behaviors.

In review, the majority of studies on BGCA have focused primarily on evaluating outcomes associated with specific programs offered at Club sites (i.e., Project Learn, SMART Programs). A few have begun to examine impacts associated with overall Club participation. More studies examining outcomes associated with overall participation in BGCA Clubs are needed. It is also clear that few studies explore attendance in BGCA impacts on outcomes and also include a risk and resilience interactive framework, and little is known about the mediating and moderating influences that create program outcomes. As such, this present study contributes to the current knowledge base through examining the mediating and moderating influences of BGCA attendance, through the use of Structural Equation Modeling, on youth outcomes.
3. Methodology

3.1. Procedures

Youths participating in one chartered BGCA located in an urban intermountain west community (population of approximately 77,000) were recruited for the study. This Club had been in existence for over 30 years and was in compliance with the BGCA’s national standards and guidelines. There were approximately 505 youths attending this Club on a regular basis during the study’s two month recruitment stage. Fifty-five percent of these youths were Caucasian, 29% Hispanic, 6% African American, 6% Native American, 1% Asian American/Pacific Islander, and 3% “Other.” All were potential study participants and approached by Club staff and asked to participate. A total of 216 youths (43%) received signed parent/guardian consent and provided assent for participation.

In an attempt to recruit participants who were not engaged in Club activities, youth who lived in a nearby apartment complex, where many of the Club attendees also lived, participated in the study. Club staff recruited approximately 70 youths to also participate in the study. Fifty seven received parent/guardian consent and participated in the study, representing an 81% response rate. Another 36 youths were recruited from a local school’s health education class, (representing 95% of the potential youths recruited from this class). Many youths that attended the local Club also attended this school.

Youths completed questionnaires assessing various risk and protective factors and problem behaviors. Questionnaires took approximately 40 min to complete. For some participants, the questionnaires were administered in multiple sessions to maintain attention span and motivation. A small incentive (i.e., soda pop, candy bar, etc.) was provided upon completion of the questionnaire. To control for acquiescent response set and social desirability bias, youths were asked “How honest were you in filling out this survey?” Data from youths who indicated they were honest “once in awhile” and “not at all” (n = 9) were dropped. Additionally, 3 nine-year-old Club participants were excluded because of a lack of understanding, as noted by the person distributing the surveys.

3.2. Sample

Table 1 provides demographic data on the n = 297 participants who submitted usable data. Table 1 also shows a comparison of this study’s sample of participants as compared to national statistics on participants in the BGCA more globally.

Seventy one percent of the final sample were Club participants (n = 212) and 29% were recruited from outside the Club (n = 87). Study participants ranged in age from 9 to 16 years with an average age of 11.3 years (SD = 2.23 years). There were 148 females and 149 males indicating a split sample for gender. Forty-five percent were Caucasian, 36% Hispanic, 7% African American, 7% Native American, 1% Asian American/Pacific Islander, and 4% were classified as “Other.” Fifty percent of the participants lived in a single parent home, and 24% of the participants reported limited English proficiency. As presented in Table 1, these demographics reflect the characteristics of the youths participating in the Club at large, but differ somewhat from the participants served nationally by BGCA.

3.3. Measures

Youths completed the entire Utah Division of Substance Abuse Needs Assessment Survey (UDSANAS; Social Research Institute, 1997). This instrument provides a comprehensive assessment of various risk and protective factors and problem behaviors. This instrument is modeled after the Student Survey of Risk and Protective Factors Instrument (Arthur, Pollard, Hawkins and Catalano, 1997; Pollard, Catalano, Hawkins, Arthur and Baglioni, 1999) and is deemed reliable and valid (O’Donovan, 1996; Social Research Institute, 1997). Several confirmatory factor analyses (CFA) were conducted in order to create the latent variables of vulnerability and problem behaviors.

The following section provides an overview of how the latent constructs were modeled. Table 2 provides an overview of the scale items and variables, providing item descriptions, range of scores, means and standard deviation, and Cronbach’s alpha for each of the observed and latent constructs and the variables associated with it.

3.3.1. Vulnerability

The vulnerability factor is based upon Blum, McNeely and Nonnemaker’s (2002) definition where vulnerability is defined as an “interactive process between the social contexts in which a person lives and a set of underlying factors that, when present, place the youth person ‘at risk’ for negative outcomes” (Blum et al, 2002, p. 28). It parallels definitions suggesting that risk and protective factors are

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1 Chi-square and t-test analyses tested for differences between the youths recruited at the Club versus those youths recruited from the neighborhood. There were no significant differences between groups on gender, ethnicity, and parents’ level of education. However, the Club attendees were more likely to have limited English proficiency, come from a single parent family, and be younger in age. Findings should be interpreted with these differences in mind.

2 The step-by-step CFA process is presented elsewhere (Anderson-Butcher & Conroy, 2001). Please contact the author for more complete information.

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**Table 1**

Sample characteristics.

<table>
<thead>
<tr>
<th>Study participants (n = 297)</th>
<th>BGCA (2007) nationally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>Under age 7 years old</td>
<td>11%</td>
</tr>
<tr>
<td>7 to 9 years old</td>
<td>26%</td>
</tr>
<tr>
<td>10 to 12 years old</td>
<td>29%</td>
</tr>
<tr>
<td>13 to 15 years old</td>
<td>21%</td>
</tr>
<tr>
<td>16 to 18 years old</td>
<td>1%</td>
</tr>
<tr>
<td>Over 18 years old</td>
<td>2%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>50%</td>
</tr>
<tr>
<td>Female</td>
<td>50%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>45%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>36%</td>
</tr>
<tr>
<td>African American</td>
<td>7%</td>
</tr>
<tr>
<td>Native American</td>
<td>7%</td>
</tr>
<tr>
<td>Asian American/Pacific Islander</td>
<td>1%</td>
</tr>
<tr>
<td>Multi-racial</td>
<td>7%</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Table 2**

Overview of scale items and variables.

<table>
<thead>
<tr>
<th>Construct variable</th>
<th># of items</th>
<th>Range</th>
<th>Mean (SD)</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Participation (days)</td>
<td>1</td>
<td>0–114</td>
<td>22.55 (30.80)</td>
<td>n/a</td>
</tr>
<tr>
<td>2. Poor self-concept</td>
<td>22</td>
<td>0–5</td>
<td>3.78 (1.02)</td>
<td>.91</td>
</tr>
<tr>
<td>3. Vulnerability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>–Community rewards</td>
<td>3</td>
<td>1–4</td>
<td>2.51 (.93)</td>
<td>.89</td>
</tr>
<tr>
<td>–Family attachment</td>
<td>4</td>
<td>1–4</td>
<td>3.00 (.82)</td>
<td>.84</td>
</tr>
<tr>
<td>–Low school commitment</td>
<td>4</td>
<td>1–4</td>
<td>2.33 (.50)</td>
<td>.76</td>
</tr>
<tr>
<td>–Favorable attitudes to drugs/alcohol</td>
<td>5</td>
<td>1–4</td>
<td>3.33 (.66)</td>
<td>.88</td>
</tr>
<tr>
<td>–Social skills</td>
<td>4</td>
<td>1–4</td>
<td>3.16 (.69)</td>
<td>.67</td>
</tr>
<tr>
<td>4. Problem behaviors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>–Academic failure</td>
<td>2</td>
<td>1–4</td>
<td>2.11 (.79)</td>
<td>.76</td>
</tr>
<tr>
<td>–Cigarette use</td>
<td>1</td>
<td>1–7</td>
<td>1.22 (.84)</td>
<td>n/a</td>
</tr>
<tr>
<td>–Alcohol use</td>
<td>1</td>
<td>0–1</td>
<td>.15 (.35)</td>
<td>n/a</td>
</tr>
<tr>
<td>–Marijuana use</td>
<td>1</td>
<td>0–1</td>
<td>.11 (.32)</td>
<td>n/a</td>
</tr>
<tr>
<td>–Gang involvement</td>
<td>3</td>
<td>0–1</td>
<td>.63 (1.62)</td>
<td>.57</td>
</tr>
</tbody>
</table>
not dichotomous variables and the resultant balance among factors present is of critical importance (Kaplan, 1996; Spencer, 2006).

Items from the UDSANAS (Social Research Institute, 1997) were used to measure the various risk and protective factors encompassed within vulnerability. The following subscales served as indicators of the latent variable, Vulnerability: Community Rewards for Prosocial Involvement, Family Attachment Low School Commitment, Favorable Attitudes Toward Alcohol and Drugs, and Social Skills.

Community Rewards for Prosocial Involvement included three items: my neighbors notice when I am doing a good job and let me know; there are people in my neighborhood who encourage me to do my best; and there are people in my neighborhood who are proud of me when I do something well. Family attachment included four items, including if he/she feels very close to his/her mother, if he/she feel very close to his/her father; if he/she shares thoughts and feelings with his/her mother and if he/she share thoughts and feelings with his/her father. Low Commitment to School was measured through four items. Youths indicated how often over the past year of school did he/she enjoy being in school; hate being in school; try to do their best in school; and felt the school-work assigned was meaningful –

3.3.2. Problem behaviors

The Problem Behavior latent construct was measured with five problem behaviors including alcohol, marijuana, and cigarette use, academic failure, and gang involvement. These problem behaviors were chosen because they are often targeted outcomes within BGCA programs (Anderson-Butcher et al., 2003; St. Pierre et al., 1992). Again, the UDSANAS was used to measure drug, alcohol, and cigarette use. Youths were asked to rate on how many occasions (if any) he/she had used alcohol, cigarettes, and marijuana in the past 30 days. The Academic Failure subscale was comprised of two items including describing what his/her grades were like during the last year. The youth also reported if his/her school grades were better than the grades of most of the students in his/her class. The Gang Involvement subscale asked the youth if he/she had ever belonged to a gang, if yes, his/her age at first membership, and if his/her best friends had been gang members in the past year.

3.3.3. Participation

Frequency of participation within a six month period (January to June) was retrieved from data files at the local Club. Youths recruited from outside the Club received a zero for participation unless their name appeared in program records at the Club. In this case, their participation reflected the total number of days their name appeared in the data files. Attempts were made to decipher what types of programs youths actually participated in at the Club; however, many program specific records at the Club were non-existent and others were identified by Club staff as unreliable. In addition, three other indices of participation were collected, including two self-report items assessing attendance during the past 7 days and in general; as well as a five item assessment of belonging to the program (Anderson-Butcher & Conroy, 2002). These items, however, did not load well with the 6 month attendance variable; and therefore only a 6 month frequency data comprised the Participation observed variable.

3.4. Data analyses

SEM was used to determine the relationship between the latent factors and observed variables (Byrne, 1994). Several absolute and incremental fit indices were examined to assess model fit, including the chi-square statistic, Goodness-of-Fit (GFI) Index, Incremental Fit Index (IFI), the Comparative Fit Index (CFI), the Standardized Root Mean Residual (SRMR) and the Root Mean Squared Error of Approximation (RMSEA).

A measurement model was initially tested to determine if the fit of the latent structures in the model. A Confirmatory Factor Analysis (CFA) was conducted to establish factorial validity of Vulnerability. In the end, the factor demonstrated excellent factorial validity as measured by its fit indices \( \chi^2 = 11.13, df = 9, \chi^2/df = 1.24, \) RMSEA = .03 (90% CI = .00-.07), CFI =.99, IFI =.99, GFI =.99. A CFA also examined the fit of the latent variable, Problem Behaviors. The variable exhibited excellent factorial validity: \( \chi^2 = 5.17, df = 5, \chi^2/df = 1.02, \) RMSEA = .01 (90% CI =.00-.08), CFI =.96, IFI =.99, GFI =.999. Additionally, Table 3 highlights the inter-item correlations among variables. Missing values were replaced through mean imputation.

The specific Structural Equation Model examined the daily participation in one chartered BGCA Club on risk and protective factors through the latent structured called vulnerability. Vulnerability was then modeled to impact outcome problem behaviors. Problem behaviors of particular concern here include substance use, gang involvement, and academic failure, all which are often targeted outcomes associated with BGCA and youth development programming in general (Anderson-Butcher et al., 2003; St. Pierre et al., 1992).

4. Results

The original structural model included direct paths from Participation to Vulnerability, Participation to Problem Behaviors, and from Vulnerability to Problem Behaviors. The path between Participation and Vulnerability was significant \( p<.05 \), but small \( (r=.14) \); the path between Vulnerability and Problem Behaviors was significant \( (r=.77; p<.01) \). Mediation was found as the path from Participation to Problem Behaviors approached zero \( (r=.05) \). This model had adequate, but semi-optimal fit \( \chi^2 = 120.27, df = 53, \chi^2/df = 2.27, \) RMSEA = .066 (90% CI = .05-.08), CFI =.88, GFI =.88, IFI =.94. To test if this relationship was non-recursive, a model examining the direct paths of Vulnerability to Problem Behaviors and Participation to Problem Behaviors was examined, \( \chi^2 = 125.40, df = 53, \chi^2/df = 2.37, \) RMSEA = .069 (90% CI = .05-.08), CFI =.86, GFI =.84, IFI =.89. The path between Vulnerability and Problem Behaviors was positive and significant \( (r=.61; p<.01) \); whereas the path between Problem Behaviors and Vulnerability was non-significant \( (r=.10; p>.05) \). Within the original model, it appeared that the indicator, poor self-concept, did not fit well on the latent variable, vulnerability. As such, the original model was retested with the poor self-concept indicator removed from the vulnerability latent structure, \( \chi^2 = 98.50, df = 42, \chi^2/df = 2.35, \) RMSEA = .069 (90% CI =.05-.08), CFI =.89, GFI =.89, IFI =.94. A similar fit to the original model was found, however, the path between participation and vulnerability was no longer significant. The removal of poor self-concept had an impact on the model’s overall significance. As such, two additional models were tested that included poor self-concept as an observed variable. One model explored the direct paths from Participation to Vulnerability \( (r=.11) \), Participation to poor Self-Concept \( (r=-.160) \), Vulnerability to Problem Behaviors \( (r=.839) \), and poor Self-Concept to Problem Behaviors \( (r=.168) \). All paths except the one from Participation to
Table 3
Zero order correlations.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Participation</td>
<td></td>
<td>.15**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>B. Community rewards</td>
<td></td>
<td></td>
<td>.37*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Family attachment</td>
<td></td>
<td>.06</td>
<td></td>
<td>.33**</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>D. Low school commitment</td>
<td></td>
<td></td>
<td>.35*</td>
<td>.35**</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>E. Fav. attitudes to drugs/alcohol</td>
<td></td>
<td>.04</td>
<td>.27**</td>
<td>.26*</td>
<td>.50**</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>F. Social skills</td>
<td></td>
<td>.13*</td>
<td></td>
<td>.36**</td>
<td>.39**</td>
<td>.52**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Poor self-concept</td>
<td></td>
<td>.18**</td>
<td>.31</td>
<td>.20**</td>
<td>.21*</td>
<td>.17*</td>
<td>.21**</td>
<td></td>
<td></td>
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<tr>
<td>H. Alcohol use</td>
<td></td>
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<td>.09</td>
<td>.20**</td>
<td>.17**</td>
<td>.34*</td>
<td>.51**</td>
<td>.54**</td>
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<td></td>
<td></td>
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<tr>
<td>I. Marijuana use</td>
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<td>.03</td>
<td>.25**</td>
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<td>J. Cigarette use</td>
<td></td>
<td>.06</td>
<td>.27**</td>
<td>.23**</td>
<td>.37*</td>
<td>.53**</td>
<td>.41**</td>
<td>.22**</td>
<td>.50**</td>
<td>.63**</td>
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<td>K. Academic failure</td>
<td></td>
<td>.01</td>
<td>.15**</td>
<td>.37**</td>
<td>.44*</td>
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<td>.37**</td>
<td>.20**</td>
<td>.32**</td>
<td>.37**</td>
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</tr>
<tr>
<td>L. Gang involvement</td>
<td></td>
<td>.08</td>
<td>.12*</td>
<td>.19**</td>
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<td>.41**</td>
<td>.41**</td>
<td>.26**</td>
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Note: *p<.05; **p<.01.

Vulnerability were statistically significant \( \chi^2 = 123.64, df = 52, \chi^2/df = 2.38, \text{RMSEA} = .07 (90\% \text{ CI} = .5-.08), \text{SRMR} = .06, \text{CFI} = .87, \text{IFI} = .87, \text{GFI} = .94\). The best fit, however, was found with the second model. It explored the direct path from Participation to poor Self-Concept, a path from poor Self-Concept to Vulnerability, and one from Vulnerability to Problem Behaviors. \( \chi^2 = 120.27, df = 53, \chi^2/df = 2.27, \text{RMSEA} = .07 (90\% \text{ CI} = .5-.08), \text{SRMR} = .06, \text{CFI} = .88, \text{IFI} = .88, \text{GFI} = .95\). This structural model is presented in Fig. 1.

The path from Participation to poor Self-Concept was significant \(p<.05\) and negative \((-1.60)\), indicating that as attendance in the program increases, youths' self-concept also increased, or conversely, as Club Participation increases, poor Self-Concept decreases. The path from poor Self-Concept to Vulnerability was positive and significant \(2.39; p<.05\). This suggests that as Self-Concept decreases, one's Vulnerability towards displaying Problem Behaviors increases. Finally, the path between Vulnerability to Problem Behaviors was positive and significant \(0.869; p<.01\), indicating that as Vulnerability increases so do Problem behaviors.

5. Discussion

The study findings indicate that involvement in the Club was particularly important in developing positive self-concepts among youth participants. Self-Concept in turn impacted youths' Vulnerability: and Vulnerability was then related to outcome Problem Behaviors. This provides some evidence to the importance of Clubs and their program activities could have on creating positive outcomes. As programs further target the development of self-concept among youth participants, it is likely that these enhancements will consequently create reduced risk, enhanced protection, and decreased negative outcomes.

### 5.1. Limitations

Although findings are promising, the results of this study should be interpreted with caution. The study did not use a random sample which affects the ability to generalize and also did not use random assignment and therefore, pre-selection biases may be present. The study relied on daily attendance records which may have limited reliability and validity. The attendance measure did not include time spent in activities, involvement in specific Club programs, program strength, or degree of actual youth engagement. This has implications for adequately ensuring BCGA program implementation fidelity.

The measurement of self-concept is a general and global one, including youths’ perceptions of self-taken as a whole (i.e., I am friendly, courteous, etc). Other researchers have argued that self-concept is multidimensional and hierarchical (Hattie, 1992; Marsh & Shavelson, 1985; Wigfield, Eccles and Pintrich, 1996). There is a general self-concept that has nested within it more specific lower order characteristics evident in domain areas such as in academics, peer networks, the family, and the physical.

Questionnaires relied on self-reports, however methods were used to control from social desirability and acquiescent response set biases. The examination of different risk and protective factors, as well as a more comprehensive measure of self-concept, is needed. Cross-validation with other samples would also help indicate whether the model is truly representative. Finally, the fit within the present model was semi-optimal. New models examining the underlying mechanisms promoting positive outcomes in youth development programming are needed.

### 5.2. Implications

The present study adds to the current knowledge base about youth organizations (Anderson-Butcher et al., 2003; Catalano et al., 1999; Roth et al., 1998), and suggests that youth development organizations

![Fig. 1. Model.](Image)
such as BGCA serve as important institutions that can contribute to positive youth outcomes. Participation in this Club specifically is related to youths’ perceptions of overall self-concept. The path between Participation and Self-Concept is small but significant; however, the relationship of Self-concept to Vulnerability and consequently Problem Behaviors is relatively strong. This implies that small changes in the development of self-concept among participants might indeed produce large changes in vulnerability and outcome problem behaviors. As such, findings implicate the further promotion of self-concept within BGCA and other youth development programming. This finding can also be interpreted within the risk and resilience framework. The resilience factor of self-concept may be a protective factor that offsets the influence of other risk factors. This finding is consistent with the findings of the previous research on the role of protective factors in reducing problem behaviors (and highlighted in the literature review) (Fraser, 2004; Lawson & Anderson-Butcher, 2001; Smith & Carlson, 1997; Rutter, 1987).

The importance of self-concept suggests that program staff within these programs might more specifically target the development of a youth’s self-concept in multiple domains. The specific domains include, building positive self-beliefs and perceptions related to academic achievement, physical skill and appearance, and peer, family, and community relations. A focus on these “building blocks” (Hattie, 1992, p. 95) underlying general self-concept might in turn produce additional valuable outcomes among youths. As Wigfield et al. (1996) conclude, enhancements in self-concept produce valuable outcomes in domain areas; and simultaneously achievement in these contexts further fosters the development of self-concept.

Research findings also support that self-concept is value laden, situational, and influenced by significant others (Harter, 1998; Hattie, 1992; Marsh & Shavelson, 1985; Wigfield, et al., 1996). These characteristics of self-concept implicate its malleability particularly within various environments and contexts. Programs might also consider stressing the importance of the youths’ self-perceptions within specific domain areas (i.e., academics, family, etc.) through targeted program activities, as well as through modeling and reinforcement provided by program leaders/staff, peers, and program volunteers. Alterations in values placed on self-concept within certain contexts would most likely have motivational consequences, potentially creating incentives, intrinsic motivation, norms, and scripts for prosocial behaviors in these arenas (Hattie, 1992).

The risk and resilience framework was consistent with the findings from this research. Self-concept, even in a general form, can be viewed as a protective factor and have influence on other outcomes. The findings from this study demonstrated that there was a relationship between self-concept on reducing problem behaviors. One would hypothesize that over time if the protective factors (not limited to only those in this study) continue to increase there should be an inverse relationship with risk factors and problem behaviors. This hypothesis though needs to be addressed through future research.

5.3. Future research

These findings related to self-concept and its relation to positive outcomes within youth development programs should be considered in future research. It would be important to explore whether targeted programming aimed at developing self-concept in specific domain areas further decreases vulnerability and deters problem behaviors. Further examination of other self-related constructs, such as self-schemata, self-esteem, and perceptions of competence, might also provide additional insights related to the mechanisms underlying healthy youth development. It might also be useful to examine future-oriented components of self-concept through possible selves theory (Lee & Oyserman, 2009; Markus & Nurius, 1986). In addition, future research should use SEM to further examine other mechanisms through which involvement in these programs creates positive youth outcomes. For instance, examining the contributions of risk factors and protective factors independently, as opposed to collapsing them into one latent structure, may create different effects.

6. Conclusion

Findings from this study indicate that participation in BGCA is related to the development of a general level of self-concept. Poor self-concept was related to vulnerability, which in turn was strongly related to youths’ problem behaviors. Results imply that small changes in self-concept could potentially increase the indirect effects of participation on vulnerability and problem behaviors. Youth development organizations should consider the development of self-concept in domain areas as a critical component of their program content and strategy. Enhancements in this protective factor may produce important changes in vulnerability and problem behaviors among youths.

Given the benefits of youth development programming documented here and elsewhere (Anderson-Butcher et al., 2003; Catalano et al., 1999; Eccles & Gootman, 2002), provides evidence that BGCA and other youth development organizations serve important roles in the lives of youths, families, and communities today. It is expected that further outcomes will accrue as programs target the development of self-concept and other risk and protective factors within programs. Likewise, addressing other challenges inherent in youth development programming such as funding and staff retention/turndown may also promote successes within BGCA and other youth development programs in the future.

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References


