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Sense of Self, Empowerment, and Interpersonal Skills Among African American Teens in East Cleveland, Ohio

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Sense of Self, Empowerment, and Interpersonal Skills
Among African American Teens in East Cleveland, Ohio

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Abstract

Purpose: This study explores the extent to which teen participants' in a youth development program had a greater empowerment self-connectedness, intrapersonal, and interpersonal skills after participating in the program. Findings from two years of a youth development program in East Cleveland, Ohio, are reported. A collaborative health navigator model was used to increase connectedness, empowerment, improve health care access, and ultimately prevent health disparities. **Method:** Pre-test and post-test surveys covering two 10-month periods for two cohorts of teens collected standardized data on teens' (N=31) senses of empowerment and connectedness. Focus groups were conducted with both health navigators and teen ambassadors about their experiences with the program and its impact. **Results:** The quantitative findings were mixed, but qualitative findings suggested that the program helped the teens develop a sense of personal empowerment through increased intrapersonal and interpersonal skills. **Discussion:** While long-term research including control groups is needed, the findings suggest that targeted teen programming can be a useful tool in the battle against health disparities.

Keywords (7): Youth development, preventive programming, program evaluation, teenagers, social determinants of health, underserved communities, mixed methods

Sense of Self, Empowerment, and Interpersonal Skills Among African American Teens in East Cleveland, Ohio

The teenage years can be a tumultuous time marked by not only physical changes such as puberty but also by profound external pressures that can impact health, well-being and future outcomes. Although data support the power of social and physical environments to affect health (Anderson, Smith & Sidel, 2005; Irwin & Scali, 2007; Link & Phelan, 1995; Navarro, Voetsch, Liburd, Bezold, & Rhea, 2007; Tountas, 2009), it is only relatively recently that health stakeholders and funders have shifted focus from the individual to community-level interventions for health promotion and prevention (Dean, Williams, & Fenton, 2013). Some now argue that social determinants of health (SDOH) supersede other factors affecting health including biology, genetics, and medical care (Bierman & Dunn, 2006; Centers for Disease Control and Prevention [CDC], 2010; Gottlieb, Fielding, & Braveman, 2012; Tarlov, 1999). The World Health Organization definition of “health,” adopted by the Centers for Disease Control (CDC) reflects this emphasis: “Health is a state of complete physical, mental and social well-being and not merely the absence of disease” (“World Health Organization: Constitution,” n.d, para. 2), and the WHO defines SDOH as: “the conditions in which people are born, grow, live, work and age” (“World Health Organization: Social determinants of health,” 2019, para. 1). Extending this definition, Viner et al. (2012) note, “these conditions or circumstances are shaped by families and communities and by the distribution of money, power, and resources at worldwide, national, and local levels, and affected by policy choices at each of these levels” (p. 1641).

Governmental agencies, corporations, and private foundations in the United States have prioritized community-based health promotion interventions that address SDOH (Navarro et al.,

2007; Tucker & Navarro, 2007). At the same time that funding for community-based health initiatives has increased, questions remain regarding their efficacy and efficiency (Horowitz & Lawlor, 2008; Merzel & D’Afflitti, 2003; Warnecke et al., 2008). Evidence suggests that health disparities in the United States continue to be pervasive, persistent, and increasing (Ramirez, Baker, & Metzler, 2008). Additionally, the health status of the nation’s youth (children, adolescents, and young adults) has stalled, and health disparities continue to exist among youth on the basis of race/ethnicity and economic status (Kreatsoulas, Hassan, Subramanian, & Fleegler, 2015; Mulye et al., 2009; National Adolescent and Young Adult Health Information Center [NAHIC], 2014). Consequently, funders (both private foundations and government agencies) have been increasingly interested in funding positive youth development programs (YDP) seeking to enhance protective factors and prevent risky behaviors, particularly among minority youth (CDC, 2010). “Positive youth development” has been defined as:

An intentional, pro-social approach that engages youth within their communities, schools, organizations, peer groups, and families in a manner that is productive and constructive; recognizes, utilizes, and enhances youths' strengths; and promotes positive outcomes for young people by providing opportunities, fostering positive relationships, and furnishing the support needed to build on their leadership strengths (Dymnicki et al., 2016, p. 4).

Although generally a healthy time of life, the teenage years are particularly vulnerable to a range of health and social problems including homicide, suicide, motor vehicle accidents, homelessness, unplanned pregnancies, smoking, substance use, alcohol abuse, and sexually transmitted diseases (CDC, n.d.). Despite the increased interest in youth development interventions to address these issues, there has been little improvement in the health of adolescents and young adults over the past decade, and large disparities continue to exist by

race/ethnicity and gender (NAHIC, 2014). Health and social problems during adolescence are of particular concern because if they are not adequately resolved they hinder a teen's likelihood of realizing a healthy and productive quality of life as an adult (CDC, 2010; Lawrence, Gootman, & Sim, 2009; Mulye et al., 2009). This negative impact is also realized in the school environment, where health and well-being deficiencies, particularly among minority teens, have been found to stifle motivation and hinder youths' ability to learn (Basch, 2011; Fiscella & Kitzman, 2009).

Existing research suggests that youth development programs offer adolescents the opportunities, skills, connections, and "atmosphere" that lead to better outcomes across several health domains (Bandy & Moore, 2009; Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004; Dymnicki et al., 2016; Sweet & Moynihan 2007; Viner et al., 2012). Much of this evidence, however, is fragmented in that it tends to focus on single-issue concerns such as drug abuse, smoking cessation, pregnancy prevention, and so forth. This narrow focus has made the integration, synthesis, and interpretation of results from an SDOH perspective problematic (Dymnicki et al., 2016). Consequently, stakeholders increasingly call for interventions that address prevention, risk reduction, and protective factors that focus on the adolescent as a "whole person" rather than on single issues affecting teen health, hence the nomenclature "positive youth development" (Catalano et al., 2004; Dymnicki et al., 2016).

Despite increases in the initiation of youth development interventions, "the field still lacks a clear definition" of what such programming entails, and this lack of clarity contributes to lingering reservations about their efficacy (Roth & Brooks-Gunn, 2015, p. 189; Walker, Gambone, & Walker, 2011). However, current interventions tend to be directed not only toward *prevention* (i.e., risk reduction) of problem behaviors but also toward *promoting* positive health and social behaviors (Roth & Brooks-Gunn, 2015). Rather than viewing youth as "problems to

be managed,” stakeholders increasingly consider teens “resources to be developed” (Alberts et al., 2016; Roth & Brooks-Gunn, 2003; Roth & Brooks-Gunn, 2015, p. 189).

While there is general agreement that youth interventions should address health promotion as well as risk reduction (prevention), a lack of consensus remains as to the specific goals YDPs should embrace (Roth & Brooks-Gunn, 2015). Catalano et al. (2004) offer a listing of 15 constructs that are appropriate as youth intervention and assessment goals. They include the promotion and/or fostering of: bonding, resilience, social competence, emotional competence, cognitive competence, behavioral competence, moral competence, self-determination, spirituality, self-efficacy, clear and positive identity, belief in the future, recognition for positive behavior, prosocial norms, and provision of opportunities for social and civic engagement. Importantly, stakeholders increasingly emphasize the importance of social and physical environmental factors in affecting a teen’s successful completion of developmental tasks (Catalano et al., 2004). In their systematic review of youth intervention evaluations, Catalano et al. (2004) identified 25 development programs they deemed “effective,” finding that “effective” youth programming included those that: addressed a minimum of five of the above youth constructs; measured increases in positive behavior and reductions in problem behavior; consisted of a structured curriculum; were delivered over a period of nine months or longer; and combined the resources of the adolescents’ family, the community, and the school.

Program Context

This paper explores the experiences of teenagers and the health navigators with whom they worked as part of a YDP from 2011 through 2014 in Northeast Ohio. The summer intensive curriculum focused on exposing teens’ to various local health-related resources in the community, and the school year curriculum was created collaboratively between the teens and

the navigators based on their interests and included community dissemination components.

Programming included 11 of the 15 Catalano et al. (2004) constructs outlined above, was highly structured, was delivered multiple times per week over three years, addressed health promotion and risk reduction efforts, and involved multiple stakeholders. Stakeholders included the teens, their families, the health navigators and their organizations, public officials (including city council members and members of the mayor's office), the school, and members of the community (area health and social service agencies, arts organizations, media outlets, etc.).

In 2010, the Kresge Foundation, as part of its national Safety-Net Enhancement Initiative, awarded a grant to a collaborative of organizations in Cleveland, Ohio, to support efforts of a core team of health-related Northeast Ohio area public entities and community organizations for to launch the program. These included a large hospital, the city and county government, health department, and a collection of local health and social service agencies (including one federally-qualified health center). The partnership focused on reducing health disparities and hoped to have a positive impact on the health outcomes of youth in one of the highest poverty cities in Ohio.

Among the project's goals were, in the short and intermediate terms, to increase teens': (1) connectedness to each other and the community, (2) knowledge about and access to community resources, (3) knowledge of health topics and the development of healthy living skills, (4) leadership and interpersonal skills, and (5) skills in advocating for themselves, each other, and the community. Figure 1 displays the program's logic model. Over the long term, the program hoped to encourage teens to accomplish their educational and career goals. To achieve these outcomes, the program strategy employed a community-based health navigator model in which core team partners worked with a group of Teen Ambassadors to increase teens' access to

health-related resources and disseminate health information. Health navigators were public health and social work professionals who worked for local health organizations and had experience working on health issues in urban areas. Health navigators developed tailored, weekly activities during the school year collaboratively with the teens based on their interests, with a health-related focus. Teen Ambassadors participated as project employees and were paid \$10/hour and provided with bus tickets for transportation through grant funds.

Navigators met with the three cohorts of teens 11 months of the year, first during a two-month summer academy intensive, and after school and some weekends during the school year, 3-4 times per week (approximately 8-10 hours per week). The program provided a learning and employment opportunity for teens attending high school in East Cleveland, a high-poverty city in Northeast Ohio. East Cleveland's population of over 17,000 people included 42% living in poverty, and approximately 93% Black or African American (U.S. Census Bureau, 2015). Figure 2 displays some of the key programming topics that teens and navigators co-developed over the course of the program, providing multiple opportunities for teens to become engaged in the community while gaining knowledge about health topics, violence prevention, budgeting, and college and career-preparatory activities. This paper examines the empowerment, intrapersonal connectedness, and development of interpersonal skills among the teens who participated in the program.

Research Questions

This research sought to examine the potential short-term impact the program had on participating teens, using mixed-methods. Our research questions included: (1) To what extent did teen participants' sense of connectedness and empowerment change over the course of the program? and (2) To what extent did the teens report changes in their interpersonal skills

between pre-and post-test? We expected that teens who participated in the program would demonstrate more connectedness, empowerment, interpersonal, and leadership skills between pre-test and post-test.

Methods

Design and Participants

The research design was a mixed-methods convergent design in which qualitative and quantitative data collection techniques were concurrently designed, and carried out (Creswell & Plano Clark, 2011). The rationale for using a mixed-methods approach was that the program highly valued a community-engaged approach, seeking to evenly distribute power and honor participants' voices (for which a qualitative approach was most appropriate), but it also hoped to track change over time and provide data about changes for the larger initiative (for which a quantitative approach was well suited). In Year 1, the data collection instruments were designed—pre-and post-test surveys for teens and focus group interview guides for both teens and navigators—and at the end of the pilot year, Year 1 (June 2012), navigators participated in a focus group reflecting on the year and sharing their insights and learning for developing the second year of the program. At the beginning of Year 2 (July 2012), quantitative (pre-test surveys were distributed to the 13 teens who began the program that year), and a focus group was held with seven teens in Fall 2012 to explore teens' experiences and suggestions for program changes. End-of-year quantitative and qualitative data were collected from teens through a post-test survey in May 2013 (N=13), two teen focus groups in April and May of 2013 (n = 10) and a navigator focus group in June 2013 (n=4). Finally, at the start of Year 3 (July 2013), 17 teens completed the pre-test survey, at the end of the year (May 2014), 17 filled out the post-test survey, eight teens participated in an end-of-year focus group, and in June 2014, six navigators

participated in the final focus group. Five of the six navigators were women, so in the focus group quotes, the navigators are referred to with numbers rather than names. Pseudonyms are used for the teen participants.

A total of 31 teens participated in the program during Years 2 and 3. New recruitment periods were conducted each spring. Teens were selected for interviews from a list compiled by school administrators, and after participating in interviews to assess their fit with the program's goals and the applicants' time availability, they were offered slots as Teen Ambassadors. In Year 2, 14 students were selected from among 55 applicants, and in Year 3, 17 were selected from 50 applicants to participate in the program. An additional five teens and one navigator worked closely with the first author on an Evaluation Advisory Committee in Years 2 and 3. The data used from those meetings (informal written and verbal accounts of teens' experiences of sessions) were used to triangulate the other data sources.

Only one student participated in the program all three years. During the course of the years, there were three dropouts (one in Year 2 and two in Year 3) that occurred due to changes in their personal lives, including becoming too busy with extracurricular activities, getting a job, and in four cases, the teens being involved with marijuana, and two became parents. In Year 2, one teen dropped out before completing the post-test survey, but another was added as a replacement so for that year we had a total of 13 pre-test surveys and 13 post-test surveys for 14 unique teens. In Year 3, two students dropped before completing the post-test survey and for one student we had one student for whom we do not have a pre-test but do have a post-test, resulting in 16 pre-tests and 15 post-tests. In all, of the 31 who completed surveys, 28 teens had pre-test data (25 had pre-test data only, no post-test), and 28 had post-test only (25 had post-test only data). A total of 25 students had matched pre and post-test data.

Survey: Instruments

The pre-test survey was developed during the first year as the program was being created. The pre-test survey included 152 Likert-type survey questions, and a post-test survey included 82 Likert-type survey questions and 10 open-ended questions. Sixty of the items were included in both the pre-test and post-test surveys to detect change over time. Measures that were collected only at pre-test were collected to better understand the teens' backgrounds and to better tailor the year's programming and these variables were not necessarily expected to change over time. A set of 28 questions (20 Likert-type, eight open-ended) were asked only at post-test to explore the specific effects the program experience had on the teens across several domains. This paper explores only the survey data addressing teens' connectedness, empowerment, interpersonal and intrapersonal changes (collected at post-test only).

Empowerment. The measure of empowerment utilized Bolland and McCallum's (2002) "individual self-efficacy" scale which was adapted from the 12-item Doubt About Self-Determination Scale (Schuessler, 1982), utilizing five of that scale's items. The scale's five items included "What happens in life is largely a matter of chance," "A person has to live pretty much for today and let tomorrow take care of itself," "The world is too complicated for me to understand," "I do not have much influence over the things that happen to me," and "The future is too uncertain for a person to plan ahead." All items were measured on a three-point scale where 2=Agree, 1=Unsure, and 0=Disagree. The Cronbach alpha was adequate at 0.73. The summed scale's theoretical range was from 0 to 10 for the five items.

The second group of four empowerment items was collected only at post-test and the items were developed specifically based on the program's goals. A question stem asked teens to reflect on their time in the program "Since being in the ECTC..." and responses were measured

using a 5-point Likert type scale where 0= “strongly disagree”, 1= “Disagree”, 2= “Neutral”, 3= “Agree”, and 4= “Strongly Agree”. Statements included “I feel I can make a difference in my community”, “I am thinking about different career options”, “I believe my opinion is important” “I feel I have more control over my life.” Cronbach's alpha for this group of items was acceptable at 0.75. The summed scale based on this measure had a theoretical range of 0 to 16.

Connectedness to Self and Intrapersonal Changes. Two subscales of the Hemingway Measure of Adolescent Connectedness (Karcher, 2011) were used to examine adolescents’ sense of connectedness to themselves in the present and the future. The scale includes subscales for Connectedness to Self in the Present had five items, including “I can name five things that others like about me,” “There is not much that is unique or special about me”, and “I really like who I am”, and “I have special hobbies, skills, or talents”, “I have unique interests or skills that make me interesting”. The second, Connectedness to Self in the Future (five items, including “I will have a good future”, “doing well in school will help me in the future” and “I think about my future often”, “I do things outside of school to prepare for my future”, “What I do now will affect my future”). Response options ranged from 1= “Not true at all”, 2 =” Not really true”, 3 = “Sort of true”, 4= “True” to 5= “Very true”. Including all the items yielded a Cronbach alpha that did not reach the level of acceptability for either scale (0.675 for Self in Present and 0.58 for Self in Future). After examining the correlation matrices, we removed the second item in Connectedness to Self in Present and item 5 from Self in Future. Subsequently, the reliability increased to 0.76 on both scales. Then we calculated an index for Connectedness to Self in Present and Self in Future. Each index had a theoretical range of 4 to 20 after the items were summed.

A set of five Intrapersonal Change items addressed teens' feelings about themselves. The item, assessed at post-test only included, (1) "I feel proud of myself", (2) "I have learned about ways to deal with stress", (3) "I have new cooking skills"; (4) "I have learned how to avoid violence"; and (5) "I have learned the value of hard work". Each item's stem asked them to respond reflecting on since they started the program, and they were measured using a 5-point Likert-style scale that ranged from 4="Strongly Agree" to 0="Strongly Disagree." The Cronbach alpha for these items was acceptable at 0.80. The items were summed to form a scale, and the summed scale ranged from 0 to 20.

Interpersonal Skill Changes. A final set of items was collected at post-test only and pertained to teens' perceptions of how the program helped them with their interpersonal skills. Like the post-test measures discussed earlier, the question stems led with, "Since being in the ECTC..." and included 5-point Likert-style response options that ranged from 4="Strongly Agree" to 0="Strongly Disagree." The six Interpersonal Skill Change questions asked about: (1) the relationships teens had formed with other teens, and (2) relationships with the health navigators, (3) "I work better with others", (4) "I am better at dealing with conflict", (5) "I am better at solving conflict", and (6) "I am more of a leader". Cronbach alpha for these items was acceptable at 0.80. The items were summed to form a scale, and the theoretical range of the summed scale was from 0 to 24.

Survey: Procedures

Navigators were trained to administer pre-tests on the first day of the program in July of 2012 and 2013 as part of the teens' orientation and intake. The first author administered the post-test survey at the end of the program year (May 2013 and 2014). Surveys were administered at the beginning of the program at the field trip site of the first meeting in a private

room, and the end-of-year survey was administered in a room at the high school during a scheduled program session. A university-based IRB provided approval for all data collection activities.

Surveys: Analysis

The findings are presented in three segments. Descriptive statistics are presented for the entire sample whenever possible (n=28 for pre-test, n=26 for post-test), and statistics that examined changes between pre-test and post-test were conducted only for teens for whom we had matched pre- and post-tests (N = 25). Because of the small sample size and the fact that few assumptions could be met for rigorous parametric statistical analysis, nonparametric methods were used to examine pre/post differences. Chi-squares were used for categorical data, accompanied by Fisher's Exact Test for a more precise value and to correct for unbalanced cell sizes, and Cramer's V to assess effect sizes. Wilcoxon signed-rank tests were used for continuous data. Frequencies for the questions asked only at post-test are also presented. Quantitative data were analyzed using SAS software, Version 9.04.

Focus Groups: Measures

To gather qualitative information from those closest to the program, seven focus groups were held. Four focus groups were held with teens and three with health navigators over the course of the program. The focus groups with teens at the mid-program assessment asked teens to share their feelings about their "experiences with the program so far", and this question at the end of the program simply referred to the program's conclusion.

Teen Focus Groups: Interview Questions. Teens were asked to: discuss the best and hardest parts of the experience, share their favorite activities, identify what they would like to see changed, and share their experiences with the health navigators. The teens were asked to talk

about what they had learned about health and what they would need to learn to feel comfortable teaching other teens about health topics. The specific questions for the teens asked the following: (1) Please tell us about your feelings about your experiences with the East Cleveland Teen Collaborative (ECTC) so far. (2) What has been the best part of the experience? (3) What has been the hardest part? (4) What would you like to see changed? (5) Please talk specifically about your experiences with the ECTC health navigators. (6) Which have been your favorite activities so far? (7) Tell us about what you have learned about health so far. (8) What do you need to feel comfortable teaching other teens about health topics?

Navigator Focus Groups: Interview Questions. The adult health navigators were asked many of the same questions as the teens about what they liked most and least about the program and what they wanted to see changed, and they were asked to reflect on their experiences with the program. The specific questions asked: (1) Please tell us about your feelings about your experiences with the East Cleveland Teen Collaborative (ECTC) so far; (2) What has been the best part of the experience? (3) What has been the hardest part? (4) What would you like to see changed? (5) Please talk specifically about what you think the teen ambassadors are learning/what they are getting out of their experiences with the ECTC.

At the end of the program, the final focus group with the navigators asked seven questions: (1) What do you think the teens learned as a result of their participating in the program?; (2) What program activities and events do you believe fostered positive growth and enhanced learning?; (3) What has the program meant for you personally and professionally?; (4) What organizational opportunities and challenges have you encountered in your work?; (5) How would you describe where the program is now vs. last year and at the beginning of the initiative?; (6) How would you describe the program's effect on improving population health here?; and (7)

What would you do differently knowing what you now know? What changes should be made?
This paper focuses on the first two questions.

Focus Groups: Procedures

All focus groups were facilitated solely by the first author, interviews were recorded using a digital audio recorder, and transcribed by a professional transcriptionist. No extra incentives were offered for participation; both teens and navigators participated in the focus groups as part of their normal work hours. The first focus group was held at the end of Year 1 with five (all) navigators. In Year 2, a focus group was held mid-year with teens (n=7 of 12) to make real-time changes and assess program experiences and at the end of the program year (n=10). A focus group was also held at the end of the program year with navigators with four of the five navigators. For both teens and navigators, the focus groups were announced at least one week ahead of the session, and the focus group was held with those who were present for that session. Two other focus groups were held at the end of Year 3 with teens (n=8 of 22) and navigators (6 of 7) separately to explore both teens' and navigators' experiences with the program and their perceptions of the program's impact.

Focus Group: Analysis

Focus group transcripts were analyzed line-by-line by the first author and research assistants. After meeting and discussing the transcripts, the analysts began the analysis process by reading through the transcripts and met to discuss sections of transcripts that addressed program impact on the teens and identify the themes they suggested. While we overall were interested in determining the extent to which identified themes reflected program goals, we adopted a constructivist approach to the coding. This meant that we most valued the meanings of experiences for our participants, the impact of their social interaction with each other, and

recognized that multiple realities were possible (Cresswell & Plano-Clark, 2011). We assumed that meaning was co-constructed on multiple levels—within the teen group and within the navigator group, and then between the teens and researcher, and between the navigators and researcher. With this approach, coding began on the most grounded level possible first (using participants' exact words) and proceeded to developing more general themes as we noticed patterns across transcripts.

To enhance qualitative data trustworthiness, peer debriefing was conducted, during which the researchers consulted with colleagues (one college professor with experience with teen-based program evaluations, one hospital-based program supervisor who had knowledge of teen programming and the focus of the program, and a team of health disparities researchers at the University of Michigan who were in charge of cross-site evaluation efforts on the larger project) who had not participated in the data collection to discuss findings and interpretations. In these consultations, the first author shared data (transcript summaries and specific supporting quotes) and interpretations of those data to examine the extent to which the interpretations of the first author coincided with those of other experts. Member checks (Patton, 1999) were also performed, during which the first author shared findings from the interviews with the teens and the health navigators to check both the accuracy of the interpretations and to determine if any information was missing.

An additional strategy for enhancing trustworthiness included prolonged engagement (Patton, 1999). The first author worked on the program for all three years, served as a participant-observer for the program's major events (e.g., poetry slam), observed five regular sessions per year (one in the summer session, two sessions in the fall and two in the spring), was

an integral part of the core program team which met twice monthly, and participated in periodic multi-site conference calls.

The first author also held an additional four meetings per year with a Teen Evaluation Advisory Committee, which included one navigator and four Teen Ambassadors (who applied and were selected for inclusion based on their expressed interest in working with the evaluation). During these meetings, she worked with the teens to explain the purpose of evaluation and data collection and asked the committee members for formative feedback (both written and oral) that could be communicated to the core team for implementing immediate program improvements.

Results

Sample Demographics

More than half (58.6%) of the teens who completed pre-test surveys ($N = 28$) were male and their average age was 16 ($SD = 1.1$). Approximately one-third (32.1%) were 14-15 years old and another 32.1% were 17 years old with the remaining (35.7%) being 16. More than half (51.7%) of the teens were in 11th grade), 27.6% were in 12th, and 20.7% were 10th graders. In identifying their race and ethnicity, teens could select all possible categories that applied to them, thus the totals add to more than 100%. All teens (100%) identified their race as Black/African American, 9.1% also reported being White/Caucasian and 9.1% reported their ethnicity as Hispanic/Latino. Another 18.2% identified as mixed-race or another race or ethnicity.

More than three-quarters (79.3%) of the teens reported that they received free or reduced-cost lunch. About half (51.7%) of teens reported that they lived in their present neighborhood five years or longer; 17.2% for one year or less, and 31.7% reported living in their neighborhood for two to four years. While all teens attended high school in East Cleveland, only 47.1% of the sample also reported living there. Other teens commuted from nearby cities or suburbs (23.5%

from the city of Cleveland). The teens also reported experiencing urban hassles (Miller & Townsend, 2005). Nearly two-thirds (64%) of the teens reported that they often or very often walk past “abandoned buildings or lots”, more than half (53.6%) reported seeing “people hanging around on street corners or in front of stores” often or very often, and 42.9% reported they often or very often worry about their own safety or the safety of family members.

Empowerment

Survey Findings. Table 1 lists quantitative findings for all pre and post-test analyses. Examining data from the quantitative surveys, although the means scores on the empowerment scale were lower at post-test as compared to pre-test, suggesting that teens expressed a greater sense of empowerment at post-test than pre-test, the Wilcoxon signed-rank difference was only marginally statistically significant ($Z = -49, p = 0.085$). Examining the frequencies of the individual items to explore the data patterns, teens were less likely to report agreeing with items (all items were negatively phrased, so agreement reflected lower empowerment) at post-test as compared to pre-test for every item except one, “The world is too complicated for me to understand.” The difference, however, was not statistically significant, and only three teens agreed with the statement, suggesting an analysis of any “pattern” is likely not useful. Statistical significance was attained for only one item, “A person has to live pretty much for today and let tomorrow take care of itself.” ($\chi^2(4)=13.19, p=.01, Fisher's Exact Test, p=0.05, Cramer's V = 0.57$). On this item, teens were significantly less likely to agree with the statement at post-test as compared to pre-test, potentially suggesting teens were thinking about the future more.

The post-test only survey empowerment scale data also supported the idea that teens had become empowered in the program. The survey showed very little variability and responses trended strongly positive. The majority of teens agreed or strongly agreed that with

empowerment statements “I believe my opinion is important” (85.2%), “I feel I have more control over my life” (81.5%), “I am thinking about different career options” (74.1%) and nearly all agreed with the statement, “I can make a difference in my community” (92.6%). The empowerment scale had a mean of 13.48 ($SD = 3.04$), indicating moderately high empowerment.

Qualitative Survey and Interview Findings. In addition to the survey findings, the interviews also identified empowerment as a theme. Interview segments that were identified as having an empowerment theme included mentions that related to power, assertiveness, descriptions around action or engagement, and focused on strengths that each group attributed to the program (these later were identified as aspects of youth empowerment in the literature as well (see Iwasaki, 2016; Jennings, Parra-Medina, Hilfinger-Messias, & McLoughlin, 2006). The navigators, but not the teens, specifically used the word empowerment in describing what they felt the program impact had been for teens. Navigators talked about teens’ development in several ways, but they said teens’ development in terms of trusting in their own voice was important. An increased sense of confidence and the development of “a different notion” of themselves helped teens believe they had new abilities to make an impact, navigators said. One concrete way navigators observed this development was through the teens’ becoming more comfortable speaking in public. This was noted as an especially powerful example of how the new sense of empowerment was manifest. One navigator said, at the end of the second year:

I think they’ve been empowered because they own their own voice. We’ve had students who would barely speak in a room of their peers who now know how to lead a conversation. They are empowered. ...They have a better voice and a better sense of self, and I think those were the seeds that we planted in the teens, and whether they take it and

they run with it, those are their choices, but at least now they're aware that they have those choices to make. (Navigator #4, Year 2)

The teens also recognized that they had developed more of a sense of “voice.” Responses to open-ended survey questions asking the teens to comment about how the program helped them feel better about themselves spoke to feelings of empowerment. Responses from different teens included: “I feel like I am capable of anything”; “My voice is important and means something”; “My voice/opinion matters”; “I feel like I can voice my opinion more”; “I am more confident and I can express myself more.” Asked what mechanisms of the program drove such an increased sense of “voice,” the teens said that the program in general, and the navigators in particular, valued them and what they had to say. One teen said: “Being able to freely express our opinions in every discussion we have, and having open discussions about different topics” (Jalen, Year 2). This quote emphasized the atmosphere of safety and respect the teens felt the program atmosphere provided, which helped drive their enhanced confidence and ability to contribute ideas and participate meaningfully in the community.

Connectedness to Self and Intrapersonal Changes

Survey Findings. Teens’ scores on their connectedness to self in the present and future indicated high pre-test scores, suggesting they felt connected to themselves before their exposure to the program, and there was very little change in their scores between pre-test and post-test.

Regarding the Connectedness to Self in Present scale, there was no statistically significant difference between the means on the Connectedness to Self in Present at pre-test as compared to post-test ($t(24) = -1.58$; 95% *C.I.* = -2.31, 0.31, $p = 0.13$), suggesting teens’ composite scores on connectedness to self in present were similar at pre- and post-test. Comparing the scales for Connectedness to Self in Future at pre-test and post-test, the ranked

mean differences were statistically significant ($Z = 23, p = 0.04$), suggesting teens reported feeling more connected to themselves in the future at post-test as compared to pre-test.

Given the small sample, we also examined the frequencies of individual items. Although all items had higher frequencies at post-test as compared with pre-test, only two items were statistically significant across both Connectedness indices. With regard to Self in the Present, only one item, “I can name 5 things that others like about me” was statistically significant, with increased likelihood for teens at post-test to report this was true or very true as compared to pre-test ($X^2(6) = 10.82, p = 0.0043$, *Fisher’s Exact Test*, $p = 0.018$, *Cramer’s V* = 0.475). With regard to Self in the Future, only one item, “I think about my future often” was statistically significant, with all students at post-test reporting this to be true or very true ($X^2(2) = 24.00, p < 0.001$, *Fisher’s Exact Test*, $p = 0.04$, *Cramer’s V* = 1.0), indicating teens’ increased likelihood of reporting thinking about their future often at post-test.

Intrapersonal changes were also assessed with the post-test only survey items. These items showed high frequencies, with more than three-quarters agreeing or strongly agreeing with every item. Most teens (88.9%) agreed with “I feel proud of myself”, 81.5% with “I have learned about ways to deal with stress”, and 77.8% each with “I have learned how to avoid violence”, “I have learned the value of hard work”, and “I have new cooking skills.” These findings suggest that the teens felt they observed intrapersonal changes they attributed to the program.

Qualitative Survey and Interview Findings. Qualitative coding for intrapersonal changes revolved around internal, within-the-self-changes, and included teens’ or navigators’ mentions of teens’ internal changes. Findings from the focus groups provided support for the idea that the program fostered intrapersonal changes in the teens, particularly around the sense of self in the

present and future. “Challenging thinking”, “increasing expectations”, “changed sense of responsibility”, and “sense of accomplishment” were among the codes developed under the theme of intrapersonal changes. One navigator’s thoughts were a good example of how they felt the program helped enhance the teens’ intrapersonal skills.

I think we challenged their way of thinking. I think the norm in how they live their life on an everyday basis and some of the topics, I think we challenged them and I think that critical thinking...will help them as they go in whatever life direction they go in, and they’ll understand that they do have a choice. (Navigator #1, Year 1)

Intrapersonal changes teens mentioned included learning how to deal with stress, dealing with conflict, dealing with anger, and learning how to better express themselves. One mentioned having an improved work ethic. Other skills included learning how to “design new things,” and how to manage time and money. Another teen talked about how the program had helped her recognize her strengths.

Because it’s a lot of stuff that like we learned about ourselves that we thought was probably like a weakness, and it’s actually like strong points for us, and it’s like we know how to deal with ourselves now and like deal with people coming up against us a certain type of way. Just learning more about ourselves for real. (Monique, Year 3)

In open-ended responses on the post-test surveys, teens confirmed these changes, writing that they had grown by learning to speak in front of an audience, overcoming shyness, and improving their communication skills.

Responsibility. Other skills the teens agreed they had learned was an increased sense of responsibility, which included managing money and time, and preparing for their future.

Because the program was an employment opportunity, the teens had a “safe space” in which to

make mistakes and to learn about responsibility. Many of the teens were involved in extracurricular activities that required them to develop time management skills to balance their responsibilities. Both the teens and the navigators noted that such skills would serve the teens well in their future. One teen described his experience:

I think it's you know a good way to build responsibility as a young adult, and you know punctuality, respect, work ethic, and sometimes a little stressful, but you know, that's part of life, and having a job. (Morgan, Year 2)

One navigator commented that the responsibility extended beyond themselves, noting teens did not exclusively use the money they earned for themselves; some used it to help their families.

The navigator said:

The financial resources that the students received was also a great opportunity. I know one of the young ladies we interviewed, she said that her parents couldn't provide the resources, and that's one of the reasons why she wanted to take this position. The stipend that they got every month showed them how to manage their money and how to appreciate the value of a dollar somewhat. (Navigator #4, Year 1)

At least three teens admitted they used the opportunity to help their families financially. One teen spoke to this point:

Like okay, with me getting my paycheck...I'll pay my phone bill, and then sometimes I'll give my mother money, depending on what's going on that month, or like you know home situations, and that's people too, 'cause there's some people's parents that's disabled, you know what I'm saying, so their checks on top of you know the disabled check is gon' help around, and so some of our money don't really go to us. It goes investing into our homes. (Natasha, Year 3)

One teen discussed how money management became a priority during the program:

Every check I got, always took \$100 out and put it in my savings account. That's for a rainy day, and it really took a lot out of me like last year because I said "Let me put in \$100," and you got to have a lot of discipline to actually save some money for yourself, 'cause you have like "Okay, I got my bills. I got to do this. I got to do that." Oh, but made sure I took out my \$100 each and every month, sometimes \$200, just going an extra mile, and it taught me responsibility...this job has helped me grow in responsibility of my money, personal life, and also helping out the family. (Jalen, Year 3)

The teens talked about ECTC as a unique chance to earn a decent wage and recognized that it was a special opportunity for people their age.

Because of the community we're living in...this is a great opportunity we're living in also...Ten dollars an hour, you won't get that. McDonald's not even getting that, minimum wage...so I just think that we... I appreciate it, for real for real, because it's helping me out. (Natasha, Year 3)

Preparing for the Future. Navigators also said that the program helped the teens prepare for their future. Early on in the program, the learned how little the teens in the first year had been thinking about and planning their futures, so the navigators described intentionally working to shape the program in the direction of future planning for later cohorts, emphasizing that the "need to be taking an active role in whatever it is that they want to do." The navigator said, referring to Year 1 teens:

It seemed like they just expected things would just kind of magically happen for them, and they didn't think about the future in a way that they had any chance of shaping or

changing, and now like they feel like all of them really took it home to be responsible for getting other tests, getting their applications in. (Navigator #3, Year 2)

In particular, the navigators worked toward walking the teens that were interested in college through the concrete steps, including requesting applications, applying for and taking the appropriate tests, researching and selecting potential financial aid possibilities, and learning from people working in the careers in which they were interested. The navigators also intentionally exposed the teens to new experiences and sought to broaden their horizons for the future.

Even going to the college campus...that would challenge them to say, "You know you are not bound by your circumstance. You may come from a neighborhood that has these challenges, but the world is a big place and it's oftentimes what we make of it based on the decisions that we engage in, and so just consider that other things are possible for you." (Navigator #1, Year 1)

This quote highlighted the navigators' attempts to expose the teens to not only the wider community but also different perspectives, and hope for the future. One navigator provided examples of types of questions they asked the teens: "Okay, what is it that you want to do? Where do you see yourself ten years from now?'... 'beyond your senior year...what happens next? What's the next chapter in life?'" (Navigator #5, Year 2) These questions pushed students to think about and prepare for their futures, and encouraged intrapersonal changes in that direction. The navigators noted that they used teens' increased empowerment to help them become more intentional about thinking about and planning for their futures.

Interpersonal Skills

Positive changes in interpersonal skills were reported by a majority of teens on the post-test-only measures. Nearly all agreed or strongly agreed with "I have developed strong

friendships with other Teen Ambassadors (92.6%), while 74.1% agreed “I have developed strong relationships with health navigators”, 85.2% reported “I am more of a leader”, and 74.1% of the teens reported: “I work better with others”; “I am better at dealing with conflict” and “I am better at solving conflict”. These findings indicate the teens tended to agree with all the items suggesting their interpersonal skills improved. In the interviews, codes relating to interpersonal skills, related to having a greater ability to work with others, to teach others, and to lead others.

Open-ended survey responses included “I feel I can lead people on the right track.” and comments about the friendships they made through the program. Teens also commented that they felt that getting to know the navigators had been helpful in terms of increasing social network connections. In the interviews, codes related to interpersonal changes involved interactions with others and comments about relationships. From the navigators’ side, they observed teens who had become more empowered and confident in their intrapersonal skills also grown in terms of interpersonal skills, becoming more comfortable interacting with people in the community, and acting as leaders. In Year 2, one navigator put it succinctly, “We birth leaders” (Navigator #4 Year 2). The empowerment teens developed aided their confidence level for speaking in front of others, voicing their opinions. Teens also embraced the leadership skills they felt they had learned. One teen, at the end of the program, said: “My favorite part would probably be learning stuff to tell others, like becoming a leader and being able to help other people on stuff that we have learned.” (Chantel, Year 3)

The teens’ beliefs about their intrapersonal skills, more of a sense of empowerment, and greater exposure to the community and community resources through the program also fostered their interpersonal skills. The teens talked about feeling more connected to the community as a result of various activities, including field trips during the year which included work in

community gardens, learning about local arts resources, about public transportation, local universities, local financial institutions, nursing homes, and social and health services. Teens' interview data also confirmed their desire to get out into the community and make a difference, in any way they could, whether to pick up trash, or take their knowledge and tell others about the program and teach them.

We had so much momentum going into 2013 that we was unstoppable. We couldn't be stopped, and I think for this year and next year that we should just have that momentum keep going, summer academies, school year. (Tariq, Year 3)

Teens' sense of empowerment, combined with their community experiences motivated their desire to feel they could participate in making meaningful changes in the community. In reflecting on the program, they said they were eager to spread information in their communities, and they felt they had empowered to do so through the intrapersonal and interpersonal changes they experienced.

Discussion

Three main findings emerge from this mixed-methods study. Teens participating in a broad-based community-engaged program with health professionals adults leading them reported a greater sense of empowerment and improved intrapersonal and interpersonal skills. Without taking a mixed-methods approach, and focusing only on quantitative survey findings, we might have concluded the program had little to no impact, but by examining the words and perspectives of those close to the program, another picture emerges. Through program activities, navigators intentionally identified areas of growth and challenged teens to work toward their goals, think critically, and make use of community resources. This work, by both the teens' and navigators' qualitative accounts, led to changes in intrapersonal skills such as feeling better able to cope with

stress, feeling more confident, responsible and valuing their voices. The intrapersonal skill changes may not have led to statistically significant changes on a standardized scale, but by their own reports, were practically meaningful in improving teens' connectedness to themselves in both the present and future, as teens talked about thinking about the future more. Such self-connection seemed to help teens with interpersonal skills, as well, ultimately empowering teens to work for positive changes in their community.

Shifts in thinking like those we have found here can be powerful for at-risk youth as they begin to see daily behavioral decisions through a longer-term lens in terms of the impact it may have on their lives (Shell & Husman, 2001). This outcome was reinforced by the fact that all of the participants in Year 3 were admitted to college, and several talked about how the program helped them identify opportunities, including internships, and job connections. The youths' reports of feeling more connected to and eager to help the community and serve as a leader in it, are powerful in that the youth participants began to think beyond their individual gratifications and to instead see themselves as integral and important members of their families, neighborhoods, and schools, found to be important in past research (Jennings et al., 2006). Teens saw the program as a vehicle with which they could help their financially-struggling families, and it also allowed them to become more responsible financially. The finding that the participants felt the program fostered responsibility and taught money management, budgeting, and saving could suggest they gained valuable skills that could translate into increased financial security in the future.

Post-test survey data specifically asking teens about the direct impact of the program revealed the teens' enthusiasm and belief that the program had positive effects, including developing strong friendships, learning to cope with stress, and increasing leadership skills and

pride in self. Focus group data also point to teens' and navigators' notions of the program benefiting teens, potentially over the long term. Whether these program effects will be maintained over the long run is unclear; however, this learning has planted "seeds" for the teens to be able to continue to develop life skills, to create and maintain healthy lifestyles, both by applying knowledge and by using their leadership skills in the community.

This research supports the findings of previous literature in particular that for a PYD to be considered effective it needs to address all aspects of a teen's health: physical, social, emotional, cognitive, behavioral and moral. Catalano et al. (2004) include a lengthy list of traits that "successful" programs address: the "promotion" of competencies in the above domains; and the "fostering" of resilience, bonding, resilience, self-determination, spirituality, self-care, self-efficacy, a positive self-identity, and a "belief in the future" (p. 101-102). Our qualitative findings suggest that the program had some impact in many of these areas; although, having standardized measures to support our findings in addition to the qualitative data would strengthen drawing such a conclusion. Additionally, the relatively short term length of the program makes it unclear the extent to which the findings would be maintained over time.

Previous literature has also found that increased opportunities, skills, connections, and "atmosphere" lead to better outcomes across several health domains (Bandy & Moore, 2009; Catalano et al., 2004; Dymnicki et al., 2016; Sweet & Moynihan, 2007; Viner et al., 2012), and these findings suggest that, at least in the short term, the program was able to offer all of these elements to this relatively small group of teens. Moreover, effective programs provide opportunities for teens to participate in community service activities and provide a protocol to recognize and reward positive, exemplary behavior (Catalano et al., 2004), as this one did. Another review of PYD interventions sponsored by The Kellogg Foundation (Schorr &

Marchand, 2007) found that communities can help youth enter adulthood successfully and healthfully by preparing them for higher education and employment, increasing their prospects for thriving, and belonging, and ensuring that they receive the services and support they need to attain and maintain a healthy quality of life in all life domains. In short, the literature is replete with examples, reviews, case studies, and empirical evidence (whether experimental, non-experimental, or “best practices”) that suggest PYD programs, especially those addressing the “whole person,” are effective in preparing youth to enter adulthood successfully. The program addressed in this paper provides one example of such an effort.

Strengths and Limitations

The data presented here include mixed methods using both standardized scales and programmatic-specific survey techniques to gauge program impact and also incorporate qualitative data to help understand the on-the-ground meaning and impact of the program for teens in their own words. While the quantitative findings were mixed and necessarily limited in that they were measured with a small sample of teens in one geographic location, they are at the same time bolstered by the qualitative data that allow the first-person voices of both the teens and the adults they worked with to be heard. The program itself was unique in that it used a broad-based curricular approach to addressing health disparities, and was grounded in the desires and interests of the community. Because the program remained committed to developing for and in response to community needs, the first year of the program attempted to work with teens to develop the program weighing the goals of the program with the teens’ interests, skills, and abilities. This specific-to-the-community and yet broad-based approach (focusing on SDOH) is both a strength and a limitation to the program. While SDOH demand a broad approach, measuring the impact becomes difficult when program elements become diffused, topics are

diverse, and teens' interests change. Additionally, while the evidence base of effective teen programming is developing, this program did not use a specific, manualized curriculum, focusing instead on developing the curriculum based on the teens' own needs and interests as they arose.

Because we did not have access to an appropriate control group, a critical limitation is that we cannot conclude that the changes teens reported were caused by the program alone. Another important limitation of the findings presented here is that our quantitative data rely on teens' self-reports and an inability to build a strong case that the program contributed to the teens' improvements. When asked specifically about the impacts of the program in both surveys and focus groups, the teens' responses were strong and compelling; however, the changes observed in more standardized measures were less convincing of reliable change. There could also be threats to internal validity through the teens' desires to please the researchers or to only report socially desirable behaviors. Another limitation includes limited triangulation with other potential data sources. For example, while we have been able to report on navigator and teen perspectives, we do not have data from parents or teachers with which we could better understand broader program impacts.

Another limitation of this program, as with many prevention programs, is the limited timeframe in which the work was conducted. Truly measuring the long-term impact of the program on teens (i.e., determining whether it was successful in preventing disparities) demands continued engagement with teens over time. A longer-term study would have been able to follow teens to explore whether program involvement was associated with high school graduation rates, attending and completing college, engagement with risky behaviors and violence, as well as outcomes such as teen parenthood or contracting STDs, in addition to the

short-term outcomes we've measured here. Although the program was carried out over three years, the program itself and data collection techniques were developed during the first year, leaving only two years for measurement. A longer-term effort based locally to capture these rates beyond the three years would be useful to more fully understand the long-term impact of the program.

Finally, evaluation data did not include process evaluation measures such as teens' session attendance rates. Such data could have helped shed light on the program's impact. For example, it would be informative to identify whether teens who got a higher "dosage" of the program sessions based on more frequent attendance had differential outcomes as compared with those who did not. There would, however, have been little variation in such data; teens had a high rate of attendance because they got paid for attending and also received bus passes. This also helps explain why the dropout rate was quite low.

Implications and Future Research

The teens' and navigators' descriptions of the teens' improved sense of empowerment and ways in which the program helped them were powerful process evaluation indicators for the core team that suggested the program was on the right track. The elements around preparing for the future and helping teens practice being employees in a safe, non-punitive environment working with professionals who served as mentors and guides were also reinforcing for the team as the program developed. Although the larger goals of the initiative were to teach teens to mentor their peers, the team realized that the teens themselves needed more intensive mentoring before they could serve as mentors themselves. The necessity of developing teens to gain the confidence needed to be effective in such an effort slowed the program down and realigned its focus to have a more intensive, focused impact on a smaller number of teens over a longer

period. The teens eventually held larger events to educate their peers, but most of the program's focus was on the teens themselves. Practitioners working on similar programs should keep in mind the limitations of short program timeframes, the amount of effort needed to develop teens to become ready to be peer mentors, and the importance of developing strong, respectful relationships with teens that will help them develop a “voice” they can share with others in their communities.

Research on prevention programs for groups such as adolescents is not complete without following up over the long term to examine the impact and the teens’ intermediate and long-term outcomes. Although the teens and navigators formed close personal relationships, and the teens knew the researcher as well, attempts at post-test with teens who had graduated via text and email were unsuccessful—whether it was the navigators or the researcher who attempted contact. Building the evidence base will be an important focus for future research on SDOH as they relate to adolescent outcomes. Such work will bolster efforts to engage teens in health-related programming. Efforts to identify best practices for helping teens in high poverty areas avoid falling into systemic “cracks” and avoid becoming prey to SDOH are urgently needed, but programs such as this program hold promise for enhancing teens’ opportunities, health, and skills in the short-term, and have potential for having an effect on their long-term outcomes.

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Table 1

Empowerment and Connectedness to Self-in-Present & Future: Pre-test and Post-test

| | Pre-test (n=28) | Post-test (n=26) | p-value | n |
|--|--------------------|---------------------|---------|--------|
| Empowerment: Summed Scale Mean (SD) | 4.14 (2.95) | 3.38 (2.16) | 0.08 | 24 |
| What happens in life is largely a matter of chance. (% Agree) | 62.5% | 50.0% | 0.68 | 24 |
| I do not have much influence over the things that happen to me. (% Agree) | 29.2% | 16.7% | 0.73 | 24 |
| The world is too complicated for me to understand. (% Agree) | 12.5% | 20.8% | 0.24 | 24 |
| A person has to live pretty much for today and let tomorrow take care of itself.** (% Agree) | 54.6% | 36.4% | 0.01 | 22 |
| The future is too uncertain for a person to plan ahead. (% Agree) | 30.4% | 13.0% | 0.57 | 23 |
| Adolescent Connectedness | | | | |
| Self in Present: Summed Scale Mean (SD) | 17.54 (2.78) | 18.11 (2.34) | 0.17 | 28, 27 |
| I can name 5 things that others like about me.* (% True, Very True) | 79.2% | 95.8% | 0.0043 | 24 |
| There is not much that is unique or special about me. (% True, Very True) | 25% | 20.8% | 0.18 | 25 |
| I really like who I am. (% True, Very True) | 84.0% | 88.0% | 0.14 | 25 |
| I have special hobbies, skills, or talents. (% True, Very True) | 92.0% | 96.0% | 0.42 | 25 |
| I have unique interests or skills that make me interesting. (% True, Very True) | 80.0% | 88.0% | 0.11 | 25 |

| | | | | |
|---|------------|------------|--------|-------|
| Self in Future: Summed Scale Mean (SD)* | 19.0 (1.7) | 19.6 (1.3) | 0.04 | 28,26 |
| I will have a good future. (% True, Very True) | 95.8% | 95.8% | 0.80 | 24 |
| Doing well in school will help me in the future. (% True, Very True) | 100% | 100% | 0.41 | 24 |
| I do things outside of school to prepare for my future. (% True, Very True) | 79.2% | 79.2% | 0.75 | 24 |
| I think about my future often.* (% True, Very True) | 95.8% | 100% | <0.001 | 24 |
| What I do now will affect my future. (% True, Very True) | 91.7% | 100% | -- | 24 |

**chi-square, p<.05*

-- *could not be calculated due to lack of variability; all teens reported "very true" at post-test.*

Empowerment: (%Agree)

Connectedness: (% True, Very True)

Figure 1

ECTC Logic Model



Figure 2

Programming Topics

