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Impact of Leadership Program on Personality  
Characteristics of At-Risk Youth

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## ABSTRACT

The use of leadership programs as interventions for at-risk youths has recently gained attention in popular media and psychology literature. This type of intervention presupposes that changes in personality style as well as developmental assets can be cultivated through leadership programming. Although current literature supports the benefits of mentoring and increased community involvement for at risk youths, there is limited research available about personality changes that may occur as a result of participation in leadership programs. The present study focuses on the C5 program, a five-year leadership program for at-risk youths from inner-city areas. A cross-sectional design sampling from participants in each of the five years of the program was used to assess potential personality changes that may occur while participating in the program. In the summer of 2008, participants from each class at the two sites (total  $N = 316$ ) completed the Adolescent Personal Style Inventory (APSI) and the Developmental Assets Profile (DAP). The APSI is based on the five-factor model of personality style. The DAP questionnaire is based on a developmental assets model of protective factors for youth. It was hypothesized that increased length of participation in the program will lead to significant growth in Emotional Stability, Openness to Experience, Conscientiousness, Agreeableness, and Extraversion relative to normative data. In addition, it was also predicted that developmental assets of personal, family, social, school and community contextual domains will significantly increase proportionate to length of participation in the program. Results of the present study revealed that although the mean scores of C5 participants are significantly higher than the normative sample in

nine of ten variables, there was no significant growth relative to age/gender based norms for the C5 participants in either the APSI traits or the DAP contexts. This pattern of consistently higher scores in the C5 participants suggests there may be a selection bias in the C5 population.

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## INTRODUCTION

### *Overview*

C5 is a program is designed to provide opportunities for at-risk youths from urban areas to develop leadership and positive personality traits. The program seeks to create a network of support for adolescents with high potential and limited resources, with the hope that this support will help these youths become motivated individuals, respectable citizens, and successful leaders in their communities. The C5 program consists of five years of year-round programming, with more intense, on-site, programming in the summers. It currently exists in four cities and serves approximately 1,300 adolescents. Despite recent literature about the role long-term community interventions plays in reducing risk behaviors and increasing positive developmental processes of support, empowerment, and higher levels of thriving in youths (Kegler et al., 2005; Scales et al., 2001; Scales, Leffert, & Vraa, 2003; Scales, Benson, & Mannes, 2006), there remains limited understanding about the personality changes and cultivation of developmental assets that may occur in response to C5 and similar programs.

The present study explored the potential changes in personality style as well as developmental assets that may be fostered through this type of programming. The sample consisted of current participants in the C5 program from the New England and Austin, TX sites. A cross-sectional design was used to sample participants across all five years of the program at the two different program sites. It was hypothesized that participation in the C5 program would positively enhance personality traits that otherwise tend to be fairly stable. Since it is possible

that any changes in the personality style of C5 participants may be of such small effect as to be difficult to detect, the developmental assets of adolescents were also measured. Personality was assessed with the Adolescent Personal Style Inventory (APSI), which is based on the five-factor model of personality, and measures Emotional Stability (reverse scored Neuroticism), Openness to Experience, Conscientiousness, Agreeableness, and Extraversion (Lounsbury et al., 2003). The developmental assets were measured with the Developmental Assets Profile (DAP), which is based in Search Institute's 40 Developmental Assets model (2008).

Statistical analyses compared the standardized scores of C5 participants to age-based norms. It was hypothesized that significant growth in the personality traits of Agreeableness, Conscientiousness, Openness to Experiences, Extraversion, and Emotional Stability would occur with increased length of participation in the program. In addition, it was also predicted that developmental assets in the contextual domains of personal, family, social, school and community would significantly increase proportionate to length of participation in the program. Positive results would suggest that long-term community interventions, such as the C5 program, are beneficial in decreasing risk behaviors and providing improved opportunities for success to at-risk youths.

### *Conceptual Background*

The limited understanding of adolescent psychological development results in difficulties in developing interventions for this age group. Consequently, the social problems often attributed to adolescence may be inadequately addressed. Typical adolescent development is characterized by a struggle between the roles and expectations of childhood and adulthood. Simultaneously, adolescents face challenges such as creating a coherent sense of self and gaining confidence (Petersen, Leffert, & Graham, 1995). At-risk youths, in addition to the normal range of

difficulties expected in adolescence, such as puberty and peer pressure, face many other problems, such as domestic violence, sexual abuse, gang violence, and substance use. Other risk factors considered in defining “at-risk” status are socioeconomic status (SES), race, family composition, limited educational opportunities, and the prevalence of drugs and gangs in the neighborhood. From a developmental perspective, the effect of these risk factors can be long lasting; thus, it may be necessary to address them through intensive interventions (de Anda, 2001; Larson, 1998).

The public education system is under scrutiny for its limitations and is often blamed for low graduation rates. School-based programs have started to address some of these concerns and show some promising outcomes (C5, 2007). However, it is presumptuous to assume that the problems lay solely within the school system (Tolan, Gorman-Smith, & Henry, 2003). Indeed, focusing only on the limitations of the school system prevents a comprehensive understanding of broader social issues that may impact the lives of at-risk youths. In addition to the problems and limitations that exist in the education system, at-risk youths may also be impacted by the missing components of opportunity and social support. As noted earlier, the complex difficulties and stressors that contemporary at-risk teens face are related to their total environment, which includes their home, family, community, and school. A deficiency in part of their environmental support system can be considered a likely suppressor of their potential achievement (Brown, Mounts, Lamborn, & Steinberg, 1993; Collins et al, 2000).

These factors, along with the negative expectations of society, may limit an at-risk teenager’s self-efficacy and ability to hope for success (Shiner & Caspi, 2003).

Accomplishments such as attending college, or even graduating from high school, may seem out of reach. Despite the possibility of substantial innate potential, at-risk youths may demonstrate a

fatalistic and negative attitude of accepting their limited opportunities and circumstances (Offer et al., 2002). Any intervention program seeking to change outcomes for these at-risk youths must address potentially demoralizing influences such as limited opportunities in education, neighborhood violence, and drug activity. Although many non-profit organizations and corporations offer scholarships and support for young adults in college, often youths with immense potential may be hindered in their development due to their high-risk environments and may be unable to take advantage of these programs. This lack of resources, role models, and hope for a positive future may lead adolescents either to give up on trying to succeed or to become involved in antisocial behavior (Petersen, Leffert, & Graham, 1995; Tolan, Gorman-Smith, & Henry, 2003).

#### *C5: The Intervention*

The malleability of the mind, as well as the ability to learn and to adapt, are assets of adolescents that may be useful for creating an effective intervention program for at-risk youths. The study and application of youth leadership development programs has recently increased within the field of preventative community interventions; likewise, the notion of studying the role positive mentoring plays in helping at-risk youths has gained popularity in various capacities, including social outreach program and clinical interventions. Behavioral interventions, such as those often utilized in psychotherapy for externalizing disorders, have been modified for application in leadership programming for at-risk youths. Beyond the clinical use of cognitive restructuring techniques to address externalizing behavioral disorders, many programs for at-risk youths aim to decrease these disruptive or aggressive behaviors by promoting alternative behaviors and activities. Some notable behavioral interventions in these programs include the implementation of alternative behaviors such as community involvement, peer

mentoring, and outdoor adventure challenges. The addition of these activities to preventative programming for at-risk youths appears to be valuable in the development of positive personality traits and assets (Scales et al, 2001; Scales, Benson, & Mannes, 2006).

The C5 program is designed to provide leadership opportunities and experiences to at-risk youths in several urban areas. The program was developed by Coca-Cola Enterprises in 1999 with the vision of providing a support network for youths with high potential and limited resources. Thus, the goal of the program is to provide opportunities for growth that may help these youths become respectable citizens, successful leaders in their communities, and motivated individuals.

The C5 name reflects the purpose and methodology of the program. The five 'C's of the program are encapsulated in the following traits: character-driven, community-focused, challenge-ready, college-bound, and committed to a better future. The C5 Youth Foundation (C5) addressed the critical issue of why these values are necessary for the adolescents by suggesting that the success of these at-risk teens depends on their abilities to be committed leaders, engaged citizens, and adequately skilled individuals. However, the C5 (2007) noted that the 30% national dropout rate among at-risk youths is associated with limited opportunities for economic success and making positive contributions to society.

The goal of the C5 program is to provide at-risk youths with the supports and opportunities that may allow them to envision and develop a better future. Through the enhancement of basic social skills as well as confidence, the program serves to increase opportunities for success, prepare and motivate the participants for college, work, and life and inspire them to become role models in their communities.

The C5 program is composed of five years of intensive leadership experiences in a summer camp setting, year-round leadership development programs and community service, and preparation for continuing education and career development. Goals and methods of the program were developed by the C5 to incorporate the critical elements of leadership development. The C5 approach is similar to other leading developmental models, including the Five Action Strategies, associated with the Developmental Assets model, from the Search Institute (2007), which include: (1) engage adults as positive influences; (2) mobilize young people to recognize and use their skills and strengths by listening to their input and including them in decision making; (3) activate sectors of the community such as schools and human service organizations; (4) invigorate programs to be accessible to youths; and (5) influence civic decisions to improve policies for supporting these positive endeavors. Similarly, the focus for C5 is to: (1) build strong relationships between youths and adults; (2) emphasize the commitment that caring adults can make to the adolescent's future; (3) introduce new activities and opportunities for leadership, expanding their horizons; (4) engage them in community service and other challenging activities to build self-confidence and improve their self-efficacy; (5) introduce the possibility of higher education and a college degree, as well as other career opportunities. Similar to the approach of the Five Action Strategies, C5 also emphasizes the need for long-term integration of opportunities to develop leadership skills, serve the community, interact with caring adults, and build long-term relationships with peers on similar journeys (C5 Youth Foundation, 2007).

### *C5 Program Progression*

The intensity of the program increases from year to year. As such, each year of the program has different prerequisites and goals, as well as different main themes.

The main theme of the first year is “Learning to Lead Myself.” The first-year group is composed of rising eighth graders who participate in four weeks of summer camp where self-exploration and basic life and leadership skills are taught. Some of the activities used to convey the lessons include outdoor adventures such as a ropes course, wall climbing, and hiking. Leadership training, social awareness programs, journaling, and public speaking are each part of daily activities designed to broaden and enrich the youths’ experience of the physical and emotional challenges they face during the summer camp experience. At the end of their first month at camp, each adolescent completes a leadership development plan that outlines his or her goals for the upcoming year. Leadership plans are comprised of personal academic goals, as well as goals for involvement in extracurricular activities such as sports, music groups, or service organizations. During the course of following school year, the youths are required to participate in four to six community group learning experiences reflective of the year's theme and volunteer 30 or more hours of community service, and carry out their personal leadership development plan for the year. Year-long activities, volunteer hours, and leadership plans are monitored by the C5 Director and the Community-Youth Liaison Director.

The theme of the second year of camp is “Learning to Lead Others.” The second-year students are rising ninth graders who are encouraged to let their behaviors and attitudes serve as examples to the first-year class. Their ongoing relationship with staff and peers provides a context for their ability to continue to lead themselves and begin to lead others. The youths have the opportunity to plan and organize an off-site trip and to begin providing leadership for camp activities. They participate in a slightly longer camping trek and create another detailed leadership development plan. During the following school year, group activities supplement their previous summer’s experience as they work towards their leadership goals and begin to plan for

the longer backpacking wilderness trek of their third year. The requirements of community service increase to 40 hours throughout the school year.

“Expanding My Horizons” is the theme of the third year in the C5 program. The purpose of the third year’s programming is to have the participants challenge themselves and demonstrate the leadership skills they have acquired in the previous two summers. The teens prepare and plan for a 14-day backpacking trip, often in the Big Horn Mountains of Wyoming. The adolescents must apply their survival skills and work effectively as a team. After their return to camp, they share their experiences with the younger participants. Throughout the course of the following school year, they collaborate on a community service project and individually research colleges they would like to visit during the campus tour the following summer. The community service requirements increase to 50 hours and participants continue to work on their leadership development plans.

The theme of the fourth year of the C5 program is “Exploring My Future.” These fourth-year participants, who are rising juniors, do not attend camp, but go on a 10-day college tour to explore regional schools so that they can begin to increase their knowledge about post-secondary education and career opportunities. During this trip, the adolescents engage in a volunteer service project in one of the communities they visit. During the school year, the participants, with the assistance of C5 staff who can provide direction and information, further develop their options and plans for their futures. Some participants visit additional colleges and trade schools during the school year. The community service requirement for this year is 60 hours.

“Engaging My Community” is the theme of the fifth and final year of the C5 program. The fifth-year students participate in a week-long community leadership experience in the summer to further understand how decisions are made in their communities and how the needs of

their communities are met. They have the opportunity to work directly with policy makers in their community to better understand the importance of issue advocacy in their communities. The teens create a multimedia presentation about their experience and share it with younger participants. During their senior year in high school, teens complete their leadership portfolio, engage in a major volunteer project, and take part in a series of seminars designed to outline the steps to fulfill their future goals.

Progression through the program requires a strong commitment from the youths, parents, and the C5 staff. Success in the program is defined by positive outcomes such as graduating from high school; pursuing a college education or meaningful employment; positively contributing to their community; respecting diversity and differences; developing positive relationships with peers and adults; and acquiring leadership skills in the context of self-awareness, communication, group effectiveness, decision making and problem solving. Past successes have been quantified by tracking graduation and attrition rates, as well as through the use of other measures. For example, C5 has incorporated a survey developed by the Youth Development Strategies, Inc. (YDSI) to assess the experience from the perspective of the participants, as well as to determine their progress toward the outcomes and goals of the C5 program. Also, Efforts 2 Outcomes software is used to track participant demographics, program participation and outcomes. Since the development and implementation of the C5's goals and programming, approximately 90% of the students from the first four graduating classes have enrolled in college; of these students, 89% are people of color; 90% come from low-income homes; and 72% are first-generation scholars.

*C5 Participant Selection Criteria*

Among the risk factors considered in defining “at-risk” status for participants in the C5 program are socioeconomic status (SES), race, family composition, and the prevalence of drugs and gangs in participants’ neighborhoods. C5 incorporates an intense and targeted selection process to find diverse youths among the individuals that have been nominated by community partners in the city. Some of these nominating organizations are specific middle schools, or community organizations serving at-risk youths, such as City Year and Big Brothers, Big Sisters. Approximately 200 applications are received from high-potential seventh grade students who convey a desire to succeed in school, maintain a B (+ or -) grade-point average, and who currently demonstrate some leadership skills. Selection is also based on the previously noted risk factors, including limited family income (\$10,000 per year/per family member or below) and limited community resources. The youths must go through a rigorous application and interview process. The nominated students submit a required application with an essay, and also participate in two interviews. The selection committee then chooses and enrolls approximately 72 rising eighth graders each year.

In terms of the demographics of the participants, the C5 attempts to reflect the general population of the metropolitan area that participants are from. A recent examination of the 1,283 current participants revealed that approximately 47% of the participants are male and 53% are female. Racial composition includes 35% African-American, 27% Hispanic, 21% Caucasian, and 17% “other” (which includes multiethnic). Approximately 25% of the participants meet criteria for living in poverty (i.e. below \$19,500 for a family of four) and nearly all are from homes with incomes below \$10,000 per family member. Approximately 61% come from single-parent/non-

parent homes. Generally, most of the participants are from neighborhoods with limited positive resources and many significant risk factors (i.e. high prevalence of gangs and drugs).

### *Theoretical Foundation*

Several behavioral models that integrate biological influences are foundational for an intervention such as the C5 program. Scarr and McCartney (1983) developed a model that attempted to explain the interaction between parental genotype, child genotype, child phenotype, and child's environment (see Figure 1). They suggested three major pathways for an individual to interact with his or her environment. These pathways include passive, evocative and active. As demonstrated in Figure 1, parental temperament can influence the child's environment providing a parent source of influence in addition to the genetic pathway. Thus, in early childhood, parents create a 'passive' pathway insofar as the environment in the home is a significant reflection of their genes. The child also 'evokes' other types of environments, possibly as a result of their temperament or their attitudes. The child also 'actively' pursues an environment, referring to as niche picking, based on the integration of all these external and internal influences. Although the implication of the model is that a strong link exists between genes and environment, it is also notable that there is reciprocity between the child's environment and their phenotype, which suggests that changes in environment may influence personality development. Increasing opportunities for growth and new experiences may lead to the development of more "positive" personality traits. Considering the 'evocative' versus the 'active' pathways in this scenario would suggest that certain traits would lead a particular individual to get involved in a leadership program such as C5 (Scarr & McCartney, 1983). Thus, the present study evaluated the positive traits that are thought to be related to initial involvement in C5, as well as those positive personality traits that could develop as a result of participation in the C5 program.

Mapping the Scarr and McCartney model onto the bio-ecological model of Bronfenbrenner (1994) further demonstrates the spheres of influence that genes and environment can have on the development of an individual (Figure 2). This model employs detailed contextual systems to integrate the behavioral, biological and environmental factors that

Figure 1. Scarr and McCartney's genetic→environmental model.

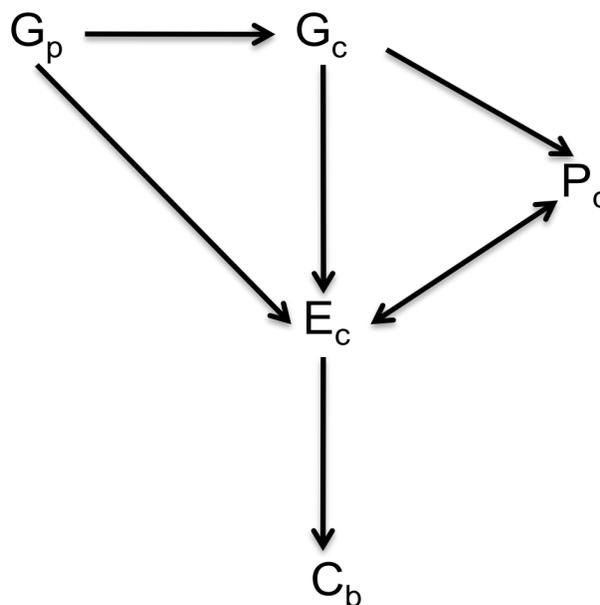


Figure 1. The model of behavioral development as parent's genotype ( $G_p$ ) influences both the child's environment ( $E_c$ ) and child's genotype ( $G_c$ ). The child's genotype also influences the child's environment ( $E_c$ ) and the child's phenotype ( $P_c$ ), both of which interact with each other to develop the child's behavioral expression ( $C_b$ ).

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\*From "How people make their own environment: A theory of genotype to environment effects." By S. Scarr and K. McCartney, 1983. *Child Development*, 54, 425. Copyright 1983 by the American Psychological Association. Reprinted with permission of the author.

Figure 2. Bronfenbrenner bio-ecological model.

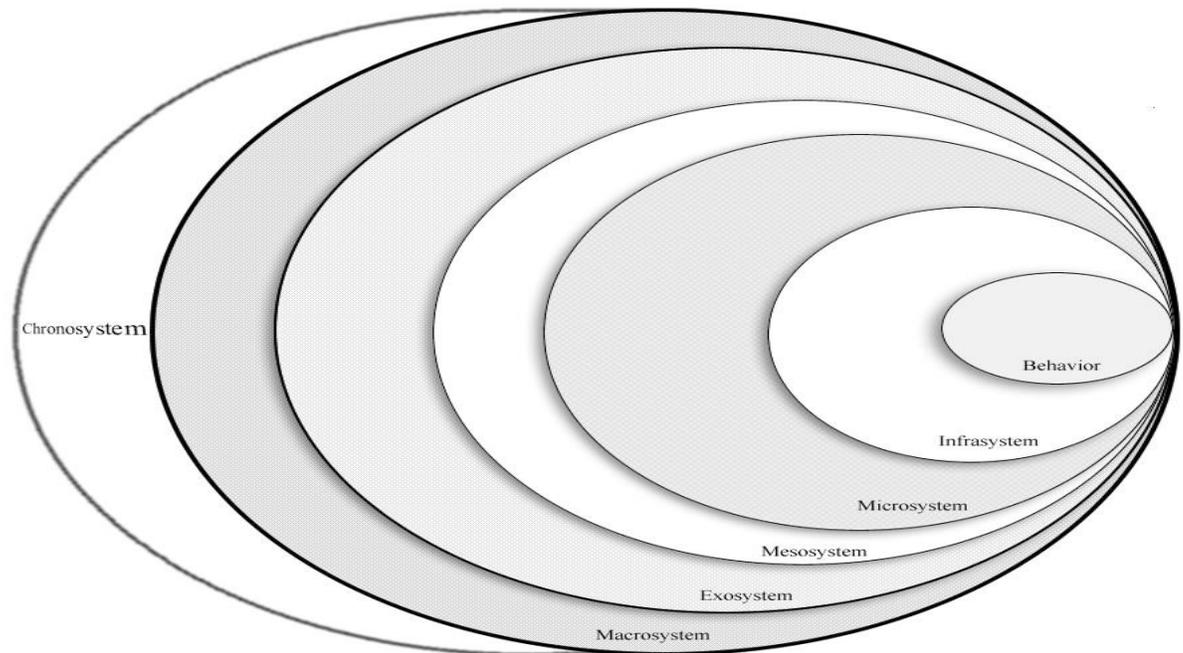


Figure 2. The bio-ecological contextual systems that Bronfenbrenner used to describe factors influencing an individual's life. Demonstrating the integration of the infrsystem and behavior for a more complex view of the individual.

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\*From "Nature-nurture reconceptualized in developmental perspective: A bioecological model." By U. Bronfenbrenner and S.J. Ceci, 1994. *Psychological Review*, 101, 562. Copyright 1994 by the American Psychological Association. Reprinted with permission of the author.

influence people. The contextual systems are centered around an individual; the individual is distinguished as being comprised of his or her “behaviors” and his or her “infrsystem.” The infrsystem is composed of the temperament, genes, personality style, tendencies and propensities of an individual, which interact and directly influence an individual’s behavior. The next contextual level is the microsystem, which includes entities and influences such as family, peers, school, etc. This portion of Bronfenbrenner’s model is similar to the model of Scarr and McCartney (1983) in that parental genes (microsystem) and the child genes (infrsystem) influence the environment, behaviors, phenotypes or personalities of the child. The next contextual system is the mesosystem, which is the interaction of two or more microsystems, such as how peers and parents interact. The next contextual level, the exosystem, is comprised of larger influences such as school systems or transportation systems. The macrosystem is representative of the broader societal influences or cultural implications on an individual, such as political or economic systems (Tolan, Gorman-Smith, & Henry, 2003). Finally, the chronosystem accounts for the sociohistorical context or the dimension of time and its influence on the individual (Bronfenbrenner & Ceci, 1994).

The global implication of these interaction models is that environmental factors, which may be influenced by genes, can also be impacted through interventions. The different contextual systems suggest that many levels of external influences impact children’s lives. The importance of the direct relationship between the factors at the microsystem level and the individual’s behaviors is notable; specifically, the notion that family, peers, and school are the most pertinent influences suggests that interventions on this level would be beneficial for at-risk youths. Also, considering the mesosystem level, where two microsystems interact, also suggests the importance of integrating an at-risk youth’s resources to provide adequate support and

facilitate positive behavioral changes (Yoshikawa, 1994; Zigler, Taussig, & Black, 1992). In sum, the overlap of the Scarr and McCartney (1983) model with the Bronfenbrenner (1994) model results in a broad theoretical framework which considers both environmental and biological influences that must be considered when developing an intervention such as the C5 program.

### *Adolescent Development*

Adolescence is defined as encompassing the period of time from approximately age 10 to the late teens or early twenties. A number of biological, psychosocial and cognitive changes occur during adolescence. For example, the onset of puberty occurs during this time, impacting biological development, interpersonal relationships, as well as personality development. The brain is not fully developed during adolescence, and the risk-taking behaviors that often characterize adolescence have been associated with this incomplete development (Biro & Dorn, 2006; Petersen, Leffert, & Graham, 1995). Factors such as hormonal surges and peer pressure impact the environment the adolescent actively pursues during this period of time, increasing the likelihood that at-risk youths will experience increased potential for unsafe situations.

An increase in the production of androgens marks the beginning of the biological changes that occur during puberty. The adrenal glands mature during this time, leading to further development of sex organs and resulting in the appearance of secondary sex characteristics. The intense hormonal shift that characterizes the biological changes of puberty has been related to reaching a critical weight. Leptin, a brain protein that is released by fatty tissue, is necessary for catalyzing the onset of puberty (O'Rahilly, 1998). Obesity resulting from poor diet is a problem found more commonly in lower SES groups than in higher SES groups. Wu, Mendola, and Buck (2002) suggest that puberty begins earlier for African American and Hispanic girls than for

Caucasian girls. The interaction between ethnicity and SES, both of which are correlated to at-risk status, indicates premature onset of puberty and biological development for at-risk adolescents.

The cognitive development of adolescents can also impact the type of environment that is sought out by an individual. Cognitive development occurs at a slower rate than the pubertal maturation of the body (Biro & Dorn, 2006; Petersen, Leffert, & Graham, 1995). In essence, adolescents reach physical maturity without having fully developed rational abilities to process information and make appropriate decisions. Specifically, the limbic system and the prefrontal cortex, the executive functioning areas of the brain that integrate cognitions and emotions, develop particularly slowly during adolescence. The result is an increased likelihood of emotionally-laden decision-making that may be irrational (Petersen et al, 1995). This increases the opportunity for risky behaviors, especially in the context of delinquency, or experimenting with sex or drugs. In addition, the potential for aggressive behavior in volatile situations increases during adolescence as a result of more impulsive and emotion centered behaviors. Furthermore, as adolescent often lack experience with stressful situations, they may regress to responding primarily with emotions. Piaget's (Piaget & Inhelder, 1969) cognitive developmental model provides an outline for some of the cognitive abilities acquired during adolescence. This stage of 'formal operations' is characterized by an increased capacity for abstract thought and hypothetical-deductive reasoning. One criticism of this stage theory is that it presupposes the existence of environmental stimulation and opportunities for abstraction of thought (Papalia, 1972; Schauble, 1996). Piaget (1972) later suggested that the development of formal reasoning in adolescence can be attributed to brain maturation and expanding environmental opportunities, suggesting that cognitive development can be greatly influenced by differences in schooling and

socio-cultural influences. In the case of at-risk youths with limited educational resources in the home and at school, it is likely that these youths will have decreased opportunity for development in this area (Schauble, 1996).

Psychosocial changes during adolescence are characterized by identity development. Gender identity, cultural identity, sexual identity, peer group identity, and moral identity are all different levels of personality development that occur during adolescence. Erikson (1968) suggested that adolescence is the period for creating a coherent conception of the self; it is when individuals can solidify personal goals, values, and beliefs to which they are committed. They may synthesize their partial identities (i.e. gender, moral, etc) into a novel psychological structure which reflects ideal self of the adolescent. Often adolescents may experience an ‘identity crises,’ which can cause distress and may not fully be resolved until adulthood. Clique formation and group identities often serve to facilitate self-discovery for adolescence. Developing an attachment to peers who may be similar in thought, dress, and social attitude contributes to the microsystem interaction with the individual’s identity development (Collins et al, 2000).

### *Personality Development*

Increasing our knowledge about personality changes that may occur during participation in the C5 program could be valuable in helping us understand the implications and applications of this type of intervention. As noted above, there is a need to comprehend how prevention programs can assist at-risk youths avoid negative activities that may endanger them or limit their future opportunities , and instead, encourage them to pursue more positive social groups and opportunities. One approach for measuring the impact of C5 interventions includes identifying personality changes that may occur throughout the participation in this program. Beyond

personality factors, as the bio-ecological model of Bronfenbrenner (1994) suggests, the impact of the C5 environmental factors can interact to influence what individuals perceive to be their personal assets. These assets can serve as protective factors for at-risk youths by increasing self-efficacy for success, connectedness with positive peer influences, and strong relationships with caring adults. In a study evaluating a mentoring program for at-risk youths, de Anda (2001) found that the concrete benefits from participating in the program, such as improved academic achievement and employment, were correlated with developing a deep and meaningful connection and relationship with their mentors. Also, Ungar, Dumond and McDonald (2005), performed a qualitative analysis of outdoor interventions for at-risk youths, basing their results on program evaluations and participant reaction to programming. Their results suggested that participation in camp activities such as outdoor adventure increased the youths' ability to build relationships and develop their sense of spirituality and purpose. Based on this finding, it is reasonable to explore and consider the nature of the impact the C5 intervention program has on personality changes and perceived developmental assets of the youth.

#### *Five-Factor Model of Personality*

Currently, one of the predominant models of personality is the five-factor model (FFM). The FFM is described as a "hierarchical organization of personality traits" (McCrae & John, 1991) into five basic dimensions or characteristics. The five factors are Extraversion, Openness to Experience, Conscientiousness, Agreeableness, and Neuroticism. The historical development of this model has been embedded in the development and research of clinical psychology, personality psychology, behavioral psychology, and social psychology. The culmination of years of lexical research, which employed factor analyses and multivariate analyses of natural-language trait-descriptive adjectives, has resulted in the development of the five-factor model.

Some examples of the adjectives, Q-sort items and Questionnaire scales used to define the five factors were given by McCrae and John (1992). Researchers differed in their use of the lexical approach; some used abstractions of words from the dictionary, others clustered synonyms to be rated to contrast groups of adjectives.

The work of many factor-analyzing psychologists, including Guilford, Cattell, Fiske and Eysenck, throughout the middle of the 20<sup>th</sup> century (i.e. approximately 1949-1970s) laid the groundwork for the isolation of the factors considered part of the Big Five. Prior to these researchers, the statistical work of Thurstone (1934) and the compilation of descriptive trait adjectives by Allport and Odbert (1936) developed a foundation for conceptualizing the notion of generalizable personality traits. Although these researchers conducted their broad searches using differing factor analysis techniques, Tupes and Christal (1961) systematically found five recurrent factors using personality ratings in eight different samples. In their 1961 publication, Tupes and Christal noted the importance of negotiating the research done before them, specifically citing the discrepancy between Cattell (1946) and Fiske (1949). Cattell had identified approximately a dozen personality factors, whereas Fiske had been significantly more conservative with his estimates. Tupes and Christal (1961) suggested that prior to their own study, there were at most three known recurring personality factors including: Extraversion-Introversion, Emotionality-Stability, and Conformity-Independence (Eysenck, 1967).

Replication by Norman (1963) of Tupes and Christal's (1961) work attracted more attention to the notion of basic dimensions of personality. The fundamental nature of these factors was theoretically and empirically supported through self-report measures, observation measures, personality checklists and questionnaires used across different age groups and different languages. John (1990) found that factors were consistently present and derived from

English, Japanese, German and Dutch samples. Costa and McCrae (1990) found that the five factors had convergent and discriminant validity between observers and across instruments. The importance of natural language personality traits in Big Five Personality model provides an epistemological rationale for employing such an approach in understanding personality development. The lexical hypothesis suggests that the words that humans develop for understanding human differences, behaviors and attitudes gives meaning to how humans gain knowledge about 'personality.' Thus, the basic dimensions of personality can be decoded by analyzing and studying the words which humans use to describe themselves and one another. The clinical application of this approach has been through personality assessment. The use of questionnaires, including self-report and observer ratings, were used in conjunction with the lexical approach to demonstrate the comprehensiveness of the Big Five Personality Model. Costa and McCrae (1985, 1987) demonstrated convergence for the five factors across observers and instruments when they analyzed questionnaire measures and adjective scales in a sample of adults who also had peer ratings on similar measures.

Despite the initial acceptance and also recent emphasis on the FFM, there was a period of personality psychology research history during the 1970s that called into question the implicit nature of the model. Challenges and controversies throughout this period nearly caused the eradication of the five factors. The controversy surrounding the Big Five Personality Model continues into recent literature that challenges the veridicality of the personality traits. The notion that these traits may be cognitive artifacts rather than realistic descriptions of personality suggests that an individual's implicit personality cannot be captured through universal trait descriptors (Borkenau & Ostendorf, 1990). However, a counterpoint to this argument is the cross-cultural validity and application of the Big Five Personality Model. Additionally, the

predictive value of the Big Five for real life outcomes (e.g. divergent thinking abilities, marital adjustment and divorce, and coronary disease) generally negates the issue of the potential cognitive biases and artifacts suggested (McCrae & John, 1992). Although the controversy continues in the present research and applications of personality assessment, research and reanalysis of early data sets by Goldberg (1981) and others has generally renewed the value of the model in personality psychology.

Until recently, the research and application of the FFM was generally focused on adults. Shiner and Caspi (2003) provide an overview of the importance of identifying the link between child and adolescent personality development and adult personalities by utilizing the FFM. The practical nature of increasing knowledge about the predictive value of the five factors in children and adolescence is emphasized by Shiner and Caspi, who suggest that a five-factor assessment may help with preventative interventions for psychopathology and risk behaviors. The authors employ the Scarr and McCartney model (1983) noted earlier to demonstrate the interaction between temperament/genes, environment and personality development.

Shiner and Caspi (2003) emphasize the evolving nature of personality, indicating that maturation and expression of behaviors throughout childhood and adolescence will result in changing personality structures throughout development. They also suggest the importance of personality internalization, which is the recognition and integration of an individual's self-perception into their self-concept. Furthermore, the pattern of personality internalization is based on social expectations from infancy throughout middle childhood and into adolescence. Shiner and Caspi also propose that changes in environment and social role expectancies can alter an individual's attitudes and personality style throughout adolescence. Identity construction, often based in social comparisons and temporal comparison (i.e. an individual comparing themselves to

themselves over time), is an activity that gains importance throughout late childhood, adolescence and into adulthood. The contextual perspective on the stability of personality traits is presented, suggesting that life changes and role transitions impact personality development. The idea that personality can be fluid and flexible provides support for the use of interventions to disrupt maladaptive development and to increase positive trait development, such as the process used in the C5 program. Using the FFM to assess the personality style of youths is implicit from the authors' perspective; however, there is an emphasis on negotiating the stability of the personality factors with the possibility of continuous growth and development.

Although the FFM has increasingly gained acceptance for use in adolescent populations, there has been limited research towards developing a measurement tool for adolescent personality (Bratko & Marusic, 1997; Costa & McCrae, 1990;). Conceptualizing adolescents in terms of FFM traits may provide some insight into the stable and developing aspects of personality in this age group. Lounsbury et al. (2003) report that diverse criteria, including intelligence, school performance, future career success, social competence, peer relationships, and juvenile delinquency, are related to the FFM traits.

There is evidence that many of the risk factors assessed and selected for by the C5 program guidelines are associated with some FFM traits. For example, Agreeableness and Conscientiousness have been negatively correlated with juvenile delinquency (John et al, 1994; Robins, John, & Caspi, 1994). Graziano and Ward (1992) reported that there is a significant positive relationship between Extraversion and social competence. Similarly, Medvedova (1998) indicated that Neuroticism was significantly related to avoidance strategies and negatively related to direct problem solving, whereas Extraversion was related to support seeking and direct problem solving. Furthermore, Medvedova (1998) noted that Conscientiousness was

significantly positively correlated to using active coping strategies. Based on these results from previous studies of FFM traits, the present study hypothesized there would be direct correlations between length of participation in C5 and FFM traits (reverse for Neuroticism).?

### *Forty Developmental Assets*

In addition to measuring personality changes, as noted in bio-ecological models of Scarr and McCartney (1983) and Bronfenbrenner (1994), the present study also investigated environmental assets that may be associated with change among participants in the C5 program. The Search Institute has designed a measure to assess the development of assets that serve as protective factors for youths. These Forty Developmental assets are defined from a strength-based approach, serving to identify the relationships, opportunities, abilities, and values that adolescents require for healthy development. Based in applied research, the Development Assets are related to the constructs of prevention and resiliency. The prevention construct is centered on the protective factors that decrease risk-taking behaviors such as substance use, aggression, sexual intercourse and dropping out of school. The resilience construct focuses on the adolescent's capacity to adjust and cope with adverse life situations. These two major constructs address the underpinnings of the C5 program, an intervention to prevent antisocial behaviors in at-risk youths who have faced difficult life circumstances. Using this measure would allow a greater understanding of whether the C5 program is actually enhancing the adolescent's protective factors.

The Forty Developmental Assets are divided to measure both the external and internal assets of the individual. The external assets include the support and empowerment experienced from relationships, institutions and community. As well, external assets assesses for the adolescent's sense of boundaries and expectations, and how clearly they understand the

appropriateness of various behaviors. The last external asset area is opportunity to participate in meaningful programs and activities to constructively use their time. The internal assets of the adolescent focus on nurturing the internal qualities he or she possesses. These internal assets include positive values and social competencies to make positive choices and develop fulfilling relationships. Another internal asset is the long-term commitment to learning and education to improve their abilities and the opportunities for success. Finally, the last internal asset is a positive identity, which assesses how adolescents perceive their self-worth and abilities. Overall, the internal and external assets are measured by the five contextual domains: personal, family, social, school and community.

In recent studies performed by the American Camping Association (ACA), the Forty Developmental Assets model was used to measure the impact of camp participation in approximately 15,000 children and adolescents in the United States. The Directions (ACA, 2005) and Inspirations (ACA, 2006) studies sought to better understand the influence and outcomes of participation in summer camp. Directions (ACA, 2005) found that parents, camp staff, and campers reported significant growth in the campers in areas of positive identity, social skills, thinking and physical skills, spirituality, and positive values. The results of this study, which surveyed eighty camps, found that campers reportedly become more confident, develop better social skills, become increasingly independent, demonstrate more leadership qualities, become more adventurous and try new experiences. The Inspirations (ACA, 2006) study drew on the results of the Directions (ACA, 2005) and collected more data from the eighty camps. The ACA found in this study that approximately 70% of campers experienced the highest, or developmentally optimal, level of support as compared to the average adolescent, who generally experiences approximately low (15-20%) levels of developmental support. High quality

relationships with adults were the primary source of support for the youth, and found to be the strongest predictor of possessing high developmental assets.

Similarly, the notion that developmental assets can be gained through neighborhood and community resources has gained increasing support. Kegler et al. (2005) interviewed 1,350 inner city youths and their parents to assess their sense of neighborhood safety and personal assets. There was a significant association between what the parents and youths perceived to be level of neighborhood safety and their assets of adult role models, peer role models and community involvement. Thus, an emphasis on a self-report assessment how an adolescent's perception of their personal, community and family assets can contribute to developing an effective intervention for preventing risk taking behaviors in at-risk youths.

Another developmental asset, the involvement and contribution of non-family adults, has been shown to profoundly influence well-being and risk behaviors. Scales, Benson, and Mannes (2006) studied a cross-sectional national sample of 614 adolescents (12-17 years old) and a longitudinal sample of 370 sixth through eighth graders for the role of involvement of non-family adults. The results indicate that greater and qualitatively differing types of engagement with non-family adults was associated with greater community involvement of youths, higher levels of positive developmental processes of support, empowerment and boundary setting, higher levels of thriving and lower levels of risk behaviors (Scales, Benson, & Mannes, 2006).

### *Research Questions*

Currently, there is limited research considering personality changes and development of protective factors from participation in a leadership camp for at-risk youths. Although Ungar, Dumond and McDonald (2005) found a correlation between use of outdoor adventure programming and the development of relationship building skills, a sense of spirituality, and a

sense of purpose in at-risk youths, the question remains unanswered as to what types of personality changes may occur and the nature of the protective factors gained. Limited understanding of the personality development of youths through this type of programming is truly a hindrance for broader application of this type of intervention. Overall, there is a lack of research demonstrating significant changes that support the cost of these types of interventions.

The current study is novel in the use of both a traditional five-factor personality assessment in conjunction with a youth assets questionnaire. The primary question for the current study is whether long term participation in the C5 program can impact personality changes and developmental asset growth.

### *Hypotheses*

1. There will be significant increases in participant report of Openness to Experience, Conscientiousness, Agreeableness, Extraversion, and Emotional Stability relative to the normative sample with increased length of participation in the C5 program.
2. There will be an increase in participant report of five contextual domains (Personal, Family, Social, School and Community) of the Developmental Assets relative to the normative sample with increased length of participation in C5 program

## METHODS

### *Design*

The current study used a cross-sectional design to evaluate the personality patterns and developmental assets of adolescents participating in the C5 program. The primary independent variable was the year in the program. The dependent variables include the FFM personality traits (i.e. Emotional Stability, Extraversion, Openness, Conscientiousness, and Agreeableness), and also the main components of the Developmental Assets Profile, including the five contextual domains of personal, family, social, school, and community assets. Scores of the participants were compared to standardized age-based norms in order to statistically account for maturation effects.

### *Participants*

All participants at both sites were given the choice to participate. Parent consent and child assent was obtained from 320 participants. Data was collected from these 320 participants between the ages of 12 and 18 over a period of 3 months. However 4 participants were excluded from the final data analysis as a result of missing data (i.e. age, gender, DAP, or APSI). The C5 program is comprised of five separate cohorts, each representing a different year in the program. Although each program site begins with approximately 50 participants in each class, there is an estimated rate of attrition of approximately 4-6 participants per year.

The criteria for inclusion in the sample were participation in the C5 program and parental consent (see Appendix A). The first year campers have met specific community service and

academic requirements to enter the program and begin their summer experience. Second, third, fourth and fifth year campers have successfully completed the previous years of camping, leadership programming, community service and academic requirements. There was no formal recruitment, although the parental consent forms with basic study information were provided to and signed both by parents/guardians and participants prior to the study. During the summer session, a day was selected for data collection when camp administrators and counselors were able to provide background information about the study to the participants. Campers were asked for their assent to participate in the study prior to data collection (see Appendix B).

The final sample consisted of campers from C5 programs sites in Austin, TX (N=162) and New England (N=154). The participants' ranged in age from 12 to 18 years old, inclusive, with each cohort being approximately one year apart in age from the cohort above or below. Chi-squared tests for independence were performed to examine the differences between gender and ethnicity by the year in the program. In terms of gender, the participant pool at each cohort level was comprised of approximately equivalent numbers of male and female participants at each site (see Table 1). The results of a chi-square test revealed there was no significant difference in gender between sites ( $\chi^2 (1, N = 316) = 2.74, p = .10$ ). Also, results of a between-subjects ANOVA did not reveal significant differences between sites in terms of gender  $F(1, 315) = .411, p = .522$ . The results of a chi-square test revealed there was no significant difference in gender between cohorts ( $\chi^2 (4, N = 316) = 3.41, p = .50$ ).

*Table 1**Number of Participants divided by Gender, Site, and Year in Program*

Year	New England		Texas		Total
	Female	Male	Female	Male	
1	26	16	34	26	102
2	23	14	16	17	70
3	18	13	15	17	63
4	13	2	16	12	43
5	15	14	4	5	38
Total	95	59	85	77	316

*Note:* Top row denotes site and gender.

In terms of ethnicity, the sample consisted primarily of African American, Biracial, Caucasian, and Hispanic individuals (see table 2, 3, and 4). As expected due to regional differences, the results of a chi-square test revealed a significant difference in ethnicity between sites ( $\chi^2 (6, N = 316) = 42.49, p < .01$ ) with significantly more Hispanic participants at the Texas site and more AA participants at the New England site. The results of a chi-square test revealed there was no significant difference in ethnicity between cohorts ( $\chi^2 (24, N = 316) = 24.07, p = .46$ ). In the overall participant sample, 2.9% of participants were Asian, 29.4% were African American, 19.6% were Caucasian, 22.9% were Hispanic, 1.3% were Native American, 15.3% were Multi-Ethnicity, and 6.3% described themselves as “other.”

Table 2

*Number of Participants by Ethnicity and Year at Texas*

	1	2	3	4	5	Total
Asian	1	0	1	0	0	2
African American	12	8	9	2	3	34
Caucasian	12	10	8	12	0	32
Hispanic	23	10	8	9	5	55
Native American	0	0	1	2	0	3
Multi-Ethnicity	11	5	3	3	1	23
Other	1	0	1	1	0	3
Total	60	33	31	29	9	162

*Note:* Top row denotes year in the program (e.g. 1 = first year, 2 = second year, etc).

Table 3

*Number of Participants by Ethnicity and Year at New England*

	1	2	3	4	5	Total
Asian	4	1	2	0	0	7
African American	16	15	10	6	12	59
Caucasian	6	4	10	2	8	30
Hispanic	5	4	3	2	1	15
Native American	0	1	0	0	0	1
Multi-Ethnicity	5	6	5	3	6	25
Other	0	6	1	2	2	17
Total	42	37	31	15	29	154

*Note:* Top row denotes year in the program (e.g. 1 = first years, 2 = second years, etc).

Table 4

*Percentage of Participants by Ethnicity at Each Site*

	Texas	New England	Total
Asian	1.2%	4.6%	2.9%
African American	21.0%	38.3%	29.4%
Caucasian	19.8%	19.5%	19.6%
Hispanic	34.0%	9.7%	22.2%
Native American	1.9%	0.7%	1.3%
Multi-Ethnicity	14.2%	16.2%	15.2%
Other	1.9%	11.0%	6.3%

*Note:* Not all participants reported ethnicity; this table represents relative percentages of those who responded to the question.

Income level and SES was assessed through stratifying the reported family income. Participants who reported their family income was below \$15,000 a year were labeled as ‘poverty;’ those who reported income between \$16,000 and \$35,000 as ‘low income;’ those who reported between \$36,000 and \$75,000 as ‘middle income;’ and those who reported incomes greater than \$76,000 as ‘high income.’ Approximately 94% of participants responded to the question of parents combined annual income. In the overall participant sample, 2.5% of participants reported their income level as ‘poverty,’ 13.3% reported their income level as ‘low income,’ 71.5% reported their income level as ‘middle income,’ and 6.6% reported their income level as ‘high income.’ This self-report information may have been impacted by participant bias and may potentially be inaccurate.

Fall and spring grade point average information, based on a 4.0 scale, was collected in a self-report question on the demographic survey. Approximately 55.7% of the participants reported their fall GPA and 54% of the participants reported their spring GPA. Table 5 represents the Fall GPA and table 6 represents the spring GPA. This self-report information may have been impacted by participant bias and may potentially be inaccurate.

*Power Analysis.* No data documenting the potential correlation between the C5 leadership program and personality and asset development has been established at this time. However, estimating a small effect size for a MANOVA [ $f^2(v) = 0.05$ ], an alpha level of 0.05, and a sample size of approximately 350 participants results in a power value of 0.98. This procedure is consistent with the methodology suggested by Cohen (1992) for determining sample size using the power analysis and effect size.

Table 5

*Percentage of Participants by GPA (Fall)*

Fall GPA	%
0 – 1.5	2.3%
1.6 – 2.0	4.0%
2.1 – 2.5	7.4%
2.6 – 3.0	20.5%
3.1 – 3.5	31.8%
3.6 – 4.0	34.1%

*Note:* Not all participants reported GPA; this table represents relative percentages of those who responded to the question.

Table 6

*Percentage of Participants by GPA (Spring)*

Spring GPA	%
0 – 1.5	2.9%
1.6 – 2.0	2.3%
2.1 – 2.5	7.5%
2.6 – 3.0	20.1%
3.1 – 3.5	30.5%
3.6 – 4.0	36.8%

Note: Not all participants reported GPA; this table represents relative percentages of those who responded to the question.

*Materials*

*Adolescent Personal Style Inventory (APSI)*: The Adolescent Personal Style Inventory (APSI), developed by Lounsbury et al. (2003), is a scale developed to measure the FFM personality traits in adolescents (see Appendix C). The APSI consists of 43 items that were reviewed for clarity by teachers, school psychologists, and students. The measure was developed and validated through eight studies involving 3,752 middle and high school students and demonstrated strong correlations with subscales of the NEO-FFI, with high internal consistency and reliability. The authors computed readability statistics using Microsoft Word 2000 software to determine grade level and reading ease of the instrument items. The Flesch-Kincaid grade level was 3.2 and the Flesch reading ease was 88.9.

Internal consistency and reliability are sound for the measure, as noted by Cronbach's alpha scores for each of the five factors: Emotional Stability, 0.86; Extraversion, 0.76; Openness,

0.81; Agreeableness, 0.78; and Conscientiousness, 0.82. Lounsbury et al. (2003) demonstrated small to medium effects for using the APSI to differentiate at-risk and leadership groups from comparison groups. They found that the leadership group scored significantly higher in Agreeableness, Conscientiousness, and Extraversion and lower in Neuroticism as compared to the control group. The at-risk group scored significantly lower than the control group for Agreeableness, Conscientiousness, Extraversion, and Openness to Experience. In addition, Lounsbury et al. (2003) performed a confirmatory factor analysis to assess the fit of the proposed model in a normative sample. The APSI normative sample used in the present study was composed of 1203 males and 2451 females between the ages of 11 and 18. Table 7 displays the number of males and females in each age group. In terms of ethnicity in the normative sample, 3.2% of participants were Asian, 4.8% were African American, 86.5% were Caucasian, 0.8% were Hispanic, and 4.0% described themselves as “other.”

Table 7

*APSI Normative Sample Frequency and Gender by Age Group*

Age	Frequency	Male	Female
11	317	162	155
12	246	125	121
13	318	159	159
14	320	134	186
15	309	164	145
16	384	192	192
17	270	103	167
18	287	164	123

*Note:* Frequency of age and gender information provided in a personal communication (Lounsbury, 2008).

*Developmental Assets Profile (DAP):* The Search Institute designed the Forty Developmental Assets Scale to assess the development of assets that serve as protective factors for modern youths. These Forty Developmental Assets are defined from a strength-based approach, serving to identify the relationships, opportunities, abilities, and values that adolescents require for healthy development. Based in applied research, the DAP (see Appendix D) is related to the constructs of prevention and resiliency. According to the Search Institute (personal communication, 2009) the DAP was constructed based on their previous measure *Search Institute Profiles of Student Life: Attitudes and Behavior* (“A&B”) survey. The A&B is a 156 item survey covering Developmental Assets, risk behaviors, thriving indicators, and deficits. The A&B is not designed for individual measure, however it provides detailed assessment of the presence and absence of the 40 Developmental Assets. It was not designed for measuring changes in assets over time or for purposes of program evaluation. The DAP was designed in response to requests from programs seeking individual scores or a measure for program evaluation. According to the Search Institute, the DAP was created with items that reflected the content of several A&B items to measure the individual assets in a category. They also report that there was “paraphrasing or close paralleling of an existing item” (personal communication, 2009) of the A&B. In addition, several new items were created by summarizing several A&B items into single DAP items. They indicated that the meaning of the constructs in the DAP were thus operationalized similar to those in the A&B. The method. The items chosen for the DAP were not empirically validated by the Search Institute; however, the creators suggest that high

correlation between the DAP and A&B provide support for the validity of the DAP items. At present time, there remains little evidence of the validity of the scales and contexts constructed in the DAP.

The DAP consists of 58 items that were reviewed for clarity by teachers, psychologists, school psychologists, and students. The authors computed readability statistics using the *Grammatik* computer software to determine grade level and reading ease of the instrument items. The average Flesch-Kincaid score for the 58 DAP items is grade 5.7. Of 58 items, 44 have a reading level below seventh grade, and a total of 54 items have a reading level below ninth grade. In other words, 93% of the DAP items have a middle school reading level or lower. Only 4 items have Flesch-Kincaid grade equivalents above eighth grade. Overall, the DAP items have an average reading level of 5.7. Internal consistency and reliability are sound for the measure, as noted by Cronbach's alpha scores for each of the five contexts: Personal, 0.83; Family, 0.87; Social, 0.87; School, 0.87; and Community, 0.85. Cronbach's alpha reliability coefficients for the DAP scales ranged from 0.71 to 0.76 in various reliability studies (Benson, Leffert, Scales, & Blyth, 1998; Scales, Benson, & Mannes, 2006; Search Institute, 2005).

The Forty Developmental Assets are composed of factors designed to measure both external and internal assets of the individual. External assets include support and empowerment adolescents experience as a result of their interpersonal relationship and institutional and community relationships. Internal assets of adolescents focus on nurturing the internal qualities he or she possesses. The five contextual domains measured are personal, family, social, school and community.

The personal context measures the individual psychological and behavioral strengths such as self esteem, valuing honesty, taking responsibility, planning ahead, managing frustration,

enjoying reading, and feeling in control of one's life. The social context is composed of assets based on social relationships with one or more people outside of the family, such as friendships, positive peer and adult role models, resisting pressure from others, resolving conflicts peacefully, being sensitive to others, and feeling valued by others. The family context measures assets related positive family communication and support, clear family rules, quality time at home, advice and encouragement from parents, and feeling safe at home. The school context is composed of assets related to clear and fair school rules, encouragement from teachers, a caring school environment, feeling safe at school, caring about school, being motivated to learn, and being actively engaged in reading and learning. Finally, the community context measures assets related to activities and involvements in the larger community such as sports, clubs, groups and religious activities, creative activities such as music and the arts, having good neighbors, accepting others, and helping in the community.

The DAP normative sample used in the present study was composed of 1167 males and 1179 females between the ages of 11 and 18. Table 8 displays the number of males and females in each age group. Information about the ethnicity of the normative sample was not available; however, according the DAP user manual (Search Institute, 2005), recent publications had utilized a sample that approximately 3.8% Asian, 57.7% Caucasian, 22.2% Hispanic, 4.2% were Native American, and 12.1% were Multi-Ethnicity.

*Demographics Questionnaire:* Demographic information, such as participant gender, age, and year in the program was collected from the participants by means of a questionnaire (see Appendix E). Additional questions gathered information regarding ethnicity, family structure (i.e., single parent, presence of step-parent, foster care, or adoption), number of siblings, parent's education level, family income (SES), and religious affiliation. Finally, academic standing will

be assessed by questions about the participant's grade level, current GPA, type of school (i.e. public, private, or charter), extracurricular involvement, and recent disciplinary history.

Table 8

*DAP Normative Sample Frequency and Gender by Age Group*

Age	Frequency	Male	Female
11	306	146	160
12	542	267	275
13	567	301	266
14	333	172	161
15	178	93	85
16	182	87	95
17	164	70	94
18	74	31	43

*Note:* Frequency of age and gender information provided in a personal communication (Sesma, 2008).

*Procedure*

Recruitment was based on participation in the C5 program. All C5 participants at the Texas and New England sites during one summer session were asked to participate. Detailed information for the purpose of authorization was given the C5 and other program officials. Prior to the data collection, program directors and counselors were informed about the investigators credentials and some details about the purpose of the study. However, to prevent coercion and participant bias, program directors and counselors were not provided specific outcome goals or the possible consequences of the results. In addition, limited information was given about the

proposed measures to any involved staff, with the exception of C5 administrators for purpose of authorization and permission to collect data.

Consent forms were included in the package of camp-related paperwork that was sent to the parents or guardians of each camp participant prior to camp session. Parents/guardians were sent a letter introducing the primary investigator and explaining the general purpose of the study (see Appendix A). These consent forms, signed by both parents and participants, were returned to the camp with the other paperwork collected when participants were brought to camp at the beginning of the session.

Packets of the assessment protocols (including the APSI, DAP and demographics questionnaires) were sent to the C5 program sites to the attention of the camp directors. A designated proctor at each site gathered the participants with parental consent one day during the summer session and introduced the study. The proctor explained the general purpose of the study, describing it as a study of personality. After being introduced to the topic, the participants were given the opportunity to decide whether or not they want to participate in the study.

After assenting to participate in the experiment, the participants were asked to complete the assessment measures. The proctor allowed program directors and counselors to supervise the group administration of the assessment in order to maintain order and also to limit the confounding factors associated with group administration (e.g., distraction or disruption by participants). After the questionnaires were completed and collected, all of the participants were verbally debriefed about the content and purpose of the study and the proctor addressed any questions or concerns that arose during the study. At the conclusion of data collection activities, participants were thanked for their time and the proctor informed the counselors and camp

administrators that the data collection was complete. The data was then mailed back to the primary investigator for coding and statistical analyses.

### *Data Analyses*

Data was entered into a computer database by undergraduate research assistants; error checks including randomized protocol confirmation were incorporated into the data entry routines. Protocol validity was determined by the validity criteria established by the creators of each assessment instrument. Protocols deemed to be invalid by these criteria, or protocols containing excessive missing data (i.e. missing age, year, gender), were discarded from the final sample.

Z-scores were created using age- and gender-based norms for both the APSI and DAP to standardize the participant scores on each factor of both of these measures. The Z-score was used as a means of measuring relative rate of change between years in the program as compared to the age-based normative sample. This standardization process statistically accounted for maturation effects expected across the age groups of participants in the program.

*Preliminary Analyses.* In order to assess whether the observed factor structures of the APSI conformed to those previously reported in the literature, as well as to determine whether the proposed structure is applicable to the present sample, a confirmatory factor analysis was performed using the statistical program AMOS. In a confirmatory factor analysis, a model is “confirmed” if the resultant fit is *not* different from what would find in the reference population. Thus, a rule of thumb for assessing fit of a model is  $p \geq .05$ . This rule, along with various goodness of fit indices, was used to assess the fit of the proposed model to the observed data.

*Primary Analyses.* As it was determined that the APSI was appropriate for use with the studied population, a MANOVA was performed to examine the various relationships of the

independent variables (i.e. year in program and site) with the dependent variables (e.g., participant's age-based normative scores on the FFM traits and developmental assets). A 2 X 5 between-subjects multivariate analysis of variance was performed on 10 dependent variables: (FFM traits) Openness to Experience (OE), Conscientiousness (C), Agreeableness (A), and Extraversion (Ex), and Emotional Stability (ES); and (DAP Contextual Domains) Personal (P), Family (F), Social (Soc), School (Scl) and Community (Comm). Multivariate significance was determined using Wilks' criterion with alpha set at .05. Separate univariate analyses were performed for each of the dependent variables. To account for alpha inflation as a result of numerous tests, a Bonferroni correction ( $\alpha = .01$ ) was applied to each univariate analysis for the APSI and DAP.

## RESULTS

*Preliminary Analyses*

Internal consistency of the APSI and DAP in the C5 participant sample was assessed by Cronbach's alpha. Table 9 displays the Cronbach's alpha for the APSI factors as reported by Lounsbury et al. (2003) and as found in the present study. Table 10 displays the Cronbach's alpha for the DAP contexts as reported by the Search Institute (2005) and as found in the present study. Both measures appear to have appropriate levels of internal consistency in the C5 population.

Table 9

*Cronbach's Alpha for APSI*

	Lounsbury et al (2003)	Present Study (C5)
Agreeableness	.78	.77
Conscientiousness	.82	.67
Emotional Stability	.86	.85
Extraversion	.76	.61
Openness	.81	.69

*Note:* Cronbach's alpha for APSI scales published by Lounsbury et al., (2003) and Cronbach's alpha from C5 participants present study.

Table 10

*Cronbach's Alpha for DAP*

	Search Institute (2005)		Present Study (C5)
DAP-Personal	.87	.83	.63
DAP-Family	.91	.87	.89
DAP-Social	.90	.87	.61
DAP-School	.89	.87	.83
DAP-Community	.85	.85	.73

*Note:* Cronbach's alpha for DAP scales published by Search Institute (2005). Left column ( $n=1,301$ , 83.8% white, 22.7% non white) Right column ( $n=1,113$ , approximately 3.8% Asian, 57.7% Caucasian, 22.2% Hispanic, 4.2% were Native American, and 12.1% were Multi-Ethnicity). Cronbach's alpha from C5 participants in present study.

Table 11 displays the means and standard deviations of the APSI scales by year and Table 12 displays the means and standard deviations of the APSI Z-scores by year. A confirmatory factor analysis (CFA) incorporating a maximum likelihood estimation procedure was used to evaluate the APSI data. The Pearson product-moment correlation matrix with listwise deletion was used for the CFA. For the overall model evaluation, the root mean square error of approximation (RMSEA) was used. The RMSEA of .053 was at an acceptable level. Thus, the five-factor structure of the APSI was supported by the CFA (see Table 13). The scale correlations of the APSI in the C5 sample was similar to those reported by Lounsbury et al (2003) in their study of the intercorrelations of the subscales (see Table 14). Table 15 displays the correlations of the APSI factors in the C5 participants.

Table 11

*APSI Scale Score Means (SD) by Program Year*

	1	2	3	4	5
Agreeableness	3.83 (.52)	3.75 (.56)	3.73 (.56)	3.76 (.61)	3.89 (.50)
Conscientiousness	3.66 (.45)	3.62 (.50)	3.39 (.52)	3.52 (.52)	3.54 (.50)
Emotional Stability	3.37 (.73)	3.45 (.78)	3.42 (.83)	3.29 (.79)	3.27 (.90)
Extraversion	3.51 (.53)	3.58 (.60)	3.59 (.61)	3.56 (.48)	3.81 (.56)
Openness	3.77 (.43)	3.69 (.54)	3.69 (.55)	3.71 (.64)	3.79 (.50)

*Note:* Top row denotes year in the program (e.g. 1 = first years, 2 = second years, etc). The APSI scale ranges from 1 (Strongly Disagree) to 5 (Strongly Agree).

Table 12

*APSI Z-Score Means (SD) by Program Year*

	1	2	3	4	5
z-Agreeableness	1.17 (0.79)	0.96 (0.80)	1.14 (0.79)	1.11 (0.92)	1.20 (0.84)
z-Conscientiousness	0.69 (0.83)	0.80 (0.93)	0.50 (0.99)	0.66 (0.85)	0.76 (0.98)
z-Emotional Stability	0.52 (1.40)	0.85 (1.29)	0.85 (1.37)	0.64 (1.29)	0.47 (1.51)
z-Extraversion	-0.68 (0.97)	-0.70 (1.03)	-0.43 (0.91)	-0.80 (0.98)	-0.39 (1.10)
z-Openness	0.78 (0.81)	0.68 (1.11)	0.66 (0.87)	0.54 (1.00)	0.79 (1.00)

*Note:* Top row denotes year in the program (e.g. 1 = first years, 2 = second years, etc).

Table 13

*APSI Unstandardized Weights for Confirmatory Factor Analysis*

Item	Scale	Weight
ITEM 1	A	1.000
ITEM 2	A	1.323
ITEM 3	A	-1.711
ITEM 4	A	1.568
ITEM 5	A	-1.940
ITEM 6	A	-2.089
ITEM 7	A	0.783
ITEM 8	A	-1.674
ITEM 9	A	-1.762
ITEM 10	C	1.000
ITEM 11	C	0.988
ITEM 12	C	0.975
ITEM 13	C	1.276
ITEM 14	C	0.865
ITEM 15	C	0.658
ITEM 16	C	1.008
ITEM 17	C	-0.975
ITEM 18	C	0.780
ITEM 19	ES	1.000
ITEM 20	ES	1.291
ITEM 21	ES	1.090
ITEM 22	ES	1.110
ITEM 23	ES	0.979
ITEM 24	ES	1.236
ITEM 25	ES	1.168
ITEM 26	ES	-0.720

Table 13 (continued)

Item	Scale	Weight
ITEM 27	EX	1.000
ITEM 28	EX	-0.945
ITEM 29	EX	1.454
ITEM 30	EX	1.104
ITEM 31	EX	0.952
ITEM 32	EX	1.192
ITEM 33	EX	-1.059
ITEM 34	EX	0.744
ITEM 35	O	1.000
ITEM 36	O	0.879
ITEM 37	O	0.863
ITEM 38	O	0.880
ITEM 39	O	0.807
ITEM 40	O	0.794
ITEM 41	O	0.928
ITEM 42	O	0.810
ITEM 43	O	0.807

*Note: O = APSI Openness to Experience scale; C = APSI Conscientiousness scale; EX = APSI Extraversion scale; A = APSI Agreeableness scale; ES = APSI Ego Strength scale. APSI items were entered into AMOS to perform a confirmatory factor analysis. These reported values are the unstandardized weights of each item as they load onto individual scales.*

Table 14

*C5 and Lounsbury et al (2003) Correlations Among APSI Scales*

	Agreeableness	Conscientiousness	Emotional Stability	Extraversion	Openness to Experience
Agreeableness	---	.31	.33	.38	.36
Conscientiousness	.40	---	.11	.29	.33
Emotional Stability	.22	.18	---	.15	.09
Extraversion	.21	.19	.24	---	.43
Openness to Experience	.36	.30	.09	.44	---

*Note:* Values below the diagonal are from the present study. Values above the diagonal are from a study of intercorrelations performed by Lounsbury et al. (2003).

Table 15

*Correlation of APSI Factors in C5 Participants*

	Agreeableness	Conscientiousness	Emotional Stability	Extraversion	Openness to Experience
Agreeableness	1.00	---	---	---	---
Conscientiousness	0.56	1.00	---	---	---
Emotional Stability	-0.27	-0.19	1.00	---	---
Extraversion	0.20	0.13	-0.31	1.00	---
Openness to Experience	0.46	0.50	-0.17	0.45	1.00

*Note:* APSI items were entered into AMOS to perform a confirmatory factor analysis. These reported values represent the correlation of the factors, or the common variance from the items of the APSI in the C5 participants.

*Primary Analyses*

Results of the *t*-test of the *z*-scores are shown in Table 16. First-year participants had significantly higher scores than the age-based normed group in the APSI factors of conscientiousness, openness, agreeableness, emotional stability and the DAP contexts of social, community, family, school, and personal. Second-year participants had higher scores than the age-based normed group in the APSI factors of conscientiousness, openness, agreeableness, emotional stability and the DAP contexts of social, community, family, school, and personal. Third-year participants had higher scores than that age-based normed group in the APSI factors of conscientiousness, openness, agreeableness, emotional stability and the DAP contexts of social, school, and personal. Fourth-year participants had higher scores than the age-based normed group in the APSI factors of conscientiousness, openness, agreeableness, emotional stability and the DAP contexts of social, community, school, and personal. Fifth-year students had higher scores than the age-based normed group in the APSI factors of conscientiousness, openness, agreeableness and the DAP contexts of social, community, school, and personal. Results also revealed that all five C5 cohorts had significantly lower scores on the APSI factor of extraversion.

The MANOVA for the year in program was not significant with any of the APSI factors,  $F(20,1240) = 1.266$ ,  $p = 0.192$ . Wilks' lambda was 0.922, indicating that approximately 8% of the variance in the APSI scores can be accounted for by year in the program. Although the multivariate test was not significant, univariate tests were performed; the results did not reach statistical significance after Bonferroni correction ( $\alpha = .01$ ) was applied (see table 17).

Table 16

*Number, Means (M), Standard Deviation (SD), and t-test of the Z-scores of APSI scales and*

*DAP Contexts by Year in Program*

Year in Program		<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>
1st	<i>O</i>	102	0.78	0.81	9.73**
	<i>C</i>	102	0.69	0.83	8.35**
	<i>EX</i>	102	-0.68	0.97	-7.07**
	<i>A</i>	102	1.17	0.79	14.83**
	<i>ES</i>	102	0.52	10.40	3.77**
	<i>Personal</i>	102	0.46	0.71	6.48**
	<i>Family</i>	102	0.52	0.73	7.23**
	<i>Social</i>	102	0.36	0.89	4.1**
	<i>School</i>	102	0.46	0.81	5.71**
	<i>Community</i>	102	0.44	0.87	5.18**
2nd	<i>O</i>	70	0.68	10.11	5.15**
	<i>C</i>	70	0.80	0.93	7.21**
	<i>EX</i>	70	-0.70	10.03	-5.64**
	<i>A</i>	70	0.96	0.80	1.03**
	<i>ES</i>	70	0.85	10.29	5.52**
	<i>Personal</i>	70	0.54	0.74	6.08**
	<i>Family</i>	70	0.62	0.70	7.4**
	<i>Social</i>	70	0.61	0.58	8.81**
	<i>School</i>	70	0.62	0.63	8.35**
	<i>Community</i>	70	0.58	0.73	6.58**
3rd	<i>O</i>	63	0.66	0.87	6.06**
	<i>C</i>	63	0.50	0.99	4.02**
	<i>EX</i>	63	-0.43	0.91	-3.81**
	<i>A</i>	63	1.14	0.79	11.52**

Table 16 (continued)

Year in Program		<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>
4th	<i>ES</i>	63	0.85	1.37	4.91**
	<i>Personal</i>	62	0.35	0.83	3.28**
	<i>Family</i>	63	0.40	0.83	3.81**
	<i>Social</i>	63	0.23	0.91	1.99
	<i>School</i>	63	0.32	0.95	2.7**
	<i>Community</i>	63	0.20	0.92	1.72
	<i>O</i>	43	0.54	1.00	3.58**
	<i>C</i>	43	0.66	0.85	5.06**
	<i>EX</i>	43	-0.80	0.98	-5.35**
	<i>A</i>	43	1.11	0.92	7.86**
	<i>ES</i>	43	0.64	1.29	3.22**
	<i>Personal</i>	43	0.57	1.65	2.27*
	<i>Family</i>	42	0.64	1.48	2.8*
	<i>Social</i>	42	0.32	1.06	1.94
	<i>School</i>	42	0.80	0.76	6.85**
<i>Community</i>	42	0.64	0.95	4.39**	
5th	<i>O</i>	38	0.79	1.00	4.84**
	<i>C</i>	38	0.76	0.98	4.81**
	<i>EX</i>	38	-0.39	1.10	-2.19*
	<i>A</i>	38	1.20	0.84	8.78**
	<i>ES</i>	38	0.47	1.51	1.91
	<i>Personal</i>	38	0.72	1.65	2.70*
	<i>Family</i>	38	0.89	1.56	3.5**
	<i>Social</i>	38	0.25	1.05	1.46
	<i>School</i>	38	0.63	1.28	3.04**
	<i>Community</i>	38	0.54	0.93	3.57**

*Note: O = APSI Openness to Experience scale; C = APSI Conscientiousness scale; EX = APSI Extraversion scale; A = APSI Agreeableness scale; ES = APSI Ego Strength scale. Personal = DAP Personal Context domain; Family = DAP Family Context domain; Social = DAP Social Context domain; School = DAP School Context domain; Community = DAP Community Context domain. N.B. The *t*-tests are one sample tests. Participant means were compared to normative samples, Z-scores of 0. \*  $p < .01$ ; \*\*  $p < .001$*

The MANOVA for the year in program was not significant with any of the DAP contexts,  $F(20, 1232) = 1.418, p = 0.104$ . Wilks' lambda was 0.912, indicating that approximately 9% of the variance in the APSI and DAP scores can be accounted for by year in the program. Although the multivariate test was not significant, univariate tests were performed; the results did not reach statistical significance after Bonferroni correction ( $\alpha = .01$ ) was applied (see table 17).

A MANOVA for income level was not significant with the APSI factors  $F(15, 873) = 1.437, p = 0.123$ . Wilks' lambda was 0.929, indicating that approximately 7% of the variance in the APSI can be accounted for by income level. Although the multivariate tests were not significant, univariate tests were performed; none of these tests reached statistical significance after Bonferroni correction ( $\alpha = .01$ ) was applied.

A MANOVA including income level as an independent variable for income level was significant with the DAP contexts  $F(15,870) = 3.039, p < .001$ . Wilks' lambda was 0.856, indicating that approximately 14% of the variance in the DAP can be accounted for by income level. Univariate analyses revealed significant differences between DAP contexts of Family ( $F(3, 292) = 5.345, p = .001$ ) and Community ( $F(3, 292) = 6.587, p < .001$ ).

Post hoc analyses were not possible due to the low number of participants in the “Poverty” income group. Thus, the “Poverty” and “Low” income groups were merged into one group to stratify the sample into a total of three income groups, rather than four income groups. Multivariate and univariate analyses were repeated for the DAP with the new income groups. The MANOVA for income level was significant with the DAP contexts  $F(10, 578) = 3.906, p < .001$ . As before, ANOVAs for Family ( $F(2, 293) = 6.19, p = .002$ ) and Community ( $F(2, 293) = 8.61, p = .001$ ) contexts were significant. Post hoc analyses for the Family context revealed significant differences between the “Low” income group and the “Middle” and “High” income groups, with the latter groups having higher  $Z$  scores. Within the Community context, the “High” income group had significantly higher scores than the “Low” and “Middle” income groups.

Although there were no specific hypotheses with regard to gender or ethnicity effects, the possible influence of these variables was examined by including them as independent variables in a series of exploratory MANOVAs. No significant multivariate or univariate effects found for either gender or ethnicity.

One notable trend between the years in the program was the relatively lower scores of the third-year participants on all dependent variables, with the exception of extraversion, as compared to the other classes (see Figures 3-12). Third-years performed significantly lower on the DAP measure for community ( $F(1) = 6.28, p = 0.013$ ). Figures 3-12 display the mean  $z$ -scores of the APSI factors and DAP contexts for each year of the program.

Table 17

*Means and SD of APSI and DAP Z-scores by year. F value of between group differences.*

	1	2	3	4	5	<i>F</i>
Agreeableness	1.17 (0.79)	0.96 (0.80)	1.14 (0.79)	1.11 (0.92)	1.20 (0.84)	0.821
Conscientiousness	0.69 (0.83)	0.80 (0.93)	0.50 (0.99)	0.66 (0.85)	0.76 (0.98)	1.009
Emotional Stability	0.52 (1.40)	0.85 (1.29)	0.85 (1.37)	0.64 (1.29)	0.47 (1.51)	1.084
Extraversion	-0.68 (0.97)	-0.70 (1.03)	-0.43 (0.91)	-0.80 (0.98)	-0.39 (1.10)	1.599
Openness	0.78 (0.81)	0.68 (1.11)	0.66 (0.87)	0.54 (1.00)	0.79 (1.00)	0.570
DAP-Personal	0.46 (0.71)	0.54 (0.74)	0.35 (0.83)	0.57 (1.65)	0.72 (1.65)	1.003
DAP-Family	0.52 (0.73)	0.62 (0.70)	0.40 (0.83)	0.64 (1.48)	0.89 (1.56)	2.068
DAP-Social	0.36 (0.89)	0.61 (0.70)	0.23 (0.91)	0.32 (1.06)	0.25 (1.05)	1.698
DAP-School	0.46 (0.81)	0.62 (0.63)	0.32 (0.95)	0.80 (0.76)	0.63 (1.28)	2.158
DAP-Community	0.44 (0.87)	0.58 (0.73)	0.20 (0.92)	0.64 (0.95)	0.54 (0.93)	2.035

*Note:* Top row denotes year in the program (e.g. 1 = first years, 2 = second years, etc). Means (SD) of Z-scores of APSI and DAP. *F* values for between group differences.

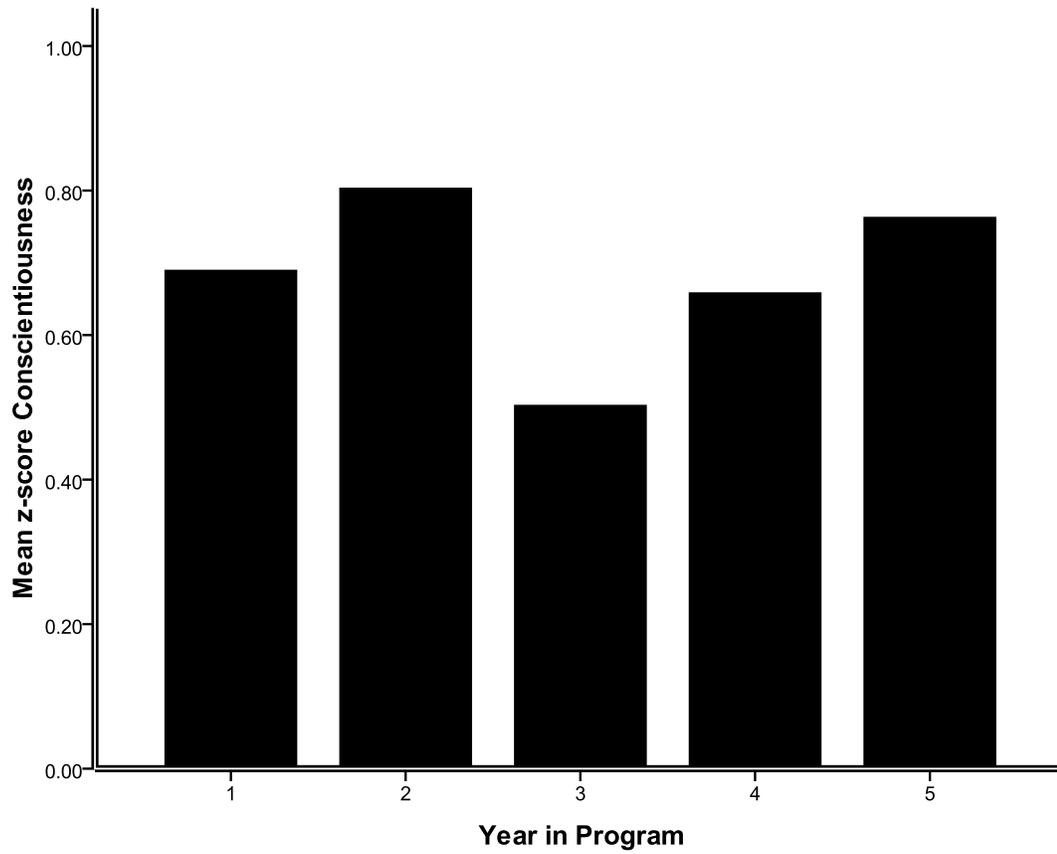


Figure 3. Mean Z-scores of Conscientiousness scale on APSI in all five years of the program.

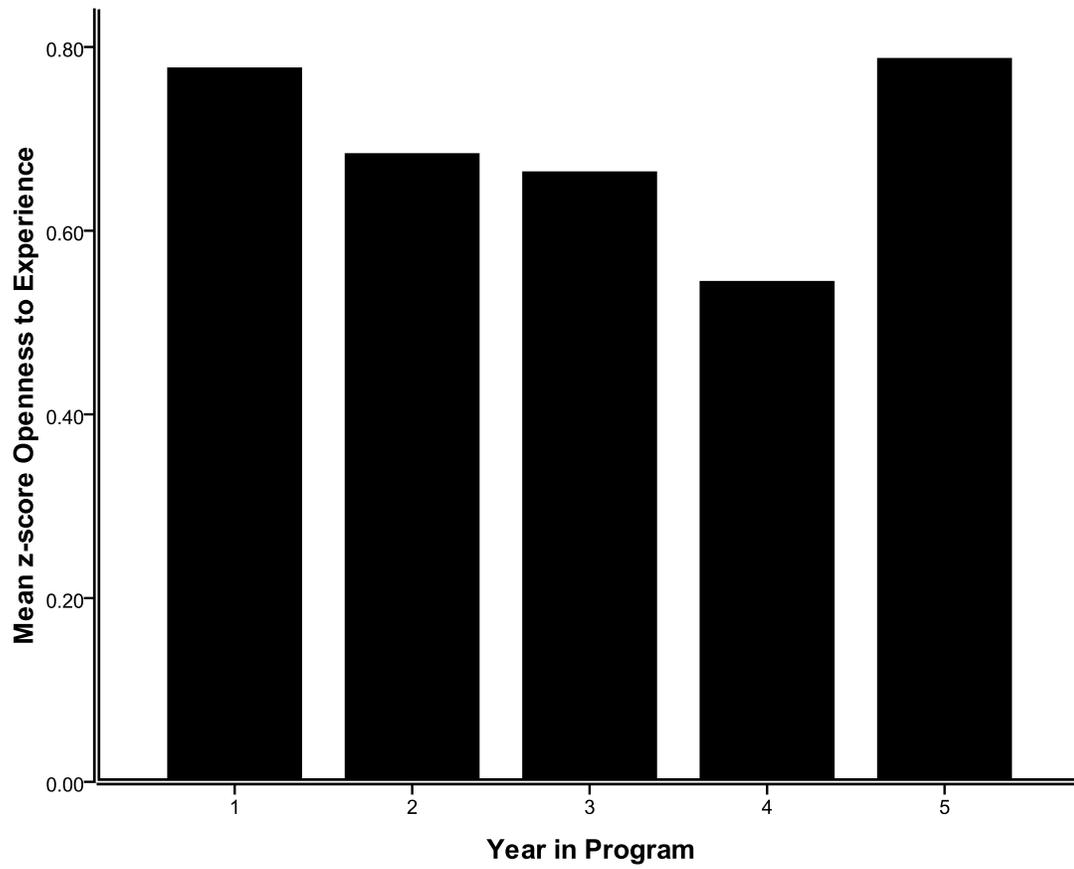


Figure 4. Mean Z-scores of Openness scale on APSI in all five years of the program.

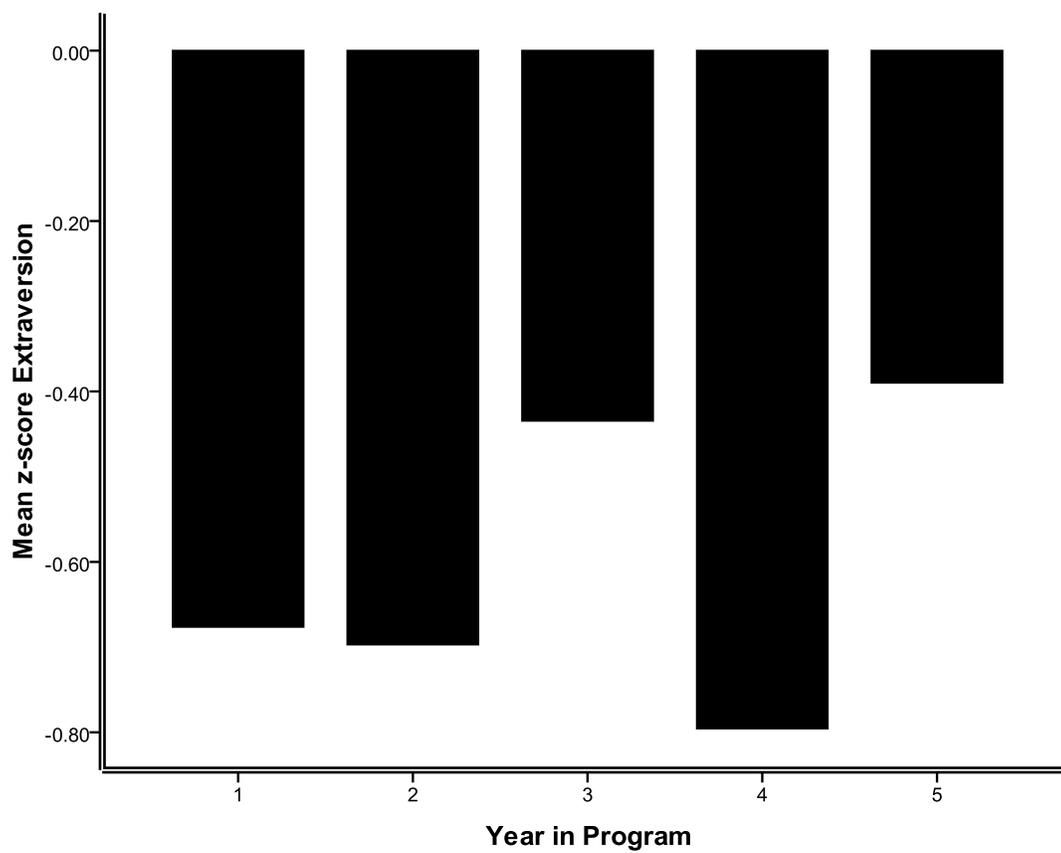


Figure 5. Mean Z-scores of Extraversion scale on APSI in all five years of the program.

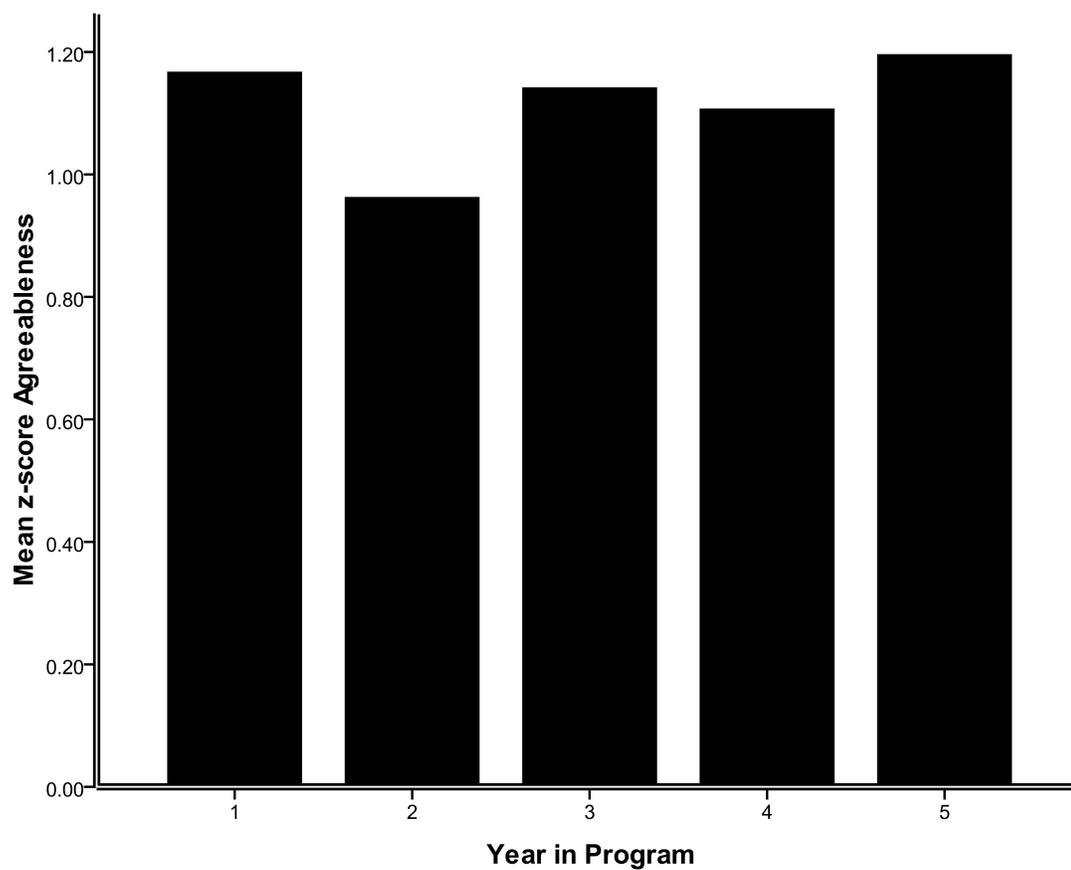


Figure 6. Mean Z-scores of Agreeableness scale on APSI in all five years of the program.

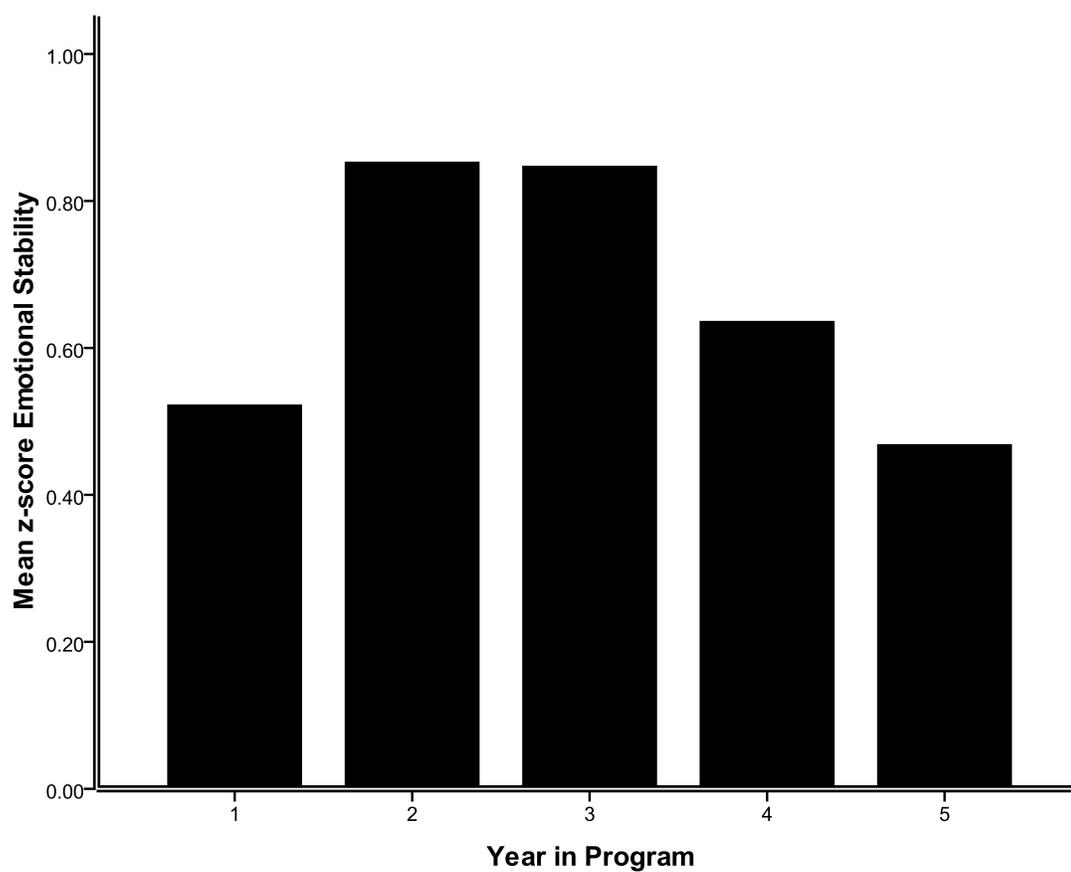


Figure 7. Mean Z-scores of Emotional Stability scale on APSI in all five years of the program.

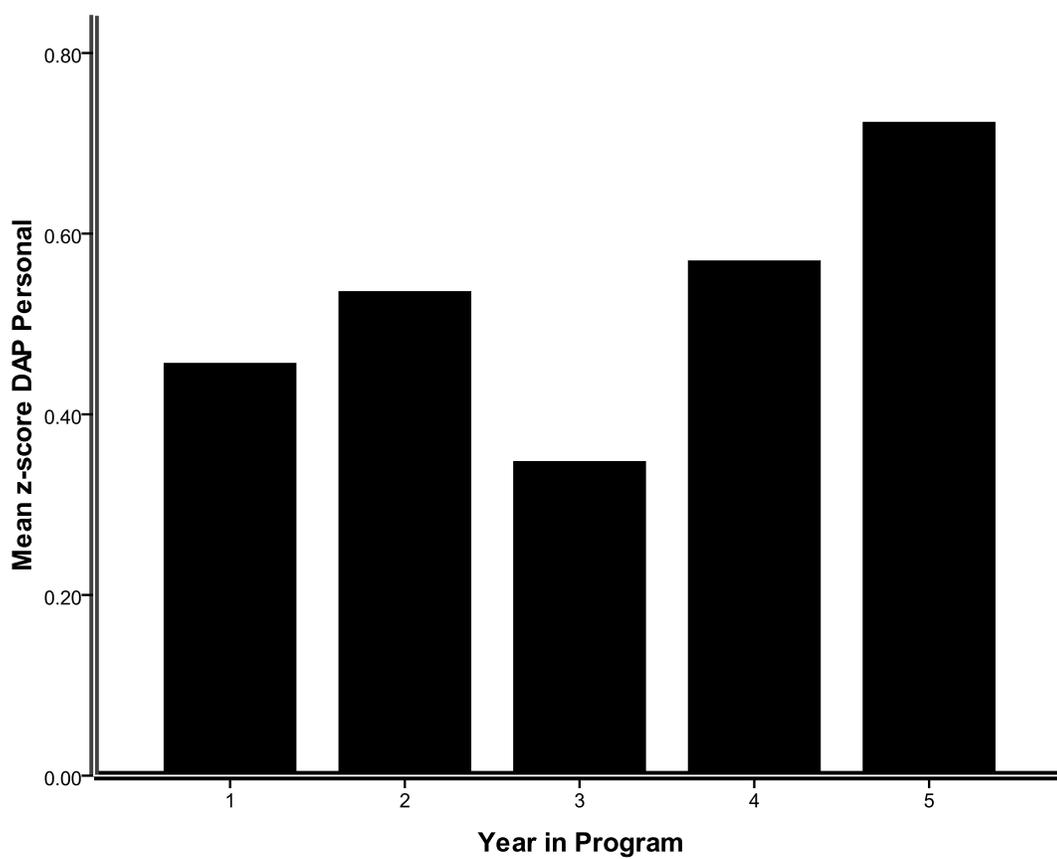


Figure 8. Mean Z-scores of DAP Personal context in all five years of the program.

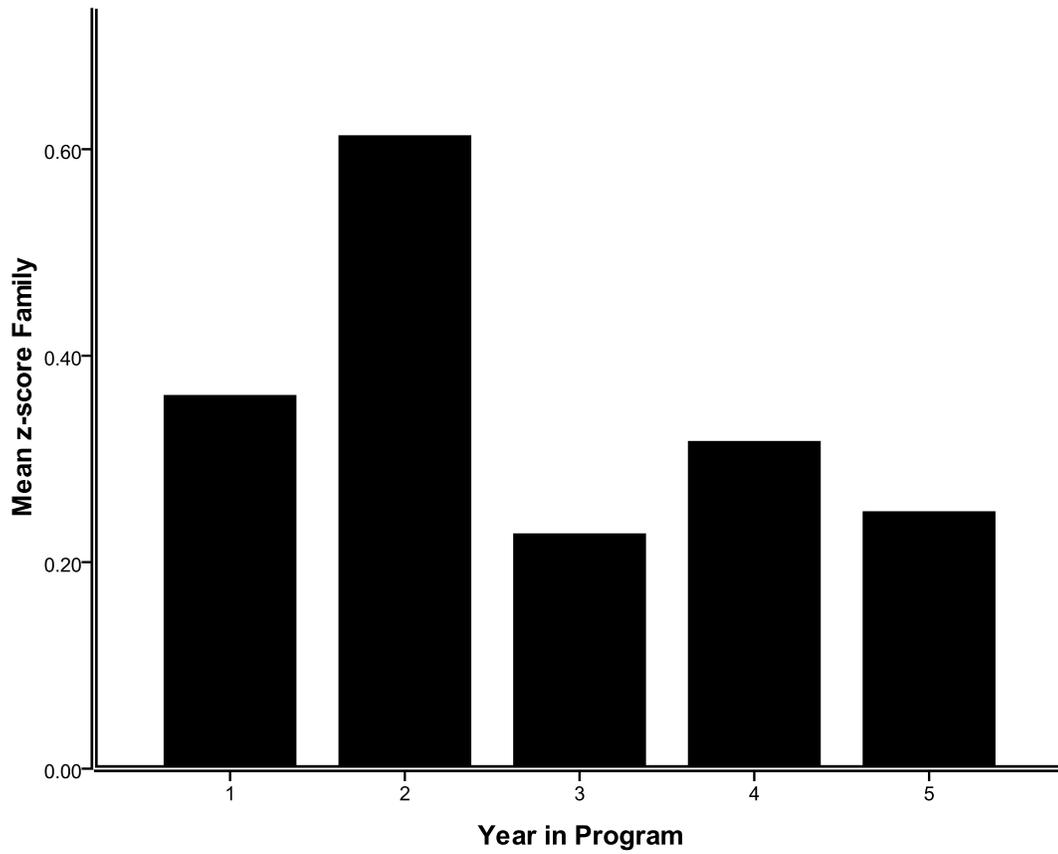


Figure 9. Mean Z-scores of DAP Family context in all five years of the program.

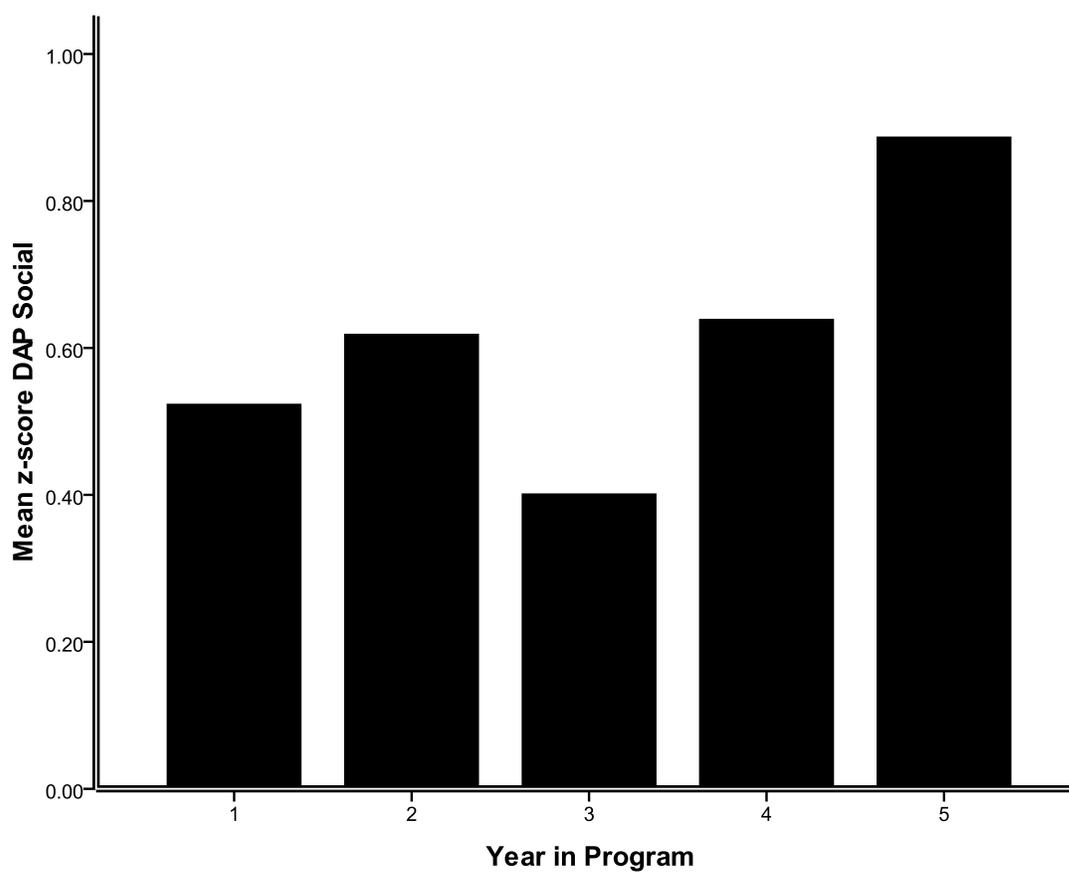


Figure 10. Mean Z-scores of DAP Social context in all five years of the program.

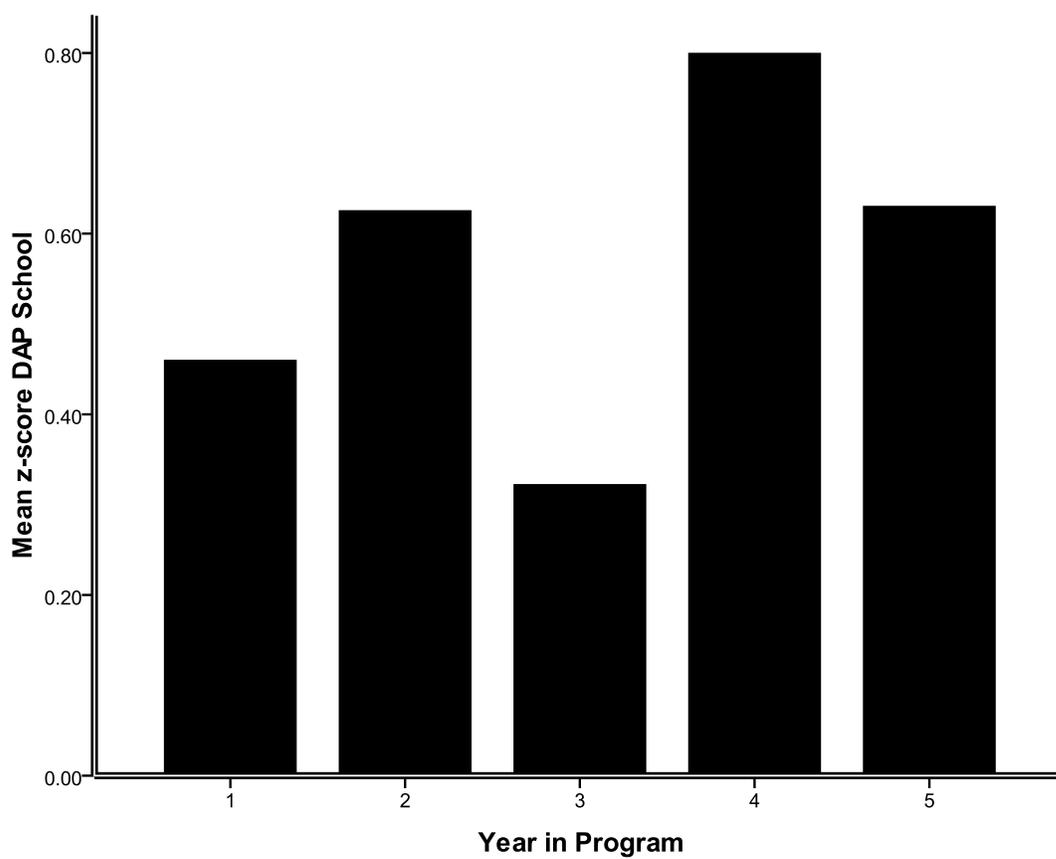


Figure 11. Mean Z-scores of DAP School context in all five years of the program.

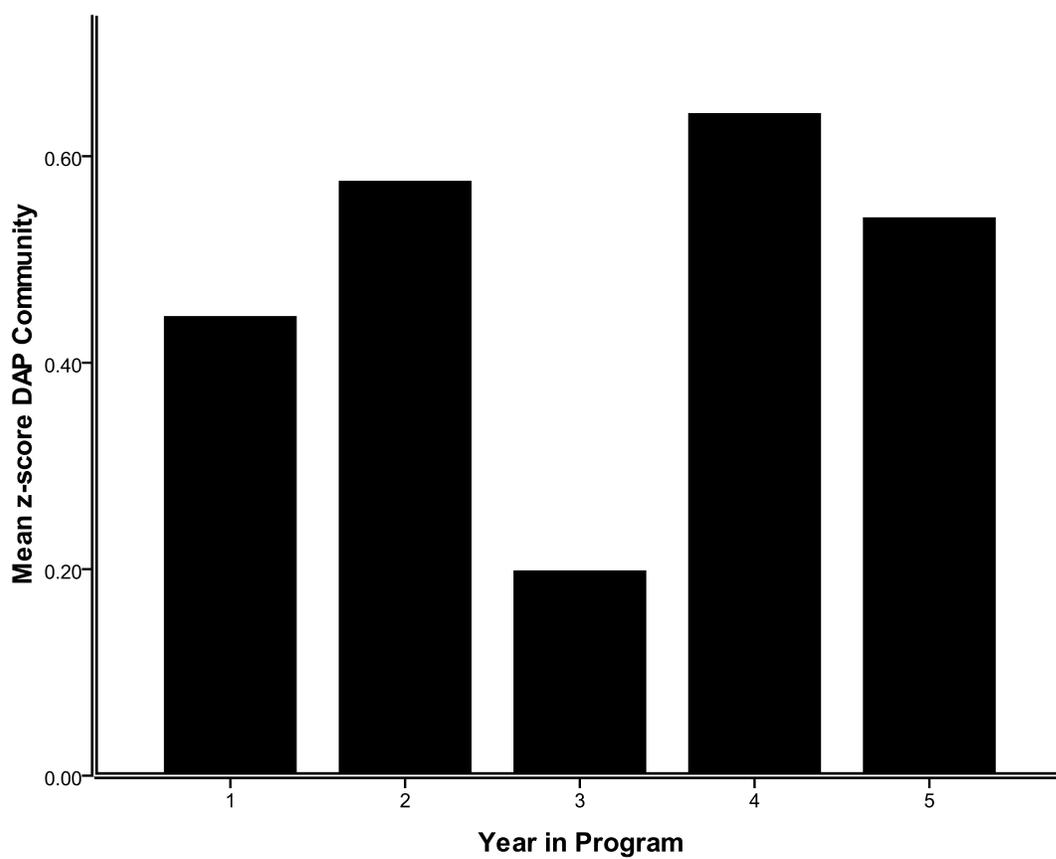


Figure 12. Mean Z-scores of DAP Community context in all five years of the program.

## DISCUSSION

The present study compared the APSI and DAP scores of C5 participants with age and gender based norms in order to provide a better understanding of the effects of C5 on personality development. Specifically, APSI and DAP scores were expected to have a relationship with the traits associated with the goals of the C5 program. It was anticipated that differences in between C5 participants and an age based normative sample would provide further support for community-based interventions to address negative trait development.

Consistent with the findings of Lounsbury et al. (2003) the five factors of the APSI were confirmed in the present study; thus, this confirmatory analysis provides evidence for the usefulness of the APSI with adolescents in the C5 program. Furthermore, Lounsbury et al. (2003) demonstrated the efficacy of the APSI in identifying traits that are commonly negatively associated with ‘at-risk’ groups (e.g. agreeableness, conscientiousness, extraversion, and openness) and those traits positively associated with ‘leadership’ groups (e.g. agreeableness, conscientiousness, and extraversion). These trends were utilized to further inform the hypotheses of the present study.

One hypothesis of the present study anticipated that C5 participants would display growth in the APSI traits of conscientiousness, openness to experience, extraversion, emotional stability, and agreeableness, when compared to the age and gender based norms. The second hypothesis of the present study was that C5 participants would demonstrate growth in DAP contexts of social, community, school, personal, and family, when compared to the age and gender based norms.

Results revealed that there was no significant growth relative to the age/gender based norms for the C5 participants in either the APSI traits or the DAP contexts. However, C5 participants (across all years of the program) demonstrated mean scores that were significantly higher than the age/gender based norms for APSI traits of conscientiousness, openness to experience, emotional stability, and agreeableness. As well, C5 participants displayed mean scores that were significantly higher than the age/gender based norms for DAP context of family, school, community, social, and personal. Overall, results of the present study did not provide support for either hypothesis that C5 would increase positive personality trait development.

Although the five-factors measured in the APSI are commonly known to be stable in adults, there is limited definitive research on the stability of these five traits in adolescents. Shiner and Caspi (2003) emphasized the evolving nature of personality, indicating that maturation and expression of behaviors throughout childhood and adolescence will result in changing personality structures throughout development. They also argue the importance of personality internalization, which is the recognition and integration of an individual's self-perception into their self-concept. Furthermore, the pattern of personality internalization is based on social expectations from infancy throughout middle childhood and into adolescence. Shiner and Caspi posit that changes in environment and social role expectancies can alter an individual's attitudes and personality style throughout adolescence. Thus, although adolescents may demonstrate stability in personality traits as a result of consistent environmental feedback, the impact of life changes and role transitions may be significant for personality development. This notion that personality can be fluid and flexible is consistent with the ideas of Scarr and McCartney (1983) and Bronfenbrenner (1994). Although this emphasis on environmental influence is notable for supporting for the use of interventions to disrupt maladaptive

development and to increase positive trait development, the present study encountered difficulty identifying the development of traits for C5 participants. Consistent with the Scarr and McCartney (1983) model, self-selection of the environment by the individual may play a considerable role in the current study. Consequently, the results of the present study may have been impacted by the traits of the participants who chose to apply and participate in the C5 program.

Several possible explanations should be considered in explaining the pattern of personality growth in C5 participants. First, although the broadest selection criterion for C5 is ‘at risk’ status (e.g. low SES, race, family composition, and prevalence of drugs and gangs in neighborhoods), the other requirements for selection from within this population are stringent and competitive. As a result, C5 participants are likely to be composed of individuals that possess above average levels of positive personality traits. The C5 program incorporates an intense and targeted selection process to find diverse youths among approximately 200 applicants that have been nominated by community partners in the city. Applications are considered from high-potential seventh grade students who convey a desire to succeed in school, maintain a B (+ or -) grade-point average, and who currently demonstrate some leadership skills. The rigorous application process requires an application with an essay related to leadership and two interviews. Therefore, their above average performance on the APSI traits of conscientiousness, agreeableness, openness, and emotional stability may be an artifact of the C5 selection criteria rather than the five years of C5 programming.

In addition, as the Lounsbury et al. (2003) study suggests, traits associated with leadership are positively correlated with significantly higher (as compared to regular students and ‘at risk’ students) on traits of agreeableness, conscientiousness, and extraversion on the

APSI. C5 participants are selected as extraordinary students with potential for leadership, therefore are likely to endorse higher levels of positive personality traits. The results of the present study indicate that first year C5 students scored significantly higher than expected for their age in the areas of all traits of the APSI (with the exception of extraversion) and the DAP. As the results suggest, C5 participants may be selected for the program as a result of their possession of these traits.

One significant result of the present study was the below average score across all five cohorts at each site in the APSI scale of extraversion. This consistent performance across cohorts may have several possible explanations. The items that were used to measure extraversion on APSI consisted of: "I spend a lot of time talking to other people"; "It is hard for me to make new friends"; "I am very outgoing and talkative" "I smile a lot when I am around other people;" "I find it easy to talk to strangers and people I don't know well;" "I have a lot of energy when I am around other people;" and "If I am in a group and no one says anything, I will say something first." These items reflect specific behaviors that are commonly accepted as features of extraversion, which Lounsbury et al. (2003) argued is highly correlated with traits of leadership. Based on the results of the present study, the C5 participants generally perform significantly lower than the age based norm group on this particular trait and higher than the age based norm group with all other traits Lounsbury et al. (2003) argued are associated with leadership. Given that the C5 selection criteria distinguish the participants as leaders, one explanation for this pattern may be a socially or culturally adaptive reason for not endorsing extraversion items on the APSI. Essentially, the extraverted traits may be maladaptive in the environments of the at-risk youths selected for the C5 program, and perhaps the more introverted traits have assisted the C5 participants in selecting environmental opportunities outside of the high-risk environment.

The goal of utilizing the DAP in the present study was to identify and assess the development of assets that serve as protective factors for youths. The Forty Developmental Assets, defined by the Search Institute (2007), focus on a strength-based approach that aims to identify the relationships, opportunities, abilities, and values that adolescents require for healthy development. The constructs of prevention and resiliency are the basis of the Developmental Assets. The prevention construct focuses on protective factors that decrease risk-taking behaviors. The resilience construct focuses on the adolescent's capacity to cope with and adapt to adverse life situations. These two major constructs address the underpinnings of the C5 program. The DAP, a measure of the Forty Developmental Assets, was used in the present study to create a better understanding of whether the C5 program is actually enhancing protective factors for adolescents.

Recent studies performed by the American Camping Association (ACA) also utilized the Forty Developmental Assets model to assess the impact of camp participation. These studies, *Directions* (ACA, 2005) and *Inspirations* (ACA, 2006), included approximately 15,000 children and adolescents in the United States. The results of these studies were significant for the development of traits such as positive identity, social skills, thinking and physical skills, spirituality, and positive values as a result of camp participation (ACA, 2005). Furthermore, according to campers, parents, and staff members surveyed, the campers reportedly became more confident, developed better social skills, became increasingly independent, demonstrated more leadership qualities, became more adventurous, and tried new experiences.

Studies performed by Kegler et al. (2005) and Scales, Benson, and Mannes (2006) also utilized the DAP to assess what types of community and social factors may improve perceived protective assets in at-risk youths. Kegler et al. (2005) found that there was a significant

association between what the parents and youths perceived to be level of neighborhood safety and their perceived assets of adult role models, peer role models and community involvement. Scales, Benson, and Mannes (2006) found that greater and qualitatively differing types of engagement with non-family adults was associated with greater community involvement of youths, higher levels of positive developmental processes of support, empowerment and boundary setting, higher levels of thriving and lower levels of risk behaviors. Thus, both studies utilized the DAP to study development of perceived assets and found that feelings of safety and high quality relationships with adults were the primary source of support for the youth, and found to be the strongest predictor of possessing high developmental assets.

Based on this recent literature for the development of protective factors for at-risk youths, the present study utilized the DAP to measure the assets of the C5 participants. The results of the present study demonstrated no significant growth in any of the five cohorts in any of the DAP contexts. However, the average performance in each context across all five years of the program was significantly higher than the age based norms. Based on the goals of the DAP, it is possible that participants were chosen to participate in the C5 program based in part on perceived assets in the different contexts. For example, the grade requirements for the C5 program are likely related to the higher School context scores. Also, the community involvement (e.g. City Year; Big Brothers, Big Sisters) that is often a precursor to being nominated for C5 may be related to the higher Community context scores. Thus, similar to the results of the APSI, their above average performance in the DAP contexts may be an artifact of the C5 selection criteria rather than the five years of C5 programming.

One interesting and notable pattern for the C5 participants in the results of the DAP is the relatively lower performance of third year class all contexts. The third year participants, on

average, were lower than all other classes in the social, personal, school, community, and family contexts. These results may suggest a cohort difference or some part of the third year programming that perhaps impacted the third year participants' perceived protective assets.

### *Limitations*

There are several limitations in the present study that may potentially impact the results. The general areas for potential limitations include: methodology, materials, control and comparison sample, and participant bias.

Limitations related to methodology issues of the present study include design, sampling, and data collection procedure. The first major limitation is that the cross-sectional design may not accurately represent the long-term effects of participation in the program. The cross-sectional design intrinsically has significant limitations in that it assumes stability between cohorts in terms of staff leadership and group experiences. The cross sectional design may be significantly impacted by cohort differences. Also, this may be a significant limitation for C5, as there have been recent organizational and structural changes, as well as staff changes, in the organization. These changes, along with the potential cohort differences in terms of group cohesion; staff leadership; and opportunities available in terms of community service, social awareness programming, and outdoor adventures may have impacted the results of the present study.

Another significant methodology limitation includes sampling of C5 participants. All C5 participants at the Texas and New England sites were given an opportunity to choose whether or not to participate. Those individuals who are likely to opt to participate in an optional activity that required concentration and attention may be a specific type of participant. For example, these individuals are highly likely to be conscientious, agreeable, and open to new experiences; thus, the results may be skewed due to this sampling issue. The final methodological issue that is

a limitation of the present study is data collection technique. Both Texas and New England C5 sites were given specific directions obtaining parental consent, participant assent, and administration of the study protocols to participants. However, there are limited means of control for the data collection process across both sites. In addition, camp activities scheduled prior to and after the data collection may be confounding factors in terms of attention, interest, and motivation for the protocol completion. Also, the environment while collecting the data is variable as there may have been differences in participants talking to one another and in levels of supervision from camp staff.

There are several limitations related to the materials used in the present study. First, all instruments were self-report, which relies on the ability to accurately assess oneself. Due to the high face validity of both the DAP and APSI, participants may be able to ‘fake good’ or ‘fake bad’ without any validity checks. In addition, although the normative sample for both the APSI and DAP somewhat accurately represented the national population, there was not a similar representation to the C5 participants in terms of ethnicity. Finally, the materials used in the present study did not directly measure the development of leadership, which is the ultimate goal of the C5 program. Thus, the criterion for the present study may not have been accurately assessed by the materials used.

The issue of maturation is also a limitation, although this was addressed by using age-based standardized normative scores to determine relative changes between years in the sample’s scores. Ideally, there would be an actual comparison sample that may be studied concurrently with the C5 participants. An ideal control group would be composed of adolescents from the same ages and SES background, and may include those individuals who were nominated but not selected for C5. Having a control group from a similar demographic background as C5

participants would increase the understanding of the impact of C5 on the trait development. For example, if the C5 group was compared to a control group, implications could be made about the disruption, development, or maintenance of the personality traits and assets related to participation/non participation in the program. Unfortunately, as noted in the camp literature from the American Camping Association (2005, 2006), creating a comparison group for even one summer can be difficult. Thus, creating a comparison group for a five-year program such as C5 was not possible for the purpose of the present study.

There are limitations in terms of participant expectations and bias as well. Many participants are accustomed to taking the YDSI surveys in the past, thus they may be apathetic with regard to the study, or tend to respond in a biased manner in either direction. Also in terms of the participant limitations, the issue of attrition may have impacted the results of the current study. It is possible that fifth-year participants may score higher on positively viewed traits simply because the stronger participants are the ones who remained in the program after five years.

### *Implications*

The results of the present study are that the mean scores of C5 participants are significantly higher scores for openness to experience, emotional stability, agreeableness and conscientiousness. There are many possible explanations for the lack of significant results. The current C5 program has existed at several of the sites for less than 10 years. Thus, application of the C5 principles may not be completely solidified or consistent from year to year. It is also possible that the fundamental principles of the C5 program may have limitations for application in different populations and groups, as well as among different types of at-risk youths. In addition, based on the demographic information collected (e.g. reported income and GPA) and

the general above average scores in the DAP and APSI across the five cohorts, it is also possible that the participant sample is not ‘at-risk’ as perceived. The stringency of the selection criteria for C5 may have limited the sample to the highest performing students from urban areas.

Since the results were not found in the predicted direction, the current study provides little support for the applicability and development of programs such as C5 in communities for at-risk youths. However, given how little is known about the impact of the C5 program, as well as other types of interventions, further research may be helpful in identifying effective strategies for positive development for at-risk youths. Another implication is that the C5 program may not be intensive enough for creating change in the personality traits and assets of the participants. A more grassroots approach may be beneficial for impacting the participants’ lives at school, home, and in their communities. Ultimately, the lack of findings in the present study suggests the need to continue to explore how leadership interventions may impact personality and other attributes of at-risk adolescents.

### *Future Directions*

The results of the present study suggest that the traits measured by the APSI and DAP did not develop or change significantly across the five years of the program. In the noted limitations, there are several methodological and measurement issues that may be addressed for further understanding and clarification about the impact of C5 on the participants.

Several methodological changes to the present study may be useful for future studies. One methodological change would be the use of a longitudinal design. Comparing the individual cohorts to themselves would demonstrate the actual growth and changes of the participants. This would address the limitations related to possible cohort differences that resulted from staff transitions and programming consistency. Another methodological change would be the use of

multiple observers (i.e. parents, camp staff, teachers) to assist in identifying traits that develop with participation. This would provide a greater range of data to evaluate possible change in personality traits.

There are also several measurement issues that should be addressed in future studies. There has been limited research on the APSI as a measure for personality development. There may be another theory and/or measure of personality traits that could more accurately address the traits relevant to C5. Also, the limited understanding of the DAP construction, despite being a well-known and published measure, was a significant limitation in collecting useful information about protective assets. The use of empirically-derived measures with less face-validity might decrease the probability of response bias.

Although the current study failed to find evidence of positive growth across C5 cohorts, the trend found in the results suggests that higher than average positive traits were maintained across the five cohorts. Based on these results, it is indubitably important to continue to explore the impact of intervention programs such as C5 on the lives and development of at-risk youths. A primary question to address in any future studies would be whether the C5 program was effective in helping high potential students maintain their assets/skills in the face of adversity in their environments over a five-year period of time. A more rigorous research design may identify additional specific traits of C5 participants and specific interventions of C5 programming that can effectively contribute to the success of the participants.

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## APPENDIX A: PARENTAL CONSENT LETTER

Dear Parent or Guardian:

I am a student in the Psychology Department at Indiana State University. I am conducting a research project on personality development while participating in C5. I request permission for your child to participate in a research study to be used for my doctoral dissertation.

The study consists of 3 brief questionnaires. The project will be explained in terms that your child can understand, and your child will participate only if he or she is willing to do so. Only I and members of the research staff, if any, will have access to information from your child. At the conclusion of the study, children's responses will be reported as group results only.

Participation in this study is voluntary. Your decision whether or not to allow your child to participate will not affect the services normally provided to your child by the C5 program. Your child's participation in this study will not lead to the loss of any benefits to which he or she is otherwise entitled. Even if you give your permission for your child to participate, your child is free to refuse to participate. If your child agrees to participate, he or she is free to end participation at any time. You and your child are not waiving any legal claims, rights, or remedies because of your child's participation in this research study.

Should you have any questions or desire further information, please call me at my cell phone (317) 289-3574 or email me at [aashia@gmail.com](mailto:aashia@gmail.com). My faculty supervisor, Dr. Kevin Bolinsky can be reached at (812) 237-2463 or by email at [bolinsky@indstate.edu](mailto:bolinsky@indstate.edu). Keep this letter after tearing off and completing the bottom portion and returning it with your other camp paperwork at the time of drop off.

If you have any questions about your rights as a research subject, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-8217, or e-mail the IRB at [irb@indstate.edu](mailto:irb@indstate.edu). You will be given the opportunity to discuss any questions about your rights as a research subject with a member of the IRB. The IRB is an independent committee composed of members of the University community, as well as lay members of the community not connected with ISU. The IRB has reviewed and approved this study.

Sincerely,

Aashia M. Bade, M.S.  
Graduate Clinician  
Indiana State University  
Terre Haute, IN

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Please indicate whether or not you wish to allow your child to participate in this project by checking one of the statements below, signing your name and return with other camp paperwork. Sign both copies and keep one for your records.

\_\_\_\_\_ I grant permission for my child to participate in Aashia M. Bade's study on personality.

\_\_\_\_\_ I do not grant permission for my child to participate in Aashia M. Bade's study on personality.

\_\_\_\_\_  
Signature of Parent/Guardian

\_\_\_\_\_  
Printed Parent/Guardian Name

\_\_\_\_\_  
Printed Name of Child

\_\_\_\_\_  
Date

APPENDIX B: PARTICIPANT ASSENT FORM

**ASSENT TO PARTICIPATE IN RESEARCH**

Impact of leadership program on personality characteristics of at-risk youths

1. My name is Aashia Bade. I am a graduate student from Indiana State University; my faculty supervisor is Kevin Bolinsky, Ph.D.
2. We are asking you to take part in a research study because we are trying to learn more about how participation in a leadership program such as C5 can affect personality traits and developmental assets.
3. If you agree to be in this study, you will be asked to complete three questionnaires relating to yourself and your life.
4. There are no known risks to participating in this research study.
5. One major benefit of this study includes increased understanding and possible improvement of the C5 program to better serve your needs.
6. Your parents have given their permission for you to take part in this study. Even though your parents said “yes,” you can still decide not to do this.
7. If you don’t want to be in this study, you don’t have to participate. Remember, being in this study is up to you and no one will be upset if you don’t want to participate or even if you change your mind later and want to stop.
8. You can ask any questions that you have about the study. If you have a question later that you didn’t think of now, you can call me at 812-237-2463 or ask an administrator at C5 to get in touch with me.
9. Signing your name at the bottom means that you agree to be in this study. You and your parents will be given a copy of this form after you have signed it.

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Printed Name of Participant

\_\_\_\_\_  
Date

## APPENDIX C: ADOLESCENT PERSONAL STYLE INVENTORY



**RESOURCE ASSOCIATES ADOLESCENT  
PERSONAL STYLE INVENTORY**

As you read each of the following sentences, think about how you act or feel most of the time. Think about whether you agree or disagree with each sentence. Next to each sentence, there are five numbers that measure how much you agree with the sentence. For each sentence, decide which of the 5 numbers best describes how much you agree with the sentence. Circle that number.

For example, if you agree with the sentence, you might want to circle the number 4 or 5, depending on whether you agree or strongly agree with the sentence. If you disagree with the sentence, you might want to circle the number 1 or 2, depending on whether you strongly disagree or disagree with the sentence. If you are unsure about whether you agree or disagree, or if you feel in-between about the sentence, you might want to circle the number 3. You can use a pencil or pen to mark your answers. If you change your mind about an answer, make sure you erase your old answer completely. Then mark your new answer clearly.

**Here are three examples:**

**EXAMPLE 1:**

I will do anything I can to make sure a college project gets done on time. 1 2 3 4 ⑤  
In this example, the person circled number 5. This means that the person strongly agrees with the sentence. The person thinks it is important to turn in work on time.

**EXAMPLE 2:**

When I am working on a problem, I hate it when a person tries to talk to me. 1 ② 3 4 5  
In this example, the person circled number 2. This means that the person disagrees with the sentence. The person does not mind when someone talks to him or her while he or she is working on a problem.

There are no right or wrong answers to the questions. Please answer each of the questions from your point of view. Do not answer the questions like you think others would expect you to answer. BE HONEST in how you answer the questions.

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>In-Between</b>	<b>Agree</b>	<b>Strongly Agree</b>
1. I try to get along with other people, even if I don't agree with them.					
2. I try to be nice and polite in every situation					
3. I sometimes say things just to make other people mad.					
4. I am always polite to other people.					
5. I sometimes make fun of other kids in school.					
6. If anybody says something mean to me, I say something mean right					
7. I have a reputation for being helpful to other people.					
8. I sometimes trick other people into doing what I want them to do.					
9. Sometimes I say things on purpose to hurt other people's feelings.					
10. I am always very careful when I am doing school work.					
11. I always finish everything I start.					
12. I am never late for any meeting or appointment.					
13. I try to be very neat and organized in my homework and class assignments.					
14. My teachers can always count on me to do what they ask me to do in class.					
15. I always keep every single promise I make.					
16. I like to keep everything I own in its proper place.					
17. It is hard for me to keep my bedroom neat and clean.					
18. I always clean up after I have made a mess.					
19. My mood goes up and down more than most people.					
20. Sometimes I don't feel like I'm worth much.					
21. I often feel tense or stressed out.					
22. I sometimes feel like everything I do is wrong or turns out bad.					

23. I feel like I can't handle everything that is going on in my life.					
24. I sometimes feel like I'm going crazy.					
25. I sometimes feel sad or blue.					
26. I feel good about myself most of the time.					
27. I spend a lot of time talking to other people.					
28. It is hard for me to make new friends.					
29. I am very outgoing and talkative.					
30. I smile a lot when I am around other people.					
31. I find it easy to talk to strangers and people I don't know well.					
32. I have a lot of energy when I am around other people.					
33. I am a fairly quiet person in most group settings.					
34. If I am in a group and no one says anything, I will say something first.					
35. I like to find out about new things that interest me, even though they are not required for any class.					
36. I like to try new ways of doing things..					
37. I would like to keep learning new things for years to come.					
38. I like to read books on different subjects.					
39. I would like to learn how to read and speak a foreign language.					
40. I would like a job someday that involved continued learning and education to be successful.					
41. I find it fun to learn and develop new hobbies.					
42. I like to find out how people live in other places in the world.					
43. My friends would say I have a lot of curiosity about things in general.					

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## APPENDIX D: DEVELOPMENTAL ASSETS PROFILE (DAP)

## DEVELOPMENTAL ASSETS PROFILE

**INSTRUCTIONS:** Below is a list of positive things that you might have in *yourself, your family, friends, neighborhood, school, and community*. For each item that describes you **now or within the past 3 months**, check if the item is true:

Not At All or Rarely; Somewhat or Sometimes; Very or Often; Extremely or Almost Always

If you do not want to answer an item, leave it blank. But please try to answer all items as best you can.

Not At All or Rarely	Somewhat or Sometimes	Very or Often	Extremely or Almost Always	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>I . . .</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Stand up for what I believe in.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Feel in control of my life and future.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Feel good about myself.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Avoid things that are dangerous or unhealthy.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Enjoy reading or being read to.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Build friendships with other people.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Care about school.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. Do my homework.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. Stay away from tobacco, alcohol, and other drugs.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. Enjoy learning.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11. Express my feelings in proper ways.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12. Feel good about my future.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13. Seek advice from my parents.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14. Deal with frustration in positive ways.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15. Overcome challenges in positive ways.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. Think it is important to help other people.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17. Feel safe and secure at home.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18. Plan ahead and make good choices.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19. Resist bad influences.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20. Resolve conflicts without anyone getting hurt.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21. Feel valued and appreciated by others.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22. Take responsibility for what I do.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23. Tell the truth even when it is not easy.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24. Accept people who are different from me.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25. Feel safe at school.

PLEASE TURN OVER AND COMPLETE THE BACK.

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Note: The term "Parent(s)" means 1 or more adults who are responsible for raising you.

Not At All    Somewhat    Very    Extremely  
or    or    or    or  
Rarely    Sometimes    Often    Almost Always

- |                          |                          |                          |                          |   |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 26. Actively engaged in learning new things.                    |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 27. Developing a sense of purpose in my life.                   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 28. Encouraged to try things that might be good for me.         |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 29. Included in family tasks and decisions.                     |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 30. Helping to make my community a better place.                |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 31. Involved in a religious group or activity.                  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 32. Developing good health habits.                              |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 33. Encouraged to help others.                                  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 34. Involved in a sport, club, or other group.                  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 35. Trying to help solve social problems.                       |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 36. Given useful roles and responsibilities.                    |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 37. Developing respect for other people.                        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 38. Eager to do well in school and other activities.            |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 39. Sensitive to the needs and feelings of others.              |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 40. Involved in creative things such as music, theater, or art. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 41. Serving others in my community.                             |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 42. Spending quality time at home with my parent(s).            |
|                          |                          |                          |                          | <b>I HAVE . . .</b>   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 43. Friends who set good examples for me.                       |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 44. A school that gives students clear rules.                   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 45. Adults who are good role models for me.                     |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 46. A safe neighborhood.  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 47. Parent(s) who try to help me succeed.                       |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 48. Good neighbors who care about me.                           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 49. A school that cares about kids and encourages them.         |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 50. Teachers who urge me to develop and achieve.                |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 51. Support from adults other than my parents.                  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 52. A family that provides me with clear rules.                 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 53. Parent(s) who urge me to do well in school.                 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 54. A family that gives me love and support.                    |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 55. Neighbors who help watch out for me.                        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 56. Parent(s) who are good at talking with me about things.     |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 57. A school that enforces rules fairly.                        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 58. A family that knows where I am and what I am doing.         |

**THANK YOU FOR COMPLETING THIS FORM.**

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## APPENDIX E: DEMOGRAPHICS QUESTIONNAIRE

1. Your Age: \_\_\_\_\_
2. Your Year in the Program: \_\_\_\_\_
2. Your Gender: Female \_\_\_\_\_ Male \_\_\_\_\_
3. Your Ethnicity: (Please circle all that apply)
 

a. American Indian/Alaskan Native	e. White/Caucasian
b. Asian/Asian American	f. Hispanic/ Latino
c. Native Hawaiian or other Pacific Islander	g. Other _____
d. Black/ African American	
4. Grade you just completed in school (Please circle one)
 

a. 7th	d. Sophomore
b. 8th	e. Junior
c. Freshman	f. Senior
5. Your religion: \_\_\_\_\_
6. Have you ever been in foster care? No \_\_\_\_\_ Yes \_\_\_\_\_
 

6a. If yes, list the length of time in foster care and your age at the time.

\_\_\_\_\_

\_\_\_\_\_
7. Are you an adopted child? No \_\_\_\_\_ Yes \_\_\_\_\_
8. Who do you currently live with most of the time? (please circle all that apply and include number)
 

Mother	Step-Mother	Grandmother
Father	Step-Father	Grandfather
Brother (# _____)	Girlfriend of parent	Cousin (# _____)
Sister (# _____)	Boyfriend of parent	Uncle
Foster Mother	Foster Brother (# _____)	Aunt
Foster Father	Foster Sister (# _____)	

9. Mother's education:

- |                          |  |
|--------------------------|--|
| a. Less than high school | e. Bachelor's degree                               |
| b. High school           | f. Some graduate school                            |
| c. GED                   | g. Graduate degree (Master's, Ph.D., Psy.D, Ed.D.) |
| d. Some college          | h. Professional degree (J.D., M.D.)                |

10. Father's education:

- |                          |  |
|--------------------------|--|
| a. Less than high school | e. Bachelor's degree                               |
| b. High school           | f. Some graduate school                            |
| c. GED                   | g. Graduate degree (Master's, Ph.D., Psy.D, Ed.D.) |
| d. Some college          | h. Professional degree (J.D., M.D.)                |

11. Parents' annual income (mother and father combined):

- |                         |                         |
|-------------------------|-------------------------|
| a. Less than \$15,000   | e. \$46,000 to \$55,000 |
| b. \$16,000 to \$25,000 | f. \$56,000 to \$65,000 |
| c. \$26,000 to \$35,000 | g. \$66,000 to \$75,000 |
| d. \$36,000 to \$45,000 | h. More than \$76,000   |
|                         | i. Do not know          |

12. What type of school do you attend?

- Public
- Private- religious
- Private-non-religious
- Charter
- Home school

13. What types of extracurricular activities did you participate in the last year? (please circle all that apply and write number of each)

- Sports (# \_\_\_\_\_)
- Music group (# \_\_\_\_\_)
- Drama/Theater (# \_\_\_\_\_)
- Community Service (# \_\_\_\_\_)
- Honor Society (# \_\_\_\_\_)
- Other \_\_\_\_\_ (# \_\_\_\_\_)

14. Circle any disciplinary action you may have had in the past year (and number)

- Detentions (# \_\_\_\_\_)
- In house suspensions (# \_\_\_\_\_)
- At home suspensions (# \_\_\_\_\_)
- Expulsion (# \_\_\_\_\_)

15. What is your GPA from the past two semesters on a 4.0 scale

Fall: \_\_\_\_\_/4.0                      Spring: \_\_\_\_\_/4.0