

ABSTRACT

AN EXAMINATION OF ATTACHMENT IN AFTERSCHOOL PROGRAMS

by

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While children and adolescents typically spend from six to seven hours a day in formal school settings, they are often faced with a glut of free time. Estimates put between 40-50% of a child's waking hours spent in what is described as discretionary time. Advocates of afterschool programs (ASPs) identify the non-school hours as an important time to make an impact on youth vulnerable to risks related to delinquency and school failure. ASPs are places where young people can develop attachments to positive adult role models and prosocial peers. These programs are designed to reinforce educational goals, while promoting opportunities for positive development through structured recreation and enrichment opportunities. Considering the salience of attachment for healthy development of youth, it is important to understand how the features of youth programs associate with the bonds between youth and prosocial adults who oversee these programs. Several studies have identified specific supports for competence and autonomy, and these align well with attachment's roots in the presence of a supportive environment. The purpose of this study was to examine the relationships between the provision of staff supports for autonomy and competence with the attachment that youth report toward ASPs, and how staff supports and attachment to

ASPs associate with school attachment. The study acquired data from three 21st Century Community Learning Centers in eastern North Carolina. Data were collected from 171 youth program participants in grades 2-12 using electronic questionnaires. Supports for autonomy and competence were measured using adaptations of scales developed to study self-determination theory. School attachment was measured through a scale developed by Resnick et al. (1997). Logistic regression tests were used to test study hypotheses. Results supported both hypotheses as supports for competence and autonomy were associated with afterschool attachment, and afterschool attachment was positively related to overall school attachment. Autonomy and competence work to support long-term engagement in programs by appealing to affective components to enhance relatedness.

AN EXAMINATION OF ATTACHMENT IN AFTERSCHOOL PROGRAMS

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Introduction

Typically, children and adolescents spend from six to seven hours a day in formal school settings (Larson & Seepersad, 2003). However, there are many hours of the day not obligated to school or education. Estimates put between 40-50% of a child's waking hours spent in what Larson and Seepersad deem discretionary time. This includes participating in recreation and afterschool programs (ASPs), using media, and 'hanging out' with friends in unstructured settings. Youth are particularly vulnerable to risks related to delinquency and school failure during non-school hours (Carnegie Council on Adolescent Development, 1992; Larson, 2000).

ASPs connect young people to positive adult role models and prosocial peers (Larson, 2000; Mahoney, Larson, & Eccles, 2005), reinforce educational goals, and promote opportunities for positive development through structured recreation and enrichment opportunities (Larson, 1994). The success of these programs often depends on young people bonding with adult leaders, who they perceive to have their best interests at heart.

To understand the influence of adults and institutions on youth behavior, it is important to understand attachment. According to Social Control Theory, when people lack strong bonds to other people they are more likely to be deviant (Hirschi, 1969). Conversely, individuals who have strong bonds to the others within society will be less likely to commit crimes. Attachment thrives when the correct mixture of positive influences is in place, giving children and adolescents opportunities to flourish and succeed (Hirschi, 1969). Young people develop positively while at the same time avoid negative outcomes.

Originally developed to explain the bond between children and parents, attachment has been applied to other situations where youth come into contact with adults and has been alternatively referred to as connectedness (Blum, Libbey, Bishop, & Bishop, 2004; Nelson,

Nelson, & Campbell, 2005). Attachment to others helps young people maintain stability in their lives, which in turn, allows them to curtail their behavior in a way that corresponds with moral standards (Hirschi, 1969). The influence of attachment has special implications for afterschool care and recreation programs. Specifically, along with positive role models such as parents, other adults, and prosocial peers, professionals in youth-serving programs should seek to instill attachment to these entities, as these offer an important asset to fostering positive youth development (Fraser-Thomas, Côté, & Deakin, 2005).

Attachment requires the development of an affective bond between people where needs for physical and psychological safety are fulfilled. To enhance this affective bond in children, programs should provide opportunities for autonomy, provide structure, support competence, and facilitate relatedness and opportunities to belong (Nelson, Nelson, & Campbell, 2005; Witt & Caldwell, 2005). Nelson et al. recommend that schools foster learning climates that balance these supports to develop strong bonds between teacher and student and allow for opportunities to feel competent and safe. Youth who are attached to institutions have models for prosocial behavior, and a bond to an institution that promotes prosocial behavior and acts as a buffer to delinquency and risk (Hirschi, 1969).

Recently, ASPs have realized the importance of attachment and have moved away from deficit-based models that seek to control behavior, while preventing risk (Witt & Caldwell, 2005). Primary to this orientation is that being problem free is not enough to ensure successful development (Pittman, Irby, Tolman, Yohalem, & Ferber, 2003). Successful development is marked by young adults who are problem free, fully prepared to handle the challenges of life, and engaged as citizens in communities (Pittman et al., 2003). Specific principles guide adult leaders to ensure that youth are problem free, fully prepared, and fully engaged. In the case of

ASPs, attachment or connectedness to these programs is linked with attachment to schools, and eventually, improved academic performance (Watts, Witt, & King, 2008).

A common theme of the attachment literature is that youth develop authentic relationships with adults. The development of authentic relationships mirrors the characteristics of the basic need, relatedness, in self-determination theory. Relatedness is defined as the “need to feel belongingness and connectedness to others” (Ryan & Deci, 2000, p.73). Relatedness is considered instrumental to internalized or internally regulated behavior. Grolnick, Deci, and Ryan (1997) noted that relatedness and autonomy provision were closely tied. Parents often structure children’s environments and these structures can be controlling, and negatively received by children. When an environment is controlling it detracts from autonomy, whereas environments highlighted by empathy and reasoning are autonomy supportive (Grolnick et al., 1997). The provision of an autonomous environment is linked to relatedness and over time can lead to greater trust and connection to adult leaders (Watts & Caldwell, 2008). Expanding on this idea, Ellis and Caldwell (2005) advocate implementing activities that allow for *voice and choice* within afterschool and recreation programs, as these supports for autonomy promote agency and lead to greater engagement in these programs.

In support of self-determination theory, several scholars (e.g., Caldwell & Baldwin, 2003; Gillard, Watts, & Witt, 2009; Ramsing & Sibthorp, 2008; Sibthorp, Paisley, & Hill, 2003) have identified the basic psychological needs of autonomy and competence as important features of youth development programs. The attachment literature supports the need for autonomy and competence, and the presence or absence of these supports may explain why youth feel connected to a program. The opportunity to experience autonomy in youth programs is critical in helping young people develop an internal locus of control (Ellis & Caldwell, 2005; Ryan & Deci,

2000). Support of competence allows youth to attribute their successes to their actions, and is reinforced and monitored by staff to ensure success and safety (Gillard et al., 2009). Measuring these features provides a basic understanding of the developmental environment in which children and adolescents are immersed (Gillard et al., 2009; Ramsing & Sibthorp, 2008). This is also congruent with self-determination theory, which suggests that supports for the basic psychological needs of relatedness, competence, and autonomy lead to long-term, internalized participation in programs (Larson, 2000; Ryan & Deci, 2000). Extending this further, Watts and Caldwell (2008) make clear that the way to support attachment or connectedness to youth programs is to offer an environment where youth feel safe (physically and psychologically) and supported in their choices.

Objectives of the Study

Considering the importance of attachment for healthy development of youth, it is important to identify the features of youth programs that support the establishment of bonds between youth and prosocial peers and adults. Several studies have identified specific supports for competence and autonomy, and these align well with those elements within the environment that support attachment. The purpose of this study was to examine the relationships between the provision of staff supports and the attachment that youth report toward ASPs, and how staff supports and attachment to ASPs associate with school attachment. This study attempts to bridge the attachment literature to the self-determination theory literature through tests of the following hypotheses:

H1: Supports for autonomy and competence will be positively associated with attachment to the afterschool program.

H2: Attachment to the afterschool program will be positively associated with school attachment.

Background

Attachment, Connectedness and Afterschool Programs

The use of ASPs continues to gain interest because of the benefits they seem to provide to youth. Moore, Morretti, and Holland (1997) explained that attachment presents a possible method to transform ASPs from a source of control to connection. The problem lies in the fact that traditional strategies (e.g., intrusive and coercive control) do not present much value with regards to youth who have an existent internal working model of adults as “rejecting, punitive and untrustworthy” (Moore et al., 1997, p. 2). Troubled youth in particular need to feel appreciated and safe before they realize that they need or want to change (Moore et al., 1997).

ASPs are attractive to those wishing to promote youth development because these programs reach outcomes that go beyond simply fun and games (Watts, Witt, & King, 2008). Watts et al. examined the relationships among assessed program inputs, outputs (program attendance), and outcomes for a large school-based, after-school program to understand how the specific attributes of programs are linked to desirable outcomes. Historically, the effectiveness of ASPs typically is conceived by examining the relationship between attendance rates and outcomes (Watts et al., 2008). Attendance is typically measured as a dichotomous yes/no, number of days attended, or number and types of activities attended (Watts et al., 2008). However, attendance alone cannot explain what occurs in these programs. Watts et al. suggested that the major roles of ASPs are to provide satisfying experiences, support academic competence, and connect youth to adult leaders. Offering these supports within programs offers these youth the opportunity to feel connected to ASPs and, eventually, school.

Program satisfaction is attributed to the presence of certain program characteristics. Individuals strive to maintain a strict balance of connectedness along with the right amount of

separation. In turn, the balance helps them feel secure in their everyday interactions with individuals who hold the ability to influence them in different ways (Moore et al., 1997). Watts et al. (2008) suggest that children mature and perform very well while under the supervision of caring and supportive adults and peers. In addition, they depend on ASPs, which provide optimal opportunities for children and adults to connect. These dynamics are a part of an ongoing process of evaluating relative safety and risks while maintaining balance (Moore et al., 1997). The attachment bond is ultimately activated when there is a perceived threat of abandonment because it is then that stress levels are elevated (Moore et al., 1997). In some cases, it is the perceived threat level rather than actual threat level that determines how individuals respond (Moore et al., 1997). Individuals develop a specific attachment style and history to which they constantly refer back (Moore et al., 1997). This history of the attachment process creates an internal working model that builds up an entire collection of various emotions regarding people and relationships that is continuously tested, modified, and re-tested (Moore et al., 1997).

Aside from the importance of these particular social bonds, the most significant aspect of attachment is that, positioned together, these social bonds converge in a way that controls behavior indirectly (Pratt, Gau, & Franklin, 2011). This type of informal control has the ability to affect our lives even when these bonds are no longer present. Social bonds that have control are usually social norms rather than actual laws (Pratt et al., 2011). Aside from obvious laws that state which behaviors are illegal, Hirschi (1969) explains that the set of bonds in the form of morals and values keep us from committing socially unacceptable behavior. Hirschi argues that youth who lack these bonds to society engage in juvenile delinquent behavior. Offenders commit crimes because urges towards deviance are not curtailed; this premise divides the entirety of motivational theories into question (Pratt et al., 2011), and may explain why controlling

approaches designed to prevent risk fail.

Controlling or restrictive environments fail because the sheer act of displaying control damages already fragile attachments of troubled youth to adults. They also prod at power struggles that usually fail in helping youth accept responsibility and own up to their own actions (Moore et al., 1997). However, the attachment literature offers a different approach to working with troubled youth, an approach that begins with appreciation of youth and what they can offer to the public (Moore et al., 1997).

Additionally, youth programs provide avenues to intervene in, reduce, or eliminate problems that youth encounter (Fraser-Thomas et al., 2005). Increasingly, state governments are providing opportunities (e.g., tax credits) that enable parents to send their children to ASPs (Vandell & Shumow, 1999). These efforts reflect principles that align with attachment theory, as programs seek to focus on alternative approaches, such as creating positive school atmospheres, promoting graduation, and fostering strong relationships with mentors at school (Nelson, Nelson, & Campbell, 2005). Beginning with the Clinton administration, the federal government extended the school structure through the funding of community learning centers or ASPs. The No Child Left Behind (NCLB) Act funds ASPs to create community centers with vital roles for youth and families in communities. As Gottfredson, Gerstenblith, Soule', Womer, and Lu (2004) explain, “centers are meant to enable school districts to operate public schools as community education centers that focus on providing academic assistance, drug and violence prevention programming, technology education, art, music, recreation, and character education” (p. 253).

As funding for ASPs and supportive services in schools rose with NCLB, scholarship in education experienced an increase in literature on school engagement with particular emphasis on the importance of school connectedness (Niehaus, Rudasill, & Rakes, 2012). Connectedness,

attachment, and bonding are related terms used to describe children's relationship to school that have significant bearing on school performance (Blum, Libbey, Bishop, & Bishop, 2004). Over several studies, school connectedness demonstrates a positive relationship with academic, behavioral, and emotional outcomes (Niehaus et al., 2012). School connectedness considers relationships with adults and peers in the school environment, but the literature provides great support for the importance of adult leaders (e.g., Klem & Connell, 2004; Niehaus et al., 2012; Rudasill, Reio, Stipanovic, & Taylor 2010; Ryan, Stiller, & Lynch, 1994). Klem and Connell (2004) emphasize that school engagement occurs in environments where students feel that teachers are involved, supportive of their interests, and allow decision-making roles for students. Further, adults who offer structure and guidance, while setting clear expectations, maintain an environment within which students can make effective decisions.

Afterschool programs (ASPs) offer many of the elements needed to forge a connection to school, and advocates of these programs suggest that ASPs offer an indirect route for developing school connectedness (Shernoff, 2010; Watts, Witt, & King, 2008). Effective ASPs are often viewed as something outside of school, and not an extension of the school day (Hall, Yohalem, Tolman, & Wilson, 2003). Adults play a large role in forming this environment, which is highlighted by challenging activities that youth deem relevant and important in an environment that is seen as safe and supportive (Larson, 2000; Mahoney, Lord, & Carryl, 2005; Watts, Witt, & King, 2008). Niehaus et al. (2012) link connectedness directly to self-determination theory, noting that connectedness is closely related to the basic psychological need, relatedness. Specifically, Niehaus et al. state, "the need for relatedness (i.e., the innate human desire to form secure and supportive relational networks in various environmental contexts) is especially pertinent to the present examination of school connectedness, which recognizes that school is a

primary environmental context for children” (p. 444).

However, relatedness alone does not ensure strong connection to programs. Grolnick et al. (1997) explain that autonomy supportive (e.g., allowing choice and decision making) and competence supportive (e.g., providing structure) behaviors of adults enacted with reasoning and empathy yield higher enjoyment, freedom, and importance attached to an activity. Activities that support basic psychological needs of autonomy, competence, and relatedness lead to greater internalization of these activities (Ryan & Deci, 2000). In other words, the experiences become personally meaningful in ways that reflect a person’s beliefs, values, and interests.

In ASPs where adult leaders are also school teachers, the relationships these individuals establish in an ASP with youth may cast the adult leader in a positive light. Youth may come to know and respect teachers within the ASP, and this relationship carries over into school (Roberson, Witt, & Watts, 2007). Shernoff (2010) explains that school connection within ASPs occurs through two theorized models: the mediational model and the differential model. The mediational model explains the indirect effect between program participation and school connectedness. It posits that "greater program participation contributes to a higher quality of students’ experiences afterschool, and that those enhanced experiences, in turn, are associated with greater social competence and better academic performance” (Shernoff, 2010, p. 325). The differential effects model is concerned with the quality of experience within the ASP. Within the differential effects model, youth experience important elements within ASPs that are not found elsewhere. Further, it is not the amount of exposure that exists within the program, but the quality of experience that leads to positive outcomes in academic performance and social competence (Shernoff, 2010). This study focuses on the provision of supports for autonomy and competence as evidence of program quality. As relatedness is closely aligned with

connectedness, this study sought to understand the associations between relatedness and the provision of supports for autonomy and competence by staff.

In conclusion, it is clear that adults play a crucial role in helping youth adopt values that determine what is or is not generally socially acceptable. Outside of parental figures, relationships that involve caring adults provide a positive model for children to emulate and thereby lead a healthy life (Witt & Caldwell, 2005). This study tests the predictive relationship between program features and attachment to afterschool care programs by examining how supports for autonomy and competence are associated with afterschool program attachment. A second hypothesis examines the predictive relationship between afterschool attachment and attachment to school.

Methods

Study Location

There were three locations from which this study sampled study participants. The Lucille W. Gorham Intergenerational Community Center's (hereafter, IGCC) afterschool program in Greenville, NC and the 21st Century Community Learning Centers at the Mattamuskeet and Ocracoke Schools. Data were collected in February 2014 at the IGCC and in early April 2014 at the Mattamuskeet and Ocracoke Campuses.

The IGCC program serves children in grades 2-6, and these youth have been identified as needing afterschool services by their cooperating elementary school. All of the children at the IGCC were African-American and were split nearly evenly in terms of gender. The IGCC was created through a partnership between the west Greenville community, East Carolina University, the City of Greenville, and Pitt Community College. The Center offers various services to the residents of west Greenville and Pitt County and seeks to promote economic development, increase community involvement, improve and advocate for educational opportunities, stimulate health awareness, and provide outreach networks (IGCC, n.d.). Most (60%) of the youth who attend the program reside within eight blocks of the program. The IGCC staff recruits students from various schools in Pitt County through presentations and flyers sent home to parents. The schools serve many minority youth who consistently under-perform academically and who also receive free or reduced meals. Taking these factors into consideration, children who attend this afterschool program are considered at elevated risk for problem behavior.

The Mattamuskeet and Ocracoke 21st Century Programs operate in the elementary school grades at each school campus. Based in Hyde County, the programs combine to serve over 200 elementary school, middle school, and high school students (Watts, 2011). While located in the

same county school district, the two schools are separated geographically by the Pamlico Sound. Mattamuskeet is situated on Hyde County's mainland at the mouth of the Pamlico River, and Ocracoke is on North Carolina's outer banks; it is a barrier island between the Atlantic Ocean and the Pamlico Sound. According to Watts (2011), the Hyde County 21st CCLC offers a broad-based approach to youth development and prevention and targets students at risk for academic failure, dropout, geographical isolation, issues related to family composition, school discipline referrals, and use of tobacco, alcohol, and other drugs.

The Mattamuskeet program serves an entire school campus, which houses an elementary, middle, and early college high school on the same footprint (Watts, 2011). The Mattamuskeet schools serve western Hyde County and the towns of Currituck, Engelhard, Fairfield, Lake Landing, Ponzer, and the Swan Quarter (Hyde County Community Health Assessment, 2011). Mainland Hyde County is over 600 square miles and employs residents in the agriculture, fishing, and tourism industries. It averages just under nine people per square mile and has no stop lights, pharmacies, residing physicians, or dentists. The 21st Century program at Mattamuskeet serves approximately 120 students weekly who are African-American (43%), White (43%), Latino (8.4%), and Bi- or Multi-racial (6.3%) (Watts, 2011).

The Ocracoke campus serves children in grades K-12 within one school. Watts (2011) reports that "many of the children who attend this campus walk to school, and their families are predominantly employed in the fishing, hospitality, and tourism industries" (p. 3). As recently as 2014, the Hyde County Health Department (2014) reports that just over a third of the students served at Ocracoke are Hispanic. Over 60% identify as White or Caucasian (Hyde County Health Department, 2014).

All three ASPs are funded under the 21st Century Community Learning Centers Afterschool Program (ASP), funded by a NC Department of Public Instruction grant. These ASPs run for three hours a day on Monday, Tuesday, Wednesday, and Thursday each week immediately following the end of the school day. The program offers enriching leisure activities (e.g., sports, games, computer projects, arts activities) and homework assistance. The 21st Century Program at each site is offered at no charge to the parents.

Procedure

At each location, all students participating in the program in grades were asked to participate in the study. The study examined the connection between relationships with mentors and youth care programs—specifically how provisions of support for autonomy and competence were related to afterschool program attachment, and how afterschool program attachment was related to school attachment. Students who participated in the study attended schools in Pitt or Hyde County. Letters explaining the nature of the study and informed consent forms were sent home to parents by the staff from each afterschool program. Once the parental consent forms were returned, the students were asked to sign a youth assent form. Before signing the form, an afterschool staff member read the form aloud to each student, and students were encouraged to ask any questions or concerns they have about participating in the study. Students who did not receive parental consent or declined to assent were offered an enrichment activity in a separate room for the duration of the questionnaire administration.

Once consent and assent were obtained, the questionnaire was administered to each student by afterschool staff members. Students were grouped together by grade levels in separate rooms. Questionnaires were entirely read aloud to ensure that children understood the questions

and had the opportunity to ask questions through the questionnaire administration. A copy of the IRB approval from East Carolina University for this study can be found in Appendix C.

Questionnaire

The questionnaire was four pages long (39 items) and contained sections for demographics (i.e., gender, grade level, age, race/ethnicity), attachment to the afterschool program, supports for autonomy and competence in the afterschool program, and school attachment.

Attachment to the Afterschool Program

Attachment to the afterschool program was measured through a scale developed by Watts, Witt, and King (2008). Watts et al. reported acceptable reliability for this scale ($\alpha=.75$). An example item is, “I feel close to the people in the afterschool program.” For each item, respondents were asked to indicate if they disagree or agree with the statement. This was measured on a five-point scale with responses being: (1) Strongly Disagree; (2) Disagree; (3) Not Sure; (4) Agree; and (5) Strongly Agree.

Supports for Autonomy and Competence

Supports for autonomy and competence were measured using adaptations of scales developed by Gillard, Watts, and Witt (2009), Goudas, Biddle, and Fox (1994), and Ntoumanis (2001). Gillard et al. reported adequate internal consistency for each subscale ($\alpha=.85 - .90$) and these scales reflect similar results in other studies. Example items are “Afterschool mentors gave me choices” (support for autonomy) and “We feel that the afterschool mentor likes us to do well” (support for competence). For each item, respondents were asked to indicate if they disagree or agree with the statement. This was measured on a five-point scale with responses being: (1) Strongly Disagree; (2) Disagree; (3) Not Sure; (4) Agree; and (5) Strongly Agree. A summary

score for each basic needs satisfaction subscale was calculated based on responses to each set of items.

School Attachment

School attachment was measured through a scale developed by Resnick et al. (1997), who reported acceptable reliability for the scale ($\alpha = .75$). Example items are “People at school like me” and “I feel close to people at school.” For each item, respondents were asked to indicate if they disagree or agree with the statement. This was measured on a five-point scale with responses being: (1) Strongly Disagree; (2) Disagree; (3) Not Sure; (4) Agree; and (5) Strongly Agree.

Analysis of Data

Logistic regression tests were used to test the study’s hypotheses. Data were imported into a database using the Statistical Package for the Social Sciences (SPSS). Upon transfer to the study team, data were analyzed descriptively for out of range and missing data and to review the range and skewness or kurtosis of responses to specific items. Following this review, data were compiled into appropriate scales and tested using a logistic regression tests.

Results

Sample Demographics

The questionnaire was prepared with the intention of examining the respective research objectives. Demographic information included gender, race/ethnicity, grade, and age. Approximately 64.5% of students (total $n=265$) participating in the three programs took part in the study. Participants ($n=171$) were segmented as coming from the programs at the IGCC, Mattamuskeet School, and Ocracoke School. The three schools were very different in terms of racial demographics, grade levels sampled, and age of the participants. Most participants were African-American (59.1%), the largest racial demographic group at the IGCC and Mattamuskeet sites. The second largest racial demographic group was Latino/Hispanic (22.8%). Sixty percent of the students sampled from Ocracoke reported Latino/Hispanic status, and these students accounted for more than 75% of the total population of Latino/Hispanic students. Ocracoke also had the highest percentage of White students (34.0%), and accounted for 85% of White students in the total sample. Missing data for grade and age made it hard to judge the true age of the sample, but differences were noted for those who reported an age ($F_{(2, 153)}=30.57, p<.001$). Scheffe's post hoc comparisons reveal that participants from the IGCC (Mean age=9.66) were significantly younger ($p<.05$) than participants from the Mattamuskeet (Mean difference=-2.96) and Ocracoke programs (Mean difference= -0.91). Mattamuskeet youth were also significantly older ($p<.05$) than Ocracoke youth. The mean age for the entire sample was 10.77 years. A summary of participant demographics is presented in Table 1.

Table 1

Sample Demographics by Afterschool Program

	IGCC (n=64)		Mattamuskeet (n=57)		Ocracoke (n=50)		Total (n=171)	
	n	%	n	%	n	%	n	%
Gender								
Male	35	54.7%	35	61.4%	29	58.0%	99	57.9%
Female	29	45.3%	22	38.6%	21	42.0%	72	42.1%
Missing ¹	-	-						
Race								
African-American	56	87.5%	45	80.4%	-	-	101	59.1%
White	-	-	3	5.4%	17	34.0%	20	11.7%
Latino/Hispanic	3	4.7%	6	10.7%	30	60.0%	39	22.8%
Asian	1	1.6%	-	-	-	-	1	<1.0%
Other ²	4	6.3%	2	3.6%	-	-	6	03.5%
Missing ¹	-	-	1	1.8%	03	6.0%	4	02.3%
Grade								
2 nd	11	17.2%	-	-	-	-	11	6.4%
3 rd	18	28.1%	5	1.9%	12	30.0%	35	20.5%
4 th	11	17.2%	3	7.1%	7	17.5%	21	12.3%
5 th	11	17.2%	8	19.0%	9	22.5%	28	16.4%
6 th	9	14.1%	7	16.7%	7	17.5%	23	13.5%
7 th	4	6.3%	-	-	-	-	4	2.3%
8 th	-	-	6	14.3%	5	12.5%	11	6.4%
9 th	-	-	3	7.1%	-	-	3	1.8%
10 th	-	-	7	16.7%	-	-	7	4.9%
11 th	-	-	1	2.4%	-	-	1	<1.0%
12 th	-	-	2	4.8%	-	-	2	1.2%
Missing ¹	-	-	15	26.3%	10	20.0%	25	14.6%
Mean Age	9.66		12.61		10.57		10.77	

¹ Missing data not part of percentage column, but reflects the percentage of missing data from the total. For each ASP, the percentage column for each demographic category reflects the valid percent of reported data. The total sample column reflects the percentage each row has from the total.

² Other was exclusively a reply for students who were bi-racial or multi-racial.

Study Measures

All study measures were tested for internal consistency using Cronbach's Alpha. Scales were deemed adequate for statistical analysis when Cronbach's Alpha scores met or exceeded

.60 or higher as directed by Cortina (1993). Table 2 demonstrates that all scales used in the study met or exceeded adequate reliability for statistical analysis. The Autonomy Support Scale was reduced to a two-item scale with the elimination of the item, “I was pushed by afterschool mentors to do things I didn’t want to do” because the question detracted from the overall reliability of the scale, and was generally confusing to students. All scales used items based in a 1-5 range as described in the Methods.

Table 2

Tests of Internal Consistency for Study Measures

Scale	Scale Mean (SD)	Number of Items	Mean of Items	Cronbach’s Alpha
Autonomy Support	4.99 (1.89)	2	2.50	.66
Competence	5.42 (2.21)	3	1.81	.80
ASP Attachment	32.04 (6.14)	8	4.01	.89
School Attachment	24.66 (4.65)	6	4.11	.85

Hypothesis Testing

Prior to hypothesis testing, the lead researcher performed tests of normality on all study variables. Ordinary Least Squares Regression requires normally distributed dependent variables. Scales measuring ASP Attachment and School Attachment, which served as dependent variables in hypotheses 1 and 2 respectively, did not meet the assumptions of a normal distribution. Transformation procedures (i.e., logarithm and square root) were attempted, but data for each scale proved to be too skewed, so logistic regression procedures were utilized to test the study hypotheses. A report of results for each hypothesis follows.

Results for Hypothesis 1

H1: Supports for autonomy and competence will be positively associated with attachment to the afterschool program.

To test hypothesis one, analyses examined competence and autonomy as independent variables predicting the outcome, afterschool attachment. In the initial analysis, gender and age were also included, as developmental variation is often linked to these two variables. However, each was dropped from the final model for parsimony as neither variable significantly predicted afterschool attachment. Afterschool attachment, the dependent variable, was coded as low attachment equals '0' and high attachment equals '1'. Table 3 reflects the final model for hypothesis testing.

Table 3

Logistic Regression Analysis of Afterschool Attachment (n=160)

Independent variable	<i>B</i>	<i>SE</i>	<i>Wald</i>	<i>Sig</i>	<i>Exp(B)</i>
Competence	1.433	.383	13.976	<.001	4.191
Autonomy	.924	.268	11.911	.001	2.520
Constant	7.194	1.663	18.704	<.001	

Model $X^2= 55.049, p<.001$

*Pseudo R*²= .460

Table 3 shows that both competence ($B=1.433, SE=.383, p<.001$) and autonomy ($B=.924, SE=.268, p<.001$) positively predicted afterschool attachment. This means that when provision for competence and autonomy was high, afterschool attachment was high. There was support for hypothesis one as both competence and autonomy were positively associated with afterschool attachment. Approximately 46% of the variation ($Pseudo R^2= .460$) in afterschool attachment was explained by this model.

Results for Hypothesis 2

H2: Attachment to the afterschool program will be positively associated with school attachment.

To test hypothesis two, the analysis utilized afterschool attachment as the independent variable predicting the outcome school attachment. As in the previous analysis, gender and age were also included. Gender was dropped from the final model for parsimony, as it did not significantly predict school attachment. School attachment, the dependent variable, was coded as low attachment equals '0' and high attachment equals '1'. Table 4 reflects the final model for hypothesis testing.

Table 4

Logistic Regression Analysis of School Attachment (n=160)

Independent variable	<i>B</i>	<i>SE</i>	<i>Wald</i>	<i>Sig</i>	<i>Exp(B)</i>
Age	-.253	.094	7.327	.007	.776
Afterschool Attachment	.839	.274	9.362	.002	2.313
Constant	.756	1.473	.263	n.s.	

Model $X^2= 18.698, p<.001$

*Pseudo R*²= .181

Table 4 shows that afterschool attachment ($B=.839, SE=.274, p=.002$) positively predicted school attachment. This means that when youth reported high afterschool attachment they were also likely to report their school attachment as high. Age also factored into this model ($B= -.253, SE=.094, p=.007$), and it negatively predicted school attachment. Simply put, older children were likely to report lower levels of school attachment when compared to younger children. Results supported the hypothesis that afterschool attachment was positively associated with school attachment. However, when compared to their older counterparts, it appears that younger children experienced higher levels of school attachment. Approximately 18% of the variation ($Pseudo R^2= .181$) in school attachment was explained by this final model.

Conclusions and Discussion

This study sought to test and examine the relationships between program features in ASPs, youths' perceptions of attachment to ASPs, and their attachment to school. The study attempted to bridge the gap between Hirschi's Social Control Theory and Self-Determination Theory, two theories that typically explain participation in leisure behavior. The two theories align around the idea of social connectedness and meaningful relationships in the related concepts of attachment or connectedness (Social Control Theory) and relatedness (Self-Determination Theory). Previous research suggests that attachment within programs and schools develops when youth are mentored by an adult figure with whom they can develop an emotional bond (Moore et al., 1997). According to the attachment literature, attachments to people who emulate prosocial behavior have the potential to increase young people's adherence and connectedness to those behaviors and activities that align with prosocial values. Similarly, Self-Determination Theory (SDT) explains that people internalize personal meaning in activities when supports for relatedness, competence, and autonomy are present within program environments (Ryan & Deci, 2000). Internalization of behaviors is evident when values and beliefs about the importance of specific behaviors (in this case, prosocial values) are expressed by young people.

The first analysis tested if support for autonomy and competence by afterschool staff predicted attachment to the afterschool program. Results demonstrate that autonomy and competence predicted afterschool attachment. The findings related to hypothesis one appear to support explaining school connectedness via the differential effects model, which links program qualities to specific outcomes (Shernoff, 2010). In this case, competence and autonomy were linked to a short-term outcome, afterschool attachment. Watts, Witt, and King (2008) noted that

detecting changes in short-term outcomes is a strong first step to observing long-term changes in behavioral and academic outcomes. The importance of this study is that it links specific processes within programs (i.e., provision of support for autonomy and competence) to an important short-term outcome that can be readily observed.

In the case of this study, supportive teachers were those who offered students opportunities to express autonomy and supports related to safety and expectations that ensured competence. Opportunities for autonomy and competence are critical to developing engaged, self-determined youth (Ryan & Deci, 2000), but may also be indicative of an afterschool program that is effective at developing attachment because it appeals to intrinsic rewards such as a sense of choice and accomplishment. Furthermore, this study has implications to consider when exploring how attachment is supported.

As mentioned previously, the concepts of attachment, connectedness, and relatedness are similar in that each is linked to social connectedness and social support (Blum, Libbey, Bishop, & Bishop, 2004; Ryan & Solky, 1996). As Ryan and Deci (2000) explain, social support is often cited as a reason for why individuals attempt new behaviors; however, feelings of relatedness can occur within settings where control exists. The provision of supports for autonomy and competence are linked to social behaviors perceived as empathetic and appeal to affective states that suggest strong connections to others (Grolnick, Deci, & Ryan, 1997). Internalization of behavior is strengthened when supports for autonomy and competence exist and often explain why individuals continue behavior initiated for social reasons (Ryan & Deci, 2000).

The second hypothesis stated that attachment to the afterschool program would predict attachment to school. Findings support hypothesis two, as there was a clear association between the two variables. Similar findings were reported by Watts et al. (2008), who observed

relationships between specific afterschool characteristics (i.e., homework help, safe and caring environment), satisfaction with the afterschool program, and positive school attributions. Shernoff (2010) attributes opportunities to engage youth as being central to why these programs succeed in impacting academic and social outcomes. Beyond a positive social environment, Shernoff noted that quality afterschool programs offered opportunities for skill development, challenge, and activities that youth deemed important. Specifically, Shernoff found that the quality of engagement in afterschool programs partially mediated the effects of afterschool program participation on social competence. Shernoff also found that students in afterschool programs fared better academically when compared to those students who attended other public and home-based out-of-school time settings. Shernoff's observations are consistent with several other researchers of ASPs and structured youth programs (Larson, 2000; Mahoney, Lord, & Carryl, 2005; Watts, Witt, & King, 2008). These studies pointed to supportive staff, freely chosen participation, engagement, and persistence through challenge as key to long-term participation in structured afterschool settings and the associated positive social, behavioral, and academic outcomes afforded through participation.

When examining hypothesis two for developmental variation due to age and gender, age was observed to be negatively predictive of attachment. This means that younger children were more likely to be attached to school than older children. Overall, it seemed that younger participants had higher levels of school attachment when compared with their older counterparts. This could be due to the fact that older youth were more set in their ways and were less likely to conform to something that is unknown to them. Attachment is often viewed as a process that has greater impact on younger children, as it has roots in early child development. However,

Hirschi's (1969) work and subsequent studies describe an ongoing process that is reinforced by parents, other adults, and social institutions over time.

Investigation of the second hypothesis brings to light the many challenges of explaining how youth become connected to school. Age and afterschool attachment combined to explain 18% of the variance in school attachment, which suggests that there are other factors to consider when examining school attachment. The role of parents, peers, other adults, and school climate have all demonstrated similar relationships with school attachment (Libbey, 2004), which demonstrates the complexity of the processes at work within youths' social ecology (Bronfenbrenner & Morris, 1998). Furthermore, some researchers warn about attributing causality to afterschool and school-based programs when considering school connectedness (Niehaus et al., 2012; Thomas & Smith, 2004). These authors point to the reciprocal nature of relationships between teachers, students, and their peers in terms of how youth are oriented to school. Achievement orientation and sociability may make some students attractive to teachers and peers, who in turn develop stronger relationships with youth who exhibit these qualities. The result could be mutually reinforcing relationships that influence school connectedness and further enhance achievement. Practitioners wishing to positively impact youth need to take into account these interpersonal factors when implementing programs in order to impact the greater good.

Limitations and Recommendations for Future Study

There are a number of limitations to the study that impact the generalizability of results. The study used cross-sectional data to investigate processes that typically occur over time. Future studies should consider a repeated measures design that follow children as they enter the afterschool program and examine processes that appeal to developmental appropriateness of

activities and influences on program engagement (i.e., support for basic needs, safety). Another limitation to the study was related to administration of the questionnaire. At the IGCC, the lead researcher administered the tests. As a previous volunteer at the site, the lead researcher had a close relationship with all of the youth; this had the possibility to affect how truthful they were when self-reporting. At the Mattamuskeet and Ocracoke sites, program coordinators administered the questionnaire. In either case, there were no assurances that students were just providing information that they perceived was desirable to adult leaders. While program coordinators (who do not engage in daily programming) collected data at the Hyde County program, utilizing independent evaluation staff may be one way to eliminate this bias.

Sampling was also limited as the sample was largely a convenience sample at the Mattamuskeet and Ocracoke sites, and a sample of the entire program at IGCC. As such, the findings cannot be generalized beyond the current study sample. Random assignment of participants to different types of programs or randomly selecting children from similar areas and comparing those who have ASPs available to those who do not might yield a better understanding of just how these programs contribute to school attachment.

With these limitations in mind, the study suggests that certain supports within ASPs are associated with attachment to those programs, and that there is likely an association between ASP attachment and school attachment. When youth are given the opportunity to mature and grow under supportive environments, they are more likely to attach to these environments and, likely, adopt norms and values that lead to positive development. Providing them with regular and consistent access to an enriching environment during the non-school hours exposes them to certain supports that encourage them to do better behaviorally and academically.

Future research on program quality needs to go beyond the scope of this study to examine the content of activities and the delivery strategies that staff utilize to relay content to youth. This study limited its focus to relationship-based processes (i.e., the support of autonomy and competence) and the bonding that occurs between program staff and youth. Researchers in positive youth development recommend examining the specific content of programs (Vandell, Reisner, Brown, Pierce, Dadisman, & Pechman, 2004). To differentiate ASPs from school, or ‘more school’ as described by Hall et al. (2003), studies need to take into account how well programs balance academic and nonacademic enrichment activities that build skills (Bransford, Brown, & Cocking, 1999; Vandell et al., 2004). This would include examining the extent to which activities are knowledge-centered versus youth-centered. In addition to providing autonomy and opportunities for leadership within activities, researchers could understand how structured and unstructured learning opportunities are utilized within programs to challenge youth and focus on mastery of academic and non-academic skills (Vandell et al., 2004).

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Appendix A: Extended Literature Review

Recreation centers and youth care programs offer the potential to make a great difference in the lives of youth, and these approaches receive attention when examining the problems associated with delinquency and academic failure. In 2011, nearly 1.5 million youths were arrested who were under the age of 18 (Office of Juvenile Justice and Delinquency Prevention, 2014). Prevention has been a primary goal of law enforcement and other related individuals who come into contact with youth (Hastad, Segrave, Pangrazi & Peterson, 1984). Diverting these youth from antisocial behavior from an early age is a major challenge.

A new approach to addressing delinquency goes outside the traditional models of control and containment of behavior and towards a model that integrates the different dynamics of a troubled youth's life with a positive service provider (Moore, Moretti, & Holland, 1997). This strategy is implemented with the development of attachment in mind. Hirschi (1969) explains that attachment is an essential process that helps youth regulate their behavior by identifying with adult role models. The role that attachment can play in a child's life is critical to promoting positive youth development through programs, while lowering rates of delinquency.

Delinquency

Troubled youth, at-risk-youth, and delinquents are labels for individuals who have issues fitting in so-called traditional social circles and maintaining positive relationships (Siegel & Senna, 1997). Many theoretical perspectives from the social sciences examine juvenile delinquency (Kavussanu & Boardley, 2009). Psychological approaches vary based on specific schools of thought (i.e., behavioral, psychodynamic, social learning, self-concept and cognitive theories). Sociological perspectives, including social disorganization, strain, and the differential association, attempt to explain juvenile delinquency (Kavussanu & Boardley, 2009).

According to Hirschi (1969), the problem with all criminological theories was that they began with a faulty premise: in order for crime to occur, criminal motivation must be created. For example, strain theory emerged out of Merton's work (1938), and suggested that it was the inability of youths to reach their goals and aspirations legitimately, which led them to break social norms and standards (Pratt, Gau, & Franklin, 2011). Alternatively, differential association theory found that criminal behavior was an aspect learned through contact with deviant peers and deviant social values that provided the motivation to offend (Akers & Sellers, 2008). In contrast, Hirschi posited that it was human nature to be "selfish and express aggressive ways that lead to criminal behavior" (p. 54). He believed that the ability to control their urges separates many individuals from a criminal lifestyle. Similarly, Roth, Brooks-Gunn, Murray, and Foster (1998) referred to positive development as engaging in prosocial behaviors and avoiding antisocial behaviors. Taking this orientation a step further, Huebner and Betts (2002) suggested that youth development "occurs on a continuum with negative and positive outcomes on opposite ends of the spectrum" (p. 125).

Over time, the relationship between delinquency and recreation has been studied extensively. As early as the 1900s, social researchers have promoted recreation as a means to fight delinquency (Cross, 1990; Larson, 1994; Witt & Crompton, 1997). One of the most essential ideas of Jane Addam's (1913) framework was the idea that the extensive activities provided by local recreation organizations were powerful enough to break the cycle of delinquent activity within communities. Additionally, many professionals believe that with adult supervision, these activities can be used to promote positive social tendencies, which in turn will discourage delinquency and provide a medium for training model citizens (Larson, 1994).

Farrington, Ohlin and Wilson (1986) found that weak parental bonds with their children were correlated with antisocial behavior. Conversely, it was observed that shared leisure activities were extremely important factor to promote family bonding and the prevention of juvenile delinquency (Munson, 2002). Agnew and Petersen (1989) conducted one of the first comprehensive studies of leisure and delinquency and hypothesized that the involvement in highly supervised activities with supportive parents could increase the attachment and commitment to conventional institutions and reduce opportunities for delinquency. Their study illustrated a positive correlation between delinquency and time spent in unsupervised peer-orientated social activities and a negative correlation between time spent in organized leisure activities and delinquency. The researchers concluded that certain types of recreational activities might be unrelated to delinquency, while some actually foster it.

Theoretical Framework: Social Control Theory

Social control theory (SCT) provides a unique explanation of how ASPs can support positive youth development. Developed to explain delinquency and delinquency prevention, the SCT has implications for instilling values that prevent risk and promote wellness and positive development. This review outlines the theory as it relates to delinquency and then links attachment, an essential element in the adoption of values and morals, to other risk prevention and positive youth development.

Control theorists suggest that delinquent acts will always occur if there are not strong personal and social controls (Kelley, 1996). Apparently, conformity to prosocial norms is the answer to countering delinquent behavior, and social control theorists focus on explaining why youths do not engage in criminal behavior (Kelley, 1996). Hirschi (1969) suggested delinquency occurs when social bonds are weak between the individual and society. Given this, Huebner and

Betts (2002) assumed that an individual's bonds to society are the mechanisms through which positive development occurs and negative outcomes are avoided. There are four major components of these bonds: attachment, commitment, involvement, and beliefs (Hirschi, 1969). Attachment refers to the adoption of values and or norms through social bonding. It is forged first by parents and later by prominent adults in social institutions. Commitment is related to aspirations related to attaining education and employment. Involvement refers to participation in conventional activities that lead to status-driven norms around success. Belief involves acceptance of a central social-value system that adheres to strict rules of what is anti-social and what is not.

These internal and external mechanisms have the power to control a potential offender's behavior (Kelley, 1996). Of the four bonds, attachment and involvement offer a blueprint to working with youth while appreciating the youth's internal working models of self and other (Moore, Moretti, & Holland, 1997). As such, this review will highlight the attachment and involvement bonds of SCT as suggested by Moore, Moretti, and Holland (1997). These two bonds are consistent with the purpose of most youth ASPs, specifically, providing opportunities to build strong relationships with caring adults and involvement in prosocial activities (Huebner, 2002; Roth et al., 1998).

Attachment. Attachment refers to “the amount of psychological affection one has for prosocial others and institutions” (Pratt et al., 2011, p. 58). When youths engage in pleasurable recreational activities with parents or mentors in the community, they increase their attachments to these institutions and individuals (Agnew & Petersen, 1989). Hirschi (1969) indicated that those feelings are the “essence of the internalization of norms” (pp. 18-19). Along with Hirschi, Bowlby (1969) believed that attachment was a fundamental human need, but the essence of his

conceptualization is that individuals demand attachment for the survival of the human species (Moore et al., 1997). Hirschi compounded these beliefs with the observation that parents and schools were a critical component to ensuring attachment; “where youths who form close attachments to their parents and schools will, by extension, experience greater levels of social control” (Pratt et al., 2011, p. 58).

Individuals strive to maintain a balance of “connectedness and separation in order to ensure a sense of felt security is a constant in our relationships” (Moore et al., 1997, p. 8). These dynamics are a part of an ongoing process of evaluating relative safety and risks while maintaining balance (Moore et al., 1997). The attachment system is activated when there is a perceived “threat of abandonment or engulfment” because it is then that our stress levels are elevated (Moore et al., 1997, p. 8). In some cases, it is the perceived threat level rather than realistic level of threat that determines how individuals respond (Moore et al., 1997). It is believed that from conception through the life-course, individuals develop a particular attachment style from a multitude of feelings and beliefs about people and relationships, which is constantly being tested and retested (Moore et al., 1997). Thus, attachment or bonding to conventional norms may best be implemented through heavy adult supervision while engaging in prosocial engagements (Agnew & Petersen, 1989).

Aside from the fundamental importance of these particular social bonds, the most significant aspect of Hirschi’s (1969) theory is that, collectively, these social bonds conjoin in a way that controls behavior indirectly; put simply, these bonds do not need to be heavily present in our lives to keep our behavior in check (Pratt et al., 2011). Hirschi believed that our social bonds represented a type of informal control, which has the ability to control our lives even when they are no longer visibly present (Hirschi, 1969). The bonds that have control are usually

universal social agreements rather than mandated laws (Pratt et al., 2011). Aside from the obvious laws that state which behaviors are illegal, Hirschi explained that the set of bonds in the form of morals and values continually keep us from committing socially unacceptable behavior. With respect to juvenile delinquency, Hirschi argued that youths lack these bonds to society and end up committing crimes because their natural urges are not curtailed; this premise called the entirety of motivational theories into question (Pratt et al., 2011).

Involvement. Another type of bond under the realm of social control theory, involvement, refers to the amount and type of activities that youth are involved in during their free time (Pratt et al., 2011). If youth are involved in prosocial activities, they will be less likely to engage in delinquent behavior, because they will not have the time (Hirschi, 1969). The opportunity costs will be greater for youths to continue with prosocial activities. By heavily involving themselves in legitimate undertakings, they will not be spending that same time doing something that could possibly get them in trouble (Pratt et al., 2011). Jones and Offord (1989) examined the correlation between involvement in an afterschool recreation program on low income children, five to fifteen years old, who lived in public housing in Ottawa, Ontario. The purpose of the program was to increase the interaction of the youths with other positively well-rounded children and adults, by supporting sports, music, arts, and other non-recreational areas (Jones & Offord, 1989). Once the supervisors' felt that the children were skilled enough to carry on their activities, they were encouraged to enroll in an additional outside program to help refine and advance their skills (Jones & Offord, 1989). At the conclusion of the program, the number of arrests had declined by 75% for the experimental project and increased by 67% for those in the control project (Jones & Offord, 1989). Significant decreases in positive changed occurred 16 months after the conclusion of the project, but the authors believed that the involvement in after-

school prosocial activities appeared to have correlated with reducing delinquent behavior in the community (Jones & Offord, 1989).

Positive Youth Development

The movement from delinquency prevention to positive youth development reflects a change from ‘deficit-based’ models that seek to control behavior while preventing risk to asset-based models that promote strengths and the successful transition to adulthood (Watts & Caldwell, 2008; Witt & Caldwell, 2005). Primary to this orientation is that being ‘problem free’ is not ensuring that young people are fully prepared to handle the challenges of growing up and being fully engaged as citizens in communities (Pittman, Irby, Tolman, Yohalem, & Ferber, 2003). Specific principles guide adult leaders to ensure that youth are problem free, fully prepared, and fully engaged. In the case of ASPs, attachment or connectedness to these programs is linked with attachment to schools, and eventually, improved academic performance (Watts, Witt, & King, 2008).

Attachment and Connectedness

As the youth literature shifted from risk prevention to positive youth development, researchers began to examine past areas to explain the role of socializing agents in the lives of youth. The concept of attachment in social control theory was applied outside the family to include school. One school of thought is that school, like the family, has several features that promote positive outcomes while deterring negative ones (Dornbusch, Erickson, Land, & Wong, 2001). Several studies observed that attachment to school was linked to academic motivation and a sense of belonging, and these are correlated with academic achievement (Blum, Libbey, Bishop, & Bishop, 2004; Dornbusch et al., 2001; Niehaus, Rudasill, & Rakes, 2012). Other studies link school connectedness to parent status (single or two parent), environmental risk, and

poverty, suggesting that the correct amount of supports were needed to support the school bond (Brooks-Gunn, Duncan, & Aber, 1997; Mayer & Jencks, 1989).

Much of the literature on school connectedness considers relationships with adults and peers in the school environment, but the literature provides great support for the importance of adult leaders (e.g., Klem & Connell, 2004; Niehaus et al., 2012; Rudasill, Reio, Stipanovic, & Taylor 2010; Ryan, Stiller, & Lynch, 1994). Klem and Connell (2004) emphasize that school engagement occurs in environments where students feel that teachers are involved, supportive of their interests, and allow decision-making roles for students. Further, adults who offer structure and guidance, while setting clear expectations, maintain an environment within which students can make effective decisions. The supports for school connectedness link well with self-determination theory (Ryan & Deci, 2000), which is a prominent theory within the youth development literature (Ellis & Caldwell, 2005; Larson, 2000; Watts & Caldwell, 2008; Witt & Caldwell, 2005).

Self Determination Theory

Similarly to social control theory, self-determination theory provides a feasible explanation as to how attention to basic human needs can assist youth in their quest towards adulthood. SDT illustrates how motivation can have a major impact on development and an individual's behavior, especially youth. The premise of the theory states that through appropriate, conducive environments, individuals can thrive and flourish. SDT also specifies which social environments detract from motivation and social integration (Ryan & Deci, 2000). Self-determination differentiates motivation by separating motives that are intrinsic (challenge, accomplishment, engagement) from those that are extrinsic (rewards, avoiding anxiety, to achieve a goal).

As a macrotheory of human motivation, SDT address a variety of basic issues including universal psychological needs, the relations of culture to motivation, and the impact of social environments on motivation, affect, behavior, and well-being (Deci & Ryan, 2008). As stated earlier, motivation is a central component of this theory. It is extremely valued because of its consequences (Ryan & Deci, 2000). Unlike other sociological theories that focus on motives, motivation is not a singular concept, and with that, it suggests that people can be moved to act depending on the presence of needs related to opportunities for autonomy, competence and relatedness. The idea of internal motivation versus external coercion is familiar to everyone and it raises the question: Do people act a certain way because of personal interests or out of pressure from outside sources (Ryan & Deci, 2000)?

Attachment and SDT both rely on motivation as a determining factor of behavior. These two theories hold that through motivation, an individual's behavior will be predicated based off motivating or demotivating factors that cause them to act a certain way. There are two main types of motivation that can either motivate an individual because they value an activity or because there is strong external coercion (Ryan & Deci, 2000). Intrinsic motivation, refers to humans natural tendency to continually seek out new challenges that extend and exercise one's capabilities. Through exploration and a natural inclination towards mastery and spontaneous interest, humans can reach a principal source of enjoyment and vitality that are essential to cognitive and social development throughout life (Ryan & Deci, 2000). Through experimental paradigms, researchers have been able to “ specify the conditions under which people's natural activity and constructiveness will flourish, as well as those that promote a lack of self-motivation and social regulation” (Ryan & Deci, 2000, p. 69).

Competence, autonomy, and relatedness are the three basic needs that have been defined as an “energizing state that, if satisfied, conduces towards health and well-being but, if not satisfied, contributes to pathology and ill-being” (Ryan & Deci, 2000, p. 74). Ryan and Deci have proposed that the basic needs must be satisfied throughout the duration of the life span in order to experience satisfaction (Ryan & Deci, 2000). Thus, social environments need to be places that allow youth to thrive by fulfilling all three basic needs. Problems arise when all three needs cannot be afforded because they engender conflicts between basic needs that set up conditions for alienation and psychopathy (Ryan & Deci, 2000; Ryan, 1995).

In terms of attachment, the same premise of motivation applies. When there is a relationship between a youth and an adult, depending on how the adult treats the youth and how much freedom the youth has (or how much the youth is controlled), determines their motivation for completing an activity. Controlling a youth and mandating what they can and cannot do will highly diminish or completely extinguish any intrinsic motivation that was previously there. Anything that a youth does while involved in that type of relationship is an example of a social environment that is antagonistic toward tendencies of positive development (Ryan & Deci, 2000).

Relatedness, which most closely resembles attachment, is considered instrumental to internalized or internally regulated behavior. Internal regulation refers to the process of finding personal meaning through an adopted value, identity or integration to goals one deems important. Grolnick, Deci, and Ryan (1997) noted that relatedness and autonomy provision were closely tied. Parents often structure children’s environments and these structures can be controlling (detracts from autonomy) or empathetic and reasoning (supports autonomy) (Grolnick et al., 1997). The provision of an autonomy supportive environment is linked to affective components

that have bearing on relatedness, and over time lead to greater trust and connection to adult leaders (Watts & Caldwell, 2008). Expanding on this idea, Ellis and Caldwell (2005) advocate implementing activities that allow for ‘voice and choice’ within afterschool and recreation settings, as these supports for autonomy promote agency and lead to greater engagement in leisure programs.

In support of self-determination theory, several scholars (e.g., Caldwell & Baldwin, 2003; Gillard, Watts, & Witt, 2009; Ramsing & Sibthorp, 2008; Sibthorp, Paisley, & Hill, 2003) have identified the basic psychological needs of autonomy and competence as important features of youth development programs. The attachment literature supports the need for autonomy and competence, and the presence or absence of these supports may explain why youth feel connected to a program. The opportunity to experience autonomy in youth programs is critical in helping young people develop an internal locus of control (Ellis & Caldwell, 2005; Ryan & Deci, 2000). Support of competence allows youth to attribute their successes to their actions, and is reinforced and monitored by staff to ensure success and safety (Gillard et al., 2009). Measuring these features provides a basic understanding of the developmental environment in which children and adolescents are immersed (Gillard et al., 2009; Ramsing & Sibthorp, 2008). This is also congruent with self-determination theory, which suggests that supports for the basic psychological needs of relatedness, competence, and autonomy lead to long-term, internalized participation in programs (Larson, 2000; Ryan & Deci, 2000). Extending this further, Watts and Caldwell (2008) make clear that the way to support attachment or connectedness to youth programs is to offer an environment where youth feel safe (physically and psychologically) and supported in their choices. Long-term experiences in programs that offer these elements lead to

perseverance through challenges and the development of initiative (Larson, Hansen, & Walker, 2005).

Self-determined reasons (intrinsic and internally regulated motives) for action usually lead greater commitment and long-term engagement, which boosts performance and creativity (Ryan & Deci, 2000). The understanding of basic human needs is paramount to understanding why certain environments enhance well-being whereas others do not (Deci & Ryan, 2008).

Youth care programs, specifically, ASPs, are an optimal example of how youth can be affected by the type motivation they possess and how different facets of the program, including staff members, affect their participation.

Youth Programs

Recreation

Recreational activities have been a proposed solution to help curb the delinquency problem. Recreation is defined as, any activity that is voluntary and completed simply for intrinsic value. Usually, these are organized activities that hold some personal and social benefits, including restoration and social cohesion (Kelly, 1996). One of the problems with using recreation, as a sole factor for deterrence, is that there is no conclusive evidence to suggest that recreation programs deter youths from engaging in delinquent acts (Munson, 2002). As such program evaluations need to be carefully planned and designed to explain the critical variables that impact positive youth development, beliefs, and behaviors (McGuire & Priestley, 1985; Munson, 2002; Witt & Crompton, 1997). Attachment theory provides some guidance and outlines behaviors that range “from control to connection” (Moore et al., 1997, p. 4). Moore et al. are critical of traditional strategies (e.g., intrusive and coercive control), stating that controlling strategies fail when youth who have an existent negative internal working model of adults.

Specifically, when youth believe that adults do not have their best interest at heart, controlling strategies fail (Moore et al., 1997). Troubled youth need to feel appreciated and safe before they realize that they need/want to change (Moore et al., 1997).

More recently attachment has taken on a broader term in the literature, alternatively referred to as connectedness. In regards to attachment, youth recreation programs are one avenue that has been suggested in recent years as a way to intervene in youth's lives, reduce, or eliminate the problem all together (Fraser-Thomas et al., 2005). Attachment and connectedness have been the focus of many school-based and afterschool programs to address issues related to social competence and academic performance (Blum, Libbey, Bishop, & Bishop, 2004; Niehaus, Rudasill, & Rakes, 2012; Watts, Witt, & King, 1998).

Rise of Afterschool Programs

Since the late 1990s, more states are providing avenues that enable parents to send their children to afterschool programs, (Vandell & Shumow, 1999). These efforts coincide with the "attachment approach" that focuses on alternative approaches, such as creating positive school atmospheres, promoting graduation, and strong relationships with mentors at school. Beginning with the Clinton administration, the federal government has realized that there needs to be an extension of school structure after the school day concludes. "No Child Left Behind Act" included major funding for ASPs because these centers are crucial in communities whose focus is providing additional assistance to children at-risk for academic failure. ASPs offer a wide variety of services that include academic assistance, drug and violence prevention programming, technology education, art, music, recreation, and character education (Gottfredson, Gerstenblith, Soule', Womer, & Lu, 2004).

Afterschool programs (ASPs) offer many of the elements needed to forge a connection to

school, and advocates of these programs suggest that ASPs offer an indirect route for developing school connectedness (Shernoff, 2010; Watts, Witt, & King, 2008). Effective ASPs are often viewed as something outside of school, and not an extension of the school day (Hall, Yohalem, Tolman, & Wilson, 2003). Adults play a large role in forming this environment, which is highlighted by challenging activities that youth deem relevant and important in an environment that is seen as safe and supportive (Larson, 2000; Mahoney, Lord, & Carryl, 2005; Watts, Witt, & King, 2008). Niehaus et al. (2012) link connectedness directly to self-determination theory, noting that connectedness most closely to the basic psychological need, relatedness. Specifically, Niehaus and colleagues state, “the need for relatedness (i.e., the innate human desire to form secure and supportive relational networks in various environmental contexts) is especially pertinent to the present examination of school connectedness, which recognizes that school is a primary environmental context for children” (p. 444).

Program Design and Content

The design of youth care programs should contribute to positive youth development in multiple ways. Fraser-Thomas et al. (2005) suggested that positive youth development is influenced most when youth participate in activities on a continual basis in programs that have increasing levels of complexity and involve the development of long-term reciprocal relationships. Along with the context of the youth care programs, influence from coaches, parents, and other adults can play large a role positively or negatively influencing choices youth make (Fraser-Thomas et al., 2005). Focusing on these strategies shifts the focus of programs from traditional intervention treatment to providing progressive strategies to keep youth and their families on the right track (Moore et al., 1997). When dealing with youth, the priority should be placed on “developing and maintaining relationships rather than overt control” (Moore et al.,

1997, p. 10). This benefits both the adult and youth by requiring a significant emotional investment from staff members, which challenges their own attachment, needs and dynamics (Moore et al., 1997).

Program Features

Several studies have articulated the need to provide specific program features to enhance positive youth development. In summarizing the literature, Lippman and Rivers (2008) state that effective programs share the following characteristics: appropriate structure, physical and psychological safety, opportunities for skill building, and are SAFE (sequenced, active, focused, and explicit).

Appropriate Structure. Good ASPs recognize that structure is highly necessary. It provides youth with clear boundaries and expectation, and make clear which behaviors are acceptable and which behaviors are not. Lots of unstructured time is often difficult for youth to manage, and provides opportunities for problem behavior. Appropriate structure allows youth to feel comfortable and connect with others socially, while setting limits and providing age-appropriate monitoring (Lippman & Rivers, 2008).

Physical and Psychological Safety. Juvenile crime peaks during the hours of 2 p.m. and 6 p.m., which is exactly why ASPs promote and provide programs for adolescents during this same time period. Highly qualified adults are needed to supervise youth and provide them with care to ensure physical and psychological safety (Gottfredson et al., 2004). Safety concerns related to juvenile crime could range from actually committing the crime, engaging in risky behavior, witnessing, or becoming a victim of crime, and ASPs can be extremely beneficial in protecting youth from different types of potential danger (Lippman & Rivers, 2008).

Opportunities for Participation, Contribution, and Recognition. Opportunities for participation, contribution, and recognition are important to instilling a sense of belonging, sense of mastery, and sense of generosity and mattering (Witt & Caldwell, 2005). It is highly important for youth to have somewhere they can go that will offer challenges, but still allow them to feel comfortable, be fully engaged, and to be recognized for the skills and talents they possess as a human being (Witt & Caldwell, 2005).

SAFE (sequenced, active, focused, and explicit). For afterschool program to be successful and effective, programs need to be properly sequenced, ensure active participation, and focus on multiple aspects of youth development (e.g., person and social skill development), and designed to reach explicit goals or outcomes that are clear to youth (Lippman & Rivers, 2008).

Conclusion

The purpose of this paper was to highlight how social control theory and self-determination theory provide principles for staff working in youth programs. The literature provides guidance as to how social institutions such as afterschool, recreation, and other structured programs for youth can positively impact youth. Central to these approaches are relationships with adult leaders. Adult leaders provide strong role models from which to strengthen social bonds, support internalized forms of motivation, and lead to greater meaningful engagement in youth programs. Securing attachments to these entities lead to social, behavioral, and achievement outcomes that have long-term benefits and aid in the transition to adulthood.

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Appendix: B: Questionnaire

Winter 2013-14 Survey

Please read the following:

You are taking part in this study to help us how mentors and afterschool programs affect the way children do things in their everyday lives. This questionnaire should take no more than 20 minutes to complete. There are three important things you should know before you begin:

1. All answers are confidential. This means that your identity is protected. All of your answers will be combined with others at school to help us know what life and school is like for all students.

2. Answering these questions is voluntary. This means you can choose not to answer any question that makes you feel uncomfortable. You can also stop answering questions at any time. However, we would really appreciate it if you could fill out as much of the question form as possible.

3. We would appreciate it if you answered your questions honestly. THIS IS NOT A TEST. There are no right or wrong answers to these questions. We want to learn about you and how you feel about attending this afterschool program and being around different mentors.

Question 1. What is your ID number? *

If you do not know your ID number, please ask your teacher

Question 2. Student Gender: Are you...?

- Male
- Female

Question 3. What grade are you in?

- 2nd
- 3rd
- 4th
- 5th
- 6th

Question 4. How old are you?

Question 5. What is your race?

- African American or Black
- Asian or Pacific Islander
- White
- Latino or Hispanic
- Multiracial or Biracial

Free Time Activities

Indicate about how many hours of week you do the following in your free time.

How many hours a week do you...?	Number of Hours Per Week						
	None	Less than 1 hour	1-2 hours	3-4 hours	5-6 hours	7-8 hours	9 or more hours
Play sports through school or a recreation league	0	<1	1-2	3-4	5-6	7-8	9+
Play an instrument in school band or lessons afterschool	0	<1	1-2	3-4	5-6	7-8	9+
Participate in a school-based club or after-school program.	0	<1	1-2	3-4	5-6	7-8	9+
Participate in Boy Scouts or Girl Scouts	0	<1	1-2	3-4	5-6	7-8	9+
Participate in other organized groups outside of school (like a church-based group, 4-H, FFA, or some other youth group)	0	<1	1-2	3-4	5-6	7-8	9+
Engage in a hobby (like model building, baseball card collecting, sewing, needlepoint)	0	<1	1-2	3-4	5-6	7-8	9+
Spend time playing or doing something fun with your parents or other family members	0	<1	1-2	3-4	5-6	7-8	9+

Student Assessment of the Afterschool Program

Please place a circle the answer that tells us how much you agree or disagree with each statement.
 (* Items for the Afterschool Attachment Scale)

Statement	Strongly Agree	Agree	Neither nor Disagree	Disagree	Strongly Disagree
I feel close to the people in the afterschool program.*	SA	A	N	D	SD
I like to going to the afterschool program.*	SA	A	N	D	SD
The afterschool teachers treat me fairly.*	SA	A	N	D	SD
I feel safe at the afterschool program.*	SA	A	N	D	SD
I like the extra help with school I receive at the afterschool program	SA	A	N	D	SD
I feel like I belong at the afterschool program*	SA	A	N	D	SD
I enjoy the activities at the afterschool program	SA	A	N	D	SD
The activities in the afterschool program are important to me*	SA	A	N	D	SD

***attachment items (marked for thesis proposal only)**

Student Assessment of Program Features

Please place an "X" in the box to tell us how much you agree or disagree with each statement.

Statement	Strongly Agree	Agree	Neither nor Disagree	Disagree	Strongly Disagree
Afterschool mentors gave me choices. (autonomy)	SA	A	N	D	SD
Afterschool mentors took time to get to know me. (relatedness)	SA	A	N	D	SD
It was easy to ask afterschool mentors questions. (relatedness)	SA	A	N	D	SD
I was pushed by afterschool mentors to do things I didn't want to do. (autonomy-Reverse Coded)	SA	A	N	D	SD
I could talk to afterschool mentors about important things. (relatedness)	SA	A	N	D	SD
The afterschool mentors let us help plan activities in the program. (autonomy)	SA	A	N	D	SD
The afterschool mentors help me to improve in school (competence)	SA	A	N	D	SD
We feel that the afterschool mentor likes us to do well (competence)	SA	A	N	D	SD
The afterschool mentor makes us feel like we are able to do the activities offered in the program (competence)	SA	A	N	D	SD

Note: items for each scale are identified in parentheses. These parentheses will be removed when administered.

School Experiences (School Attachment*)

Please place an "X" in the box to tell us how much you agree or disagree with each statement.

Statement	Strongly Agree	Agree	Neither nor Disagree	Disagree	Strongly Disagree
People at school like me	SA	A	N	D	SD
I feel happy at school	SA	A	N	D	SD
I feel close to people at school	SA	A	N	D	SD
The teachers at school treat me fairly	SA	A	N	D	SD
I feel safe at school	SA	A	N	D	SD
I really feel like my teachers care about me	SA	A	N	D	SD

*Note: For proposal use only. These parentheses and scale label will be removed when administered.

Appendix C: IRB Approval



EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
 4N-70 Brody Medical Sciences Building· Mail Stop 682
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Notification of Initial Approval: Expedited

From: Social/Behavioral IRB
 To: [Ariana Jackson](#)
 CC: [Clifton Watts](#)
 Date: 12/10/2013
 Re: [UMCIRB 13-002630](#)
 Examination of attachment in after school programs

I am pleased to inform you that your Expedited Application was approved. Approval of the study and any consent form(s) is for the period of 12/10/2013 to 12/9/2014. The research study is eligible for review under expedited category #7. The Chairperson (or designee) deemed this study no more than minimal risk.

Changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. The investigator must submit a continuing review/closure application to the UMCIRB prior to the date of study expiration. The Investigator must adhere to all reporting requirements for this study.

Approved consent documents with the IRB approval date stamped on the document should be used to consent participants (consent documents with the IRB approval date stamp are found under the Documents tab in the study workspace).

The approval includes the following items:

Name	Description
parental consent form final.docx	Consent Forms
Jackson_IGCC survey.docx	Surveys and Questionnaires
Jackson_Proposal.docx	Study Protocol or Grant Application
Youth Assent Form final.docx	Consent Forms

The Chairperson (or designee) does not have a potential for conflict of interest on this study.