A Pilot Study on Body Image and Self-Esteem: Implications for Creating Landscapes for Families Afterschool Program

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Pledge

Abstract
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My study assessed body image and self-esteem of individuals in grades three through six at East End at Second District Elementary School. I compared children who participated in the Creating Landscapes for Families Afterschool Program (n= 7) to children who did not participate in the program (n= 21). The participants completed two surveys, one in December and one in February, in order to conduct a longitudinal study of the long-term changes in body image and self-esteem. My two hypotheses were: (1) those children in the Creating Landscapes for Families Afterschool Program would have an increased body image and self-esteem compared to those who do not participate in the program; and (2) body image and self-esteem would increase over time for those individuals in the Creating Landscapes for Families Program. Due to the nature of this pilot study and the small sample size, no statistically significant data was found, but some important patterns were identified. No difference in body image and self-esteem occurred between the two groups ($p = 0.452$), but participation in the program could positively impact body image and self-esteem over time ($p= 0.06$). Furthermore, the results of this study suggest that it is important to look at how body image and self-esteem change as children enter their adolescent years, and how the afterschool program combats body image and self-esteem issues. Overall, this study demonstrates that the Creating Landscapes for Families Afterschool Program has the possibility to target children at risk of self-esteem and body image problems.

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Introduction:

Body image and self-esteem are important indicators of positive development prior to and during adolescence (Frost, 2001). By looking at different psychological theories, we can understand why this may occur. For example, Bandura states that we learn how to feel about our bodies by mimicking and learning from how others' treat their bodies (1986). Poor body images lead to eating disorders and increased chances of risky dieting during adolescence (Hesse-Biber, 2007). Body image correlates with self-esteem, and low self-esteem can lead to failing in school, increased chances of teenage pregnancy, and increased alcohol and drug use (Smelser, 1989). Obesity, the built environment, and gardening and afterschool programs influence body image and self-esteem. Increased obesity rates in the past twenty years impact self-esteem and body image in negative ways (WHO, 1998). Furthermore, these impacts are uniquely influenced by the built environment, which impacts walkability and accessibility to food, and self-esteem (Giles-Corti and Donovan, 2002). These impacts are important for children, because they have minimal ability to change their environments. Children and families use gardening programs and/or afterschool programs as a vehicle to improve body image and self-esteem, while also decreasing chances of obesity (Wakefield et al, 2007).

To my knowledge, no study has combined the usefulness of gardening and afterschool programs like the Creating Landscapes for Families Afterschool Program. The program, which runs from October through May, is part of a year-long program, with children participating in a community garden during the summer. Up until this point, the program focuses on improving itself, but not on the impacts on body image or self-esteem that may result from such participation. My goal was to compare children in the program to those not in it, while also comparing the possible long term impacts that may result from continued participation in the program.

Psychological Development in Childhood

In order to fully understand the influences that body image and self-esteem have on individuals, it is important to look at different developmental theories. I say this because these psychological theories cause cultural and societal influences on both body image and self-esteem. Many theorists have looked at the development that occurs between the ages of eight

and twelve. Erikson stated that this age period is vital for self-confidence and communication (Erikson, 1963). Piaget examined how these children focus on critical thinking abilities and generalizing specific data, but they cannot take generalizations and apply them to specific ideas (1977). Bandura's theory focused on how people learn observation; how mental states are important for learning; and how learning does not always cause changes in an individual's behavior (1986). Instead, people often learn through imitating others, usually through modeling. Vygotsky's sociocultural theory expands social learning theory by directly looking at different relationships, and how our relationships impact higher mental functions (1986). Because body image and self-esteem form as a result of development, these psychological theories help us understand why problems may occur.

Body Image

Because of the differing psychological theories, body image has a lot of components and thus many definitions. For the purpose of this paper, I define body image as "how people view and feel about their bodies." I chose this definition by combining many other studies' definitions (Smolak and Thompson, 2009; Pruzinsky and Cash, 2002; Vasconcellos, 1989.) Body image develops throughout childhood and results due to many consequences. Bronfenbrenner's ecological theory best explains these factors because it states that our individual self is influenced and embedded within a number of other factors, such as culture and community (1992).

Cultural stigmatization of individuals leads to negative views on body image. Furthermore, those seen as obese are expected to feel bad about their bodies, because all individuals are seen as having the ability to control their weight (even though this is not always true). In particular, psychological research increasingly focuses on women's body dissatisfaction (Frost, 2001; Striegel-Moore and Franko 2002; Hesse-Biber, 2007). Naturally "fat" and mature female bodies are seen as unattractive (Farrell, 2011). Continuously judging women based on cultural standards turns them into objects (McKinley, 2002). Outliers to these norms are plagued by constant judgment and teasing, which have lasting negative impacts on their self-esteem. Moreover a large focus on females occurs because males have not been evaluated as much on their appearance, though society's changing ideals to see males as fit and strong start to cause body image issues for them as well (Corson and Andersen, 2002; Ricciardelli et al, 2009).

Outside factors, such as cultural values influence our perceptions on how bodies and individuals should look like. Historically those who were thin and fit were more prominent and of higher socioeconomic status than other individuals (Farrell, 2011). People in Europe and Australia tend to have more positive views on the body than those in the United States, where individuals are more likely to diet and participate in weight-loss programs (Holmqvist and Frisén, 2010). Increased access to a strongly influential media helps cause negative body images. Women in media are depicted as young, tall, and thin while men are shown as young, lean, and muscled (Anderson-Fye, 2009). Consistent exposures to these media representations of the body cause individuals to internalize these ideas (Longo et al, 2009). In some cases, media's influence on the body precedes the development of weight concerns (Tiggemann, 2002), which is concerning, considering that children and adolescents now spend more time watching TV (one of the biggest exposures to media) than any other activity (Coleman et al, 2008). Overall the media often represents larger cultural and expectations.

In the United States alone, we behave more positively towards what specific cultures deem as attractive (Hay, 2005). Caucasian women have the most issues with their bodies (Holmqvist and Frisén, 2010), but Asian Americans desire thinness more than Caucasians. Unfortunately, Western ideals of the body simply cannot be attained by Asian Americans, thus causing sweeping problems in regards to body image and self-esteem. This also explains why Asian Americans diet less than Caucasians (Kawamura, 2002; Holmqvist and Frisén, 2010). On top of this, these individuals are exoticized, which causes further issues such as: increased sexualization, racist idealization of gender, and increased issues with objectification (Lee and Vaught, 2003). First generation Hispanics have less body image concerns in the United States (Altabe and O'Garo, 2002), but as Hispanics become acculturated, they begin to show increases in body image concerns. African Americans of all sexes tend to have high levels of body image satisfaction, even if they are of low socioeconomic status (Celio, Zabinski, and Wilfley, 2002). Overall, in Western cultures, Caucasian women are the most dissatisfied with their bodies, when compared to other races of women (Jackson, 2002). Interestingly, minority women tend to have higher average body weights (Williamson, 1993). These cultural influences of the body also depend upon social environments.

On top of cultural influences of the body, our social environments also largely impact body image. Obese individuals and those with eating disorders interact with a social network that has these problems (Fletcher, Bonnell, and Sorhaindo, 2011; NOEIA, 1998; WHO, 1998). Furthermore, children model their parents' views of the body, which often exacerbates body image problems. Once school begins, peer relationships start to influence our views of the body, especially overweight children, who are seen as less popular (Vygotsky, 1986; Bandura, 1986; Fletcher, Bonnell, and Sorhaindo, 2001). Negative stereotypes and stigmatization of body shapes also form at this time (Kinlen, 2006). We constantly compare ourselves to others and infer how others see us which causes us to rate our own attractiveness as low; these issues are exacerbated if individuals are teased (Pope, McHale, and Craighead, 1988). Once children enter the school systems, comparisons occur more often and individuals infer how others see them, which influences how they react towards the individual (Cash and Fleming, 2002). In turn, the individual then starts to react differently towards the person, which proves the original thoughts. The initial thoughts (that were wrong) led to ones that were true. Altogether, the cultural and social views contribute to and impact our individual development of body image.

Finally, body image forms as a function of individual development that occurs throughout the lifespan. From Piaget we learned that we do not have the mental capability to know about our unique mind until about six (1977). Following this development, we begin comparing ourselves to other individuals (Bandura, 1986; Vygotsky, 1986), hence why more comparisons occur during the school years. Self-schemas, the beliefs we have about ourselves, form as a function of cognitive development and past experiences and influence how we relate to our bodies (Cash, 2002). If past experiences have created negative self-schemas, individuals distort their attractiveness and body image (Pope, McHale, and Craighead, 1988). In particular, children focus on specific items of their body, instead of looking at their overall body image and, if refocusing does not occur, these body image issues continue to occur in adolescence.

Body image concerns are highly focused during adolescence, even though they can start earlier. For example, children as young as three stigmatize their overweight peers. By six, they desire thinness and have negative attitude towards fat people (Kinlen, 2006). Overweight children internalize negative thoughts at this age as well. Concerns over the body only increase as age increases, even if their current weight range is normal (Striegel-Moore and Franko, 2002).

As of late, rises in the concerns over the male's body image also occur, due to society's new desire of muscular and athletic physiques (Smolak, 2002; Corson and Andersen, 2002). Late onsets of puberty exacerbate problems for boys (Ricciardelli *et al*, 2003). Overall these concerns over body image are being seen in younger children due to decreases in age of onset of puberty, the increases in childhood obesity rates, and the increased amounts of marketing geared towards children. This correlates to forty percent of elementary school girls and twenty percent of school boys being dissatisfied with their size (Smolak, 2002). Body image problems in childhood lead to dieting, eating disorders and poor self-esteem during adolescence (Frost, 2001; Hesse-Biber, 2007).

Self-Esteem

Correlations between body image and self-esteem exist (Cash and Pruzinsky, 2002), and Pope, McHale, and Craighead say that body image is a part of self-esteem (1988). As children become more concerned with body image, their self-esteem also begins to suffer (Kinlen, 2006; Furnham and Greaves, 1994; Ricciardelli et al, 2003). Self-esteem has a host of different definitions and, for the purpose of this paper I define self-esteem as "how a person feels about himself/herself". Much like my definition of body image, I chose this definition by combining other studies' definitions (Smolak and Thompson, 2009; Pruzinsky and Cash, 2002; and Vasconcellos, 1989; Pope, McHale, and Craighead, 1988). Also, like body image, self-esteem is largely influenced by societal factors and vice versa.

Overall, self-esteem influences society for numerous reasons. Society places such an emphasis on self-esteem because success is based on it (Mecca, Smelser, and Vasconcellos, 1989). Children with high levels of self-esteem have positive attitudes, increased competency, increased self-worth, and follow the rules more (Mecca, Smelser, and Vasconcellos, 1989). This explains why people who perform better often have high self-esteem levels. People with low self-esteem need to be monitored and are seen as helpless, powerless, and withdrawn. Major problems in society are rooted in poor self-esteem: child maltreatment, failing at school, higher chances of teenage pregnancy, increase in crime and violence, and increases in alcohol and drug use (Smelser, 1989). As a whole, self-esteem only focuses on a part of the individual, whereas the root of problems might be due to how an individual looks at the whole self.

Unlike self-esteem, a self-concept is the whole identity of the individual. A well-developed self-concept improves motivation, achievement, confidence, psychological well-being and self-esteem (Hay, 2005). Furthermore, those with a positive self-concept are better able to fight against teasing and peer pressure. Attribution styles, self-control, standard setting, and self-statements shape a child's self-concept (Pope, McHale, and Craighead, 1988). The latter is particularly influential because it looks at attributions and how individuals view themselves, thus providing opportunities to look at things in different ways. In order to improve self-esteem, internal and stable attributions need to be taught to children; this shows that they are able to change future outcomes (Mecca, Smelser, and Vasconcellos, 1989). Table 1 helps provides an example of different attributions and what they might look like.

Table 1: Attribution Styles and Examples

	Internal		External	
Dimension	Stable	Unstable	Stable	Unstable
Global				
Doing bad on test	I'm not smart enough.	I was sick that day.	My teacher is hard.	The test was on a Monday.
Specific				
Doing bad on test	I'm not good at History.	I'm so sick of History.	My teacher gave an unfair test.	Everyone's test had errors on it.

Children that use these social problem solving strategies are better able to deal with negative influences in their life, which helps improve self-esteem (Pope, McHale, and Craighead, 1988; McCabe, Blankstein, and Mills, 1999). Older elementary children have clearer understanding of rules and the problem-solving process, hence why they are better able to use such coping strategies (Pope, McHale, and Craighead, 1988). In particular, children from ages 8 to 10 are aware of their own perspectives and understand others' view points, but they cannot yet look at these ideas simultaneously. People distinguishing their views from others as well as putting themselves in other people's shoes develops at around age 10 (Piaget, 1976). Those individuals without good coping skills are more likely to have lower levels of self-esteem, which in turn increases the susceptibility for depression later on in life (McCabe, Blankstein, and Mills, 1999).

Finally, children who have better control over their emotions and behavior feel more competent and have higher levels of self-esteem (Pope, McHale, and Craighead, 1988). These ideas relate to Erikson's stages of both initiative versus guilt and industry versus inferiority. Positive outcomes during these stages lead to increased levels of self-esteem (Erikson, 1963; Pope, McHale, and Craighead, 1988). Teaching impulsive individuals different ways to slow down and think carefully about their situations helps with self-esteem. Intervention programs help improve these ideas by positively impacting self-concept, body image, and self-esteem (Hay, 2005). Hay goes on to say that mentors need to demonstrate the following concepts in nonthreatening ways: peer pressure, parent relations, self-image, body image, gender bias, media pressure, values, and life goals. By doing this, we empower students, their understanding of the social environment, and the impacts it has on self-esteem and body image.

Childhood Obesity

Self-esteem and body image influence childhood obesity and vice versa (Strauss, 2000; WHO, 1998). In general, low levels of physical activity partnered with increases in high caloric foods can lead to obesity issues (Davison and Lawson, 2006). Obesity causes up to $117 billion a year in health costs (Rutt and Coleman, 2005), which represents about 8% of all health care costs in the United States (Kort, Landley, and Cox, 1998), and is now the seventh leading cause of death in the United States and decreases the life expectancy by up to three years (Rutt and Coleman, 2005). In 2000, up to 300,000 people died due to obesity, making poor diet and physical inactivity the second leading cause of mortality in the United States (Allison et al, 1999; Mokdad et al, 2004). Obesity and increases in body weight positively correlate with all types of cancer (Calle et al, 2003), and are a risk-factor for many medical issues, including depression (Kort, Langley, and Cox, 1998).

These increases in body weight put children at risk for a host of issues (WHO, 1998), since links exist between childhood obesity and being obese as an adult (Troiano and Flegal, 1998). About one-third of obese preschoolers and one-half of school aged children become obese adults (Serdula, et al, 1993). With increases in unhealthy foods in the United States paired with mass media, children grow up in obese environments entirely surrounded with bad habits (NOEIA, 1998; WHO, 1998). The prevalence of overweight children has increased by ten percentage points in the past 50 years, with the largest increases in the past 20 years (Troiano and

Flegal, 1998). Our obesity-promoting culture further exacerbates childhood obesity when children have more opportunities to become sedentary (WHO, 1998). The Center for Disease Control and Prevention stated in 1997 that 35% of the youth did not meet physical activity guidelines and 14% are completely inactive (1997); the numbers have only risen since then. Negative consequences of obesity lead children to complete fewer years of school, thus decreasing abilities to get a job later in life (WHO, 1998). Obese individuals see themselves as ugly and unhappy, which leads them to visit doctors less (Strauss, 2000). Such consistent negativity impacts self-esteem (WHO, 1998; Sheslow et al, 1993), although these negative impacts on self-esteem are not always seen (Strauss, 2000).

For children, proper health habit interventions should target two different time periods in particular: one at about the age four or five and the other at the start of puberty (Dietz and Gortmaker, 2001; WHO, 1998). From four to six, children go through adiposity rebound, where children gain fat and obesity issues begin. Another stage of fat growth occurs prior to puberty. If proper health habits are established before either of these time periods, then we are better able to fight against childhood obesity (Dietz and Gortmaker, 2001). Additionally Troiano and Flegal say that obesity prevention programs need to take a public health perspective that looks at all the issues contributing to obesity, including the built environment (1998). Prevention techniques also need to look at cultural, community, and individuals factors (WHO, 1998). This includes recognizing the relationships between socioeconomic status, race, and obesity (Sobal and Stunkard, 1989; Kumanyika, 1994; WHO, 1998). Three intervention techniques do this: (1) having primary healthcare provide counsel to individuals; (2) decreasing sedentary lifestyles, with a particular focus on decreasing screen time; and (3) increasing physical activity into daily routines (Strauss, 2000). These issues need to particularly focus on young children and only-children, as they have poorer health habits and are influenced more by their families (Klesgas et al, 1991). Finally, prevention efforts need address the roots of problem and not focus on the consequences of the problems. These positive interventions focus on our built environment, while less effective ones change people's diets and physical activity (Gladwell, 2008).

The Built Environment

The built environment, all physical human-made surroundings that provide a place for human activity, influences obesity rates by decreasing walkability and accessibility to healthy

foods (Northridge, Sclar, and Biswas 2003; Papas *et al*, 2007). Furthermore, our built environment changes neighborhood dynamics, which impact self-esteem and body image (Giles-Corti and Donovan, 2002). Individuals with lower socioeconomic status have fewer options for living and are more negatively impacted by their built environments (Rutt and Coleman, 2005). In particular, those of low socioeconomic status live in areas that negatively impact BMI levels, physical activity levels, and in areas that provide less access to nutritional and healthy food choices (Giles-Corti and Donovan, 2002; Northridge, Sclar, and Biswas, 2003; Rutt and Coleman, 2005; Booth, Pinkston, and Poston, 2005; Papas et al, 2007). Accessibility, or the lack thereof, to healthy foods increase obesity rates and negatively impact body image. In particular, Giles-Corti and Donovan state a lack of recreational areas and walking environments causes poor body image and self-esteem, but positive neighborhood environments fight against these problems (2002). Badland and Schofield add that barriers to physical activity in the built environment are due to a lack of time, lack of energy, and being too tired (2006). Low socioeconomic status individuals tend to have fewer walking paths and areas to participate in physical activity (Wilson et al, 2004). Perceptions of safety and increased crime rates dissuade individuals from participating in activities (Davison and Lawson, 2006; Wilson et al, 2004; Papas et al, 2007). Physical inactivity exacerbates problems when the built environment promotes eating unhealthy foods and sedentary lifestyles (Rutt and Coleman, 2005; Papas et al, 2007). The lack of access to healthy foods forces low socioeconomic status individuals to purchase high-caloric foods (Booth, Pinkston, and Poston, 2005), especially when they cost less than healthier foods (Papas et al, 2007). These issues lead to negative body images and self-esteem because families cannot provide adequate health techniques to their children.

All of these issues often harm children more than adults (Davison and Lawson, 2006). For example, children are less active when neighborhoods do not have sidewalks, do not have places to go, when traffic is high, or when their neighborhoods or schools don't have facilities to play on (WHO, 1998; Davison and Lawson, 2006). When the parent has young children poor exercise habits develop and do not change until children become less dependent, which happens at about the age of six (Adamo et al, 2012). This means that, assuming the parent does not have any other children, the child lacks proactive exercise habits until six, which is problematic considering habits are instilled on children by this time (Papas et al, 2007). Moreover, these

children have more psychological and esteem issues because they do not adequately get the benefits of exercising or eating healthy (Davison and Lawson, 2006).

These built environment issues exist because current land use policies do not foster physical activity (Northridge, Sclar, and Biswas, 2003). According to many researchers, improvements to the built environment need to focus on community based participatory research and neighborhood prevention programs (Northridge, Sclar, and Biswas, 2003; Rutt and Coleman, 2005; Papas et al, 2007). Our social environments influence our consumption habits as much as our built environments (Papas et al, 2007). For example, people who do not feel like they fit in with a neighborhood are less likely to participate in physical activities (Giles-Corti and Donovan, 2002). Projects should also focus on housing improvements and openness, as they cause increases in friendliness and self-esteem levels (Northridge, Sclar, and Biswas, 2003). Most importantly, plans should combat issues by demonstrating physical activity as something that occurs throughout the day instead of something that you must work on separately (Badland and Schofield, 2006).

Relation to Gardening

Gardening is used in the built environment to fight against obesity related issues (WHO, 1998), and positively influences self-esteem and body image levels (Wakefield et al, 2007; Hoffman, Knight, and Wallach, 2007; Morgan et al, 2009; Baron, Griffin, and Pretty, 2012; Laaksoharjua, Rappe, and Kaivola, 2012). Community gardens fulfill esteem needs, help improve mood levels, assist in improving mental health, and provide a sense of security (Robinson and Zajicek, 2005; Barton, Griffin, and Pretty, 2012; Wakefield et al, 2007). Children also tend to play longer in garden areas as compared to other types of green spaces (Laaksoharjua, Rappe, and Kaivola, 2012). This improves physical activity habits, attitudes towards fruits and vegetables, consumption habits, and parents' food choices at home (Heim et al, 2011; Lineberger and Zajicek, 2000).

Gardening benefits children in many ways: it helps them expand ideas of self-concept, form new social relationships, help improve school performance, and help children have more positive views toward learning (Phibbs and Relf, 2005; Wakefield et al, 2007; DeMarco, Relf, and McDaniel, 1999; Hoffman, Knight, and Wallach, 2007; Blair, 2009; Robinson and Zajicek,

2005). Lieberman and Hoody also demonstrated that gardening increases test scores and overall grade point average (1998). Healing gardens in particular increase hope and satisfaction levels (Whitehouse et al, 2001). Children's participation in gardens helps promote skills so that children reach new stages of development (Laaksoharjua, Rappe, and Kaivola, 2012). It also gives them senses of pride, ownership, and opportunities to participate in the larger community (Semenza and Krishnasamy, 2007; Block et al, 2011; Laaksoharjua, Rappe, and Kaivola, 2012).

Afterschool Programs

Much like gardening programs, the use of afterschool programs improves body image and self-esteem, while also combatting childhood obesity (Wakefield et al, 2007; Afterschool Alliance, 2000; Coleman et al, 2008; Mozaffarian et al, 2009). Posner and Vandell state four types of afterschool care: formal care (usually in the form of extracurricular activities and afterschool programs), mother care, informal adult supervision, and self-care (1994). Attending formal care helps children adjust with peers, increases academic skills, increases emotional adjustment abilities, and decreases the amount of screen time a child has. All of these aforementioned items actively influence self-esteem in one way or another (Afterschool Alliance, 2000; Pope, McHale, and Craighead, 1988). Decreases in screen time are important to note, as screen time is one of the largest indicators body image and self-esteem problems (Coleman et al, 2008).

Afterschool programs improve academic achievement, decrease screen time by providing safe environments, and provide supervision for children while parents finish work (Halpern, 2000; Posner and Vandell, 1999). Furthermore, afterschool programs targeted at minority and low socioeconomic status help at-risk children combat obesity issues (Mozaffarian et al, 2009). Most importantly, afterschool programs help combat nutritional, exercise, and other problems that influence body image and self-esteem (Afterschool Alliance, 2000; Coleman et al, 2008; Mozaffarian et al, 2009; Branscum and Sharma, 2012). Afterschool programs need to provide some flexibility as too much structure negatively impacts children (NICHD, 2005; Vandell, 1999). Finally, afterschool programs that cooperate with garden initiatives take advantage of the physical and mental benefits that both of these types of programs have on children (Barton, Griffin, and Pretty, 2012).

Creating Landscapes for Families Afterschool Program

The Creating Landscapes for Families Afterschool Program shows how a program in Meadville combines with garden initiatives in order to target the mental and physical benefits of both afterschool and gardening programs. The Creating Landscapes for Families Afterschool Program is part of the Creating Landscapes Learning Center, Inc. and runs throughout the entire year, with a community garden occurring during the summer months. The grassroots organization provides an inclusive environment focusing on the ideas of empowerment, ownership, self-awareness, inclusivity, appreciation, expression, problem-solving, coping, and ability to fully participate and learn healthy habits. The afterschool program also appropriately attends to Hay's ideas of teaching about body image and self-esteem in nonthreatening ways (2005). Creating Landscapes does this by talking about body image and self-esteem issues and teaching lessons about the social environment and eating habits.

The general layout of the afterschool program is as follows: Children tend to arrive to the program at 3:00. Between 3:00 and 3:30 children eat healthy snacks and drink water. The program encourages children to complete homework or positively interact with peers during this time. At 4:00, the children clean up and participate in the welcome circle. Each day the welcome circle starts with a name game and a different child leads this name game each day. Following welcome circle, the children participate in activities that promote the previous goals of empowerment, ownership, self-awareness, and etc. For example, some college students have come in to talk about food miles and the impact on how eating local food is healthier. At 5:00, the program ends with a community dinner. The parents and family often join the children for dinner. During this time, a child talks about the key ingredient of dinner that night, while another child also leads the saying of grace. Following dinner, the family unit as a whole participates in the evening program, which also focuses on similar ideas presented during the afterschool lessons. All components of the program provide opportunities of leadership and empowerment. In particular, the afterschool program creates a social environment that practices the acceptance of individuals, which influences body image (Fletcher, Bonnell, and Sorhaindo, 2011). More importantly it provides an outlet to decrease the amount of screen time, decrease sugary beverage intake (all the students drink water), and provides options for healthy eating, all of which creates a healthy environment (Coleman et al, 2008). Creating Landscapes is also open

and free to anyone, which are two important factors for whether or not people are involved in afterschool programs (Afterschool Alliance, 2000). It also provides access to a warm and welcome built environment, thus fostering proactive body image and self-esteem. Furthermore, it specifically targets low-income families and, by doing so, provides another opportunity to target individuals at an increased risk for body image and self-esteem problems.

Having the ability and resources to control your environment are essential components of empowerment, which influences self-esteem (Diener and Biswas-Diener, 2006). Increases in flexibility foster positive peer and peer-mentor relationships, both of which influence self-esteem, self-confidence, sociability, activity, and energy (Vandell, 1999). Additionally increased flexibility levels are important in regards to body image and self-esteem. Creating Landscapes effectively empowers people by having high expectations for children and giving them plenty of opportunities to lead discussions, show off their talents, and become leaders. For example, a child volunteers to lead the welcome circle and wait for everyone else to be quiet and to start this important part of the day.

More specifically, this afterschool program is able to adequately combat body image and self-esteem issues because it targets these issues in many ways. On top of getting at the root of the problem by providing a positive built environment, it also targets the consequences of these issues by combatting childhood obesity problems. Furthermore, it uses the benefits of gardening and afterschool programs to further improve self-esteem and body image. The Creating Landscapes for Families Program has the potential to represent how this cooperation between all these previously mentioned aspects benefit children in a variety of ways.

Keeping these ideas in mind, my study looked at the body image and self-esteem levels of the children in the program to see how it changed over time. I then compared them with children who do not participate in the program. My hypothesis was that children who actively participated in the after school program will have an increased positive body image and self-esteem than children who do not attend the program. I also hypothesized that participation in this program will result in increased levels of body image and self-esteem over time.

Method:

In order to look at the possible influences that the Creating Landscapes for Families Afterschool Program has on body image and self-esteem, I had children complete a survey. I compared survey results from those who participated in this program and compared the results to children who did not participate in the program. I did this by choosing participants from East End at Second District Elementary School, and adapting many body image and self-esteem assessments in order to create my own. By doing this, I was able to measure these concepts, as well as use two surveys over the course of two months in order to mimic a longitudinal survey.

Participants:

Age and grade level determined the chosen participants. All participants were between the ages of eight and twelve and between third and sixth grade because dieting and physical activity behaviors emerge at this time (Branscum and Sharma, 2012). Furthermore, a poor body image in childhood correlates with major issues (such as obesity, eating disorders and use of steroids) during adolescence and adulthood (Ricciardelli et al, 2003). Finally, body image concerns lead to dieting and weight-loss behaviors at an early age (2006).

In order to target this age and grade level, each participant attended East End at Second District Elementary School. Of the students that go here, 79% receive free/reduced lunches. By choosing this school, I was better able to control the variable of income level, which may impact body-image and self-esteem levels (Twenge and Campbell, 2002). Furthermore, a majority of the children who take part in the Creating Landscapes Afterschool Program fall into this category of low-income. Overall, because I eliminated confounding variables, I designed a cleaner study.

The control group (M= 9.83 years old, SD= 0.96 years) consisted of children who did not participate in the afterschool program. The experimental group (M= 10.14 years old, SD= 0.69 years) consisted of children who participated in the afterschool program. Altogether, the study consisted of 32 children (9.90 years old, SD= 0.91 years). The demographic makeup (shown in Table 2) help show how race or gender may impact my results (Twenge and Campbell, 2002; Twenge and Crocker, 2000).

Table 2

	Gender		Race			
	% Male	% Female	% White	% Black	% Mixed	% Other
Control Group	40	60	80	0	20	0
Experimental Group	28.5	71.4	28.5	14.3	57.1	0
Total	37.5	62.5	68.7	3.1	28.1	0

Participants knew that the purpose of the study looked at body image and self-esteem, but they did not know whether they were in the control or the experimental group. By not telling participants about different groups, I prevented some response biases. Following completion of both surveys, participants were given a debriefing form (Appendix A) that explained the true purpose of the study.

Materials:

The survey (Appendix A) included twenty questions and is an adapted version of a variety of preexisting body image and self-esteem surveys: Objectified Body Consciousness Scale for Youth, Body Investment Scale, Body-Esteem Scale for Adolescents and Adults, Self-Efficacy and Self-Esteem Scale, Modified Rosenberg Self-Esteem Scale, and the Coopersmith Self-Esteem Inventory (McKinley and Hyde, 1996; Orbach et al, 1998; Mendelson, Mendelson and White, 2001; Sherer et al, 1982; Rosenberg, 1965; Coopersmith, 1959). The adapted version allowed me to pull out questions and statements geared towards and understood by children between third and sixth grade, thus making the survey easier to comprehend and understand. The surveys used a Likert-scale, with 1 meaning strongly agree and 5 meaning strongly disagree. The Cronbach's Alpha (α=.806) shows that the survey has internal reliability. The experiment used a 2 x 2 mixed-subjects design. The study's independent variables were participation in the program as well as time between the surveys. The dependent variables were self-esteem and body image.

Procedure:

Due to the nature of looking at body image and self-esteem of children, I filled out a full IRB application (Appendix A) and submitted it on October 29th. It received approval on November 14th. I started my study by contacting the principal of East End at Second District Elementary School, to find out that there were 200 students between third and sixth grade. Following IRB approval, I got his approval to send home permission slips to parents and guardians (Appendix A). I sent out permission slips on November 27th and the students had until December 3rd to return them. At this time, I picked up the signed and returned slips and, depending on whether or not parent's marked participation in the afterschool program, placed the children in the control group or experimental group. Another round of permission slips was sent to the Creating Landscapes for Families Afterschool Program due to a low response rate at the school. Of the 200 sent out, 39 came back, which corresponds to a response rate of 19.5%. Of these, 32 students in total were initially surveyed and this number reduced to 28 when four students were absent for the second survey. This corresponds to a dropout rate of 17.9%. Twenty-one students were in the control group, while seven were in the experimental group. Each condition used non-random sampling to decide the experimental and control groups. The experimental group consisted of those people in the afterschool program, while those not in it was put in the control group. Following this, I contacted the principal to let him know which students would be participating in the survey. Since studies show changes in self-esteem and body image over time (Robins and Trzesniewski, 2005), I distributed two surveys, one on December 11, 2012 and one on February 8, 2013.

The first survey procedure started at 11: 00 and occurred in the library area, and the second survey started at 1:30 and also occurred in the library. Both the experimental and control groups all took the survey together, because the participants did not know that they were in groups. I handed out the survey, and briefly explained that the survey looked at self-esteem and body image. In order for all the students to understand what I meant by that, I described them using my operational definitions of self-esteem and body image: how a person feels about himself/herself describes self-esteem; and how a person views and feels about their physical appearance describes body image. These definitions are taken from a number of studies (Smolak and Thompson, 2009; Pruzinsky and Cash, 2002; and Vasconcellos, 1989; Pope,

McHale, and Craighead, 1988). The instructions for the students are found in the IRB form (Appendix A). Along with these instructions, I used a sample question so that each participant knew how to fill out the survey. The question was "I really like vanilla ice cream" and students were then told what each of the numbers of the Likert-scale meant (1 being strongly agree and 5 being strongly disagree). The instructions also stated to do homework or sit quietly when you finished the survey. Once everyone had completed the survey, each person received a small sticker as a reward for participation. Following completion of both surveys, I handed out and orally debriefed the students orally about the true purpose of the study (the debriefing form can be found in Appendix A.)

Once completed, I recorded all the scores individually. Body image and self-esteem indices were determined by adding up the responses and dividing by 10 (See Appendix B for sample of the scoring procedure), creating two scores for each test: one for body image (the first 10 questions), and one for self-esteem (the last 10 questions.) A code number tracked the participants' scores to note changes in scores between the two surveys. Table 3 shows how I tested my two hypotheses, what data I used for these, and what type of analyses I used. All my analyses used SPSS statistical software. A two-way mixed ANOVA was used for the following reasons: (1) to figure out if there were differences between the groups; (2) to look at different demographic information (i.e. male versus female); (3) to look at the differences in body image and self-esteem levels during both surveys; and (4) to compare the before and after effects of participation in the afterschool program as well. A significance level of $P=0.05$ was used for all statistical analyses.

Table 3

Hypothesis 1:	The experimental group will have increased Body Image (BI) and Self-Esteem (SE) Levels
Data:	Survey 1: Individual* BI + SE Levels in experimental group only Survey 2: Individual* BI + SE Levels in experimental group only
Analysis:	Two-Way Mixed ANOVA
Hypothesis 2:	The control group will have lower BI + SE levels than the experimental group.
Data:	Survey 1: Mean* BI + SE Levels of Experimental and Control Groups Survey 2: Mean* BI + SE Levels of Experimental and Control Groups
Analysis	Two-Way Mixed ANOVA

*See Appendix B for a sample of this scoring procedure

Results:

Overall a total of 32 students were initially surveyed, but this number dropped down to 28, after four people were absent for the second survey. The descriptive characteristics for both surveys can be found in Table 4. Both groups in my survey were not randomly sampled, due to the circumstances of participation in the afterschool program. I did control for other variables though by distributing the surveys to both groups at the same time, and doing the survey at East End at Second District Elementary School, which allowed me to control the location of students. As previously stated, my hypotheses were that those individuals in the Creating Landscapes for Families Afterschool Program would have an increased body image and self-esteem when compared to those who don't, and that increased participation in the program would be correlated with increases in body image and self-esteem. My second survey should show increased body image and self-esteem levels when compared to the first survey.

The most promising results showed that increased participation in the program may positively influence body image and self-esteem, despite not being statistically significant. That is, the interaction between body image and self-esteem over time showed almost significant increases between the first survey and the second survey $F(1, 27) = 3.844$, $p=0.061$. We would not see these same significance factors if they were separate. For example, the control group

shows no change in body image and self-esteem, F (1, 27) = 0.846, p= 0.366. Furthermore, the added variable of the community garden had no impacts on body image and self-esteem, F (1, 27) = 0.331, p= 0.57. These results are demonstrated in Table 5. My results showed that no difference in body image or self-esteem occur between children in the afterschool program and those not in the program, F (1, 27) = 0.452, p= 0.508. Similar results were found for those individuals participating in community gardens, F (1, 27) = 0.261, p= 0.614.

Table 4:

Descriptive Statistics

	Afterschool Program?	Mean*	Std. Deviation	N
Mean Body Image	No	3.84	.85	21
	Yes	4.06	.74	7
	Total	3.90	.82	28
Mean Body Image, 2nd Survey	No	4.26	.71	21
	Yes	4.11	.86	7
	Total	4.22	.73	28
Mean Self-Esteem	No	3.86	.63	21
	Yes	3.76	.47	7
	Total	3.85	.59	28
Mean Self-Esteem, 2nd Survey	No	3.80	.81	21
	Yes	4.19	.58	7
*On a 1 to 5 Scale	Total	3.90	.77	28

Table 5:

Changes Over Time for Afterschool Program

	df	F	p
Body Image	1	0.70	0.41
Self-Esteem	1	1.34	0.26

Discussion:

Results for the first hypothesis were inconclusive, but results for my second study were almost statistically significant. While no difference in body image and self-esteem occurred between the experimental group and the control group, the interaction between body image and self-esteem for the experimental group does change positively over time. Overall, these results are likely due to my experiment being a pilot study with many pros and cons as well as low sample size and response rates.

By comparing the Creating Landscapes Afterschool Program to other afterschool programs, we begin to understand why these results may have occurred. For example, the Creating Landscapes for Families Program actively targets low socioeconomic status children, which effectively helps reduce obesity rates (Mozaffarian et al, 2009). Furthermore, the program also decreases the intake of sugary beverages, which helps to further fight obesity (Giles et al, 2012). Additionally, by providing an afterschool program that actively decreases screen time, increases peer adjustment and relations, increases academic achievement, and increases emotional adjustment, the Creating Landscapes Afterschool Program actively influences self-esteem and body image (America After 3PM, 2000; Coleman et al, 2008; Mozaffarian et al, 2009; Branscum and Sharma, 2012). These impacts all demonstrate on how the afterschool program impacts body image and self-esteem over time.

My project serves as a useful pilot study, a small-scale test used to help prepare for a main study (Kim, 2011), by developing a specific set of methods and working ideas. Van Teiglingen and Hundley expand upon this idea by demonstrating that pilot studies are used in two cases (2001): (1) in the first case, a pilot study is a precursor to further main studies; (2) in the other case, they are using specific pre-testing data of a research instrument. My study is the case of the former, because I looked at the pros and cons of the study so that future studies could look at the unique relationships between afterschool programs, body image, and self-esteem. Altogether, pilot studies are used for many reasons: (1) to frame research questions; (2) to gather background and cultural information; (3) to help measure and refine the research instruments used; (4) to increase the success rates of main studies; and (5) to convince funding bodies and stakeholders that a full-fledge study is worth looking into and being funded (Baptista *et al*, 2010; Kim, 2011; van Teiglingen and Hundley, 2001).

My results might be inconclusive because cleaner studies are needed in order to accurately represent different samples of students, as well as increasing the methodology. My study's limitations included a low sample size and a low response rate. By looking at different age groups or the school district as a whole, I would increase sample size. In order to increase response rates, I could provide more incentive for families or provide a more brief and eye-catching permission slip. Children also had problems filling out the Likert-type scale. Most of the younger children did not understand what the number "2" or "4" meant on the scale, as demonstrated by the lack of these answers in the surveys. Instead scales like the visual analogue scale should be used (Brumfitt & Sheeran, 1999). By looking at these limitations, future studies will more accurately measure body image and self-esteem.

A follow up study should continue to look at the impacts of body image and self-esteem over time. Instead of focusing on this preadolescent age, the study could look at children of all ages, in order to further understand how the afterschool program impacts these ideas. An increased look at the comparison of body image and self-esteem into the teenage years could be used to see if the impacts of the Creating Landscapes for Families Afterschool Program continue to have effect during this time. These longitudinal impacts could better measure how the program changes from start to end. More importantly, a future study should look at longitudinal impacts while also providing a critique of the year round program, so that it could further focus on body image and self-esteem. The follow up study should also compare different afterschool programs for the changes of body image and self-esteem to make sure that these findings were unique for this program and not general impacts of all afterschool programs in the Meadville area. Future studies should also control for income by explicitly asking questions relating to free and reduced lunches, which often indicates low income families (Patterson, Kupersmidt, and Vaden, 1990). Overall, a more in-depth focus on the Creating Landscapes for Families Afterschool Program and its' impacts on body image and self-esteem are needed.

More specifically, a future senior comprehensive project could look at two ideas mentioned in the previous paragraph: (1) looking at the impacts of body image and self-esteem across different afterschool programs and extracurricular activities; or (2) focusing on a wider age range, with the stated changes in the method section. These two ideas are specifically noted because they are both feasibly projects that would have little to no cost for the afterschool

program, but continues to look at the impacts. Furthermore, these projects could be done within the next year, and thus provide more clarification and broader impacts the findings from this study.

My study's findings provide many positive impacts for Creating Landscapes and other programs like it for a variety of reasons. First off, these findings suggest that the Creating Landscapes program combats body image and self-esteem problems in a high-risk area. I deem Meadville a high risk area due to its increased obesity levels (CDC, 2011), which has shown to negatively impact body image and self-esteem (Strauss, 2000; WHO, 1998). Furthermore, my findings demonstrate that body image and self-esteem can be changed in low-income areas. As previously stated, low-income families have an increased risk for body image and self-esteem problems (Giles-Corti and Donovan, 2002; Rutt and Coleman, 2005). By combatting these problems, the afterschool program reduces the negative behaviors (such as drug abuse and teenage pregnancy) that would otherwise occur for individuals with low self-esteem and body image (Smelser, 1989). Negative behaviors often occur during adolescence (Ricciardelli et al, 2003), and by combatting body image and self-esteem problems before they enter this time period, individuals have more positive experiences in adolescence. Finally, my study could also help bring in other stakeholders to Creating Landscapes that want to further focus on the unique concepts of body image and self-esteem. A sample one page overview of my data and findings is found in Appendix C, and would be used to convince stakeholders to invest in the Creating Landscapes Program because of its possibly positive impacts on body image and self-esteem, and its ability to combat these issues as low-income and at risk children enter puberty.

In conclusion, my study looked at the unique impacts that this program might have on body image and self-esteem. Increased participation in the program could lead to increases in body image and self-esteem. My study brought up a number of future questions that need addressed. Many studies should continue to look at the complicated relationship between body image, self-esteem, and afterschool programs.

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Appendix A: IRB Form (includes consent and debriefing forms)

Allegheny College IRB

Proposal Submission Form

General Instructions

2. Once the form has been completed, covert the file to a PDF document.

3. The PDF should be sent to the Chair of the IRB.

Section 1: REQUEST FOR IRB REVIEW

Part 1 Contact Persons

Date submitted:

Principal Investigator name	Email	Box	Telephone	Address/Office
Casey Branthoover	branthc	485	814-706-1948	520 N. Main Street
If the PI is a student, provide information for the primary faculty supervisor				
Kate Darby	kdarby	E	814-332-3004	206 Carr Hall

Part 2 Type of Research/OHPR Certification

Please check all that apply. The research is

_____ faculty research

__X__ senior project research Department _Environmental Science_

_____ course research. Department and number _____

_____ administration research

_____ other (please specify)

Please complete the following information on all persons involved in the research including the PI, faculty supervisor, and any research collaborators/assistants. For status, please indicate whether the person is faculty (F), student (S), administration (A), or staff (ST). Before any project can be approved, all persons involved in the design, data collection, and/or analysis must have OHRP (Office of Human Research Protection) certification.

		OHRP Certification		
Name	Status	Yes	No	Certification Date
Casey Branthoover	S	X		4/01/12
Elizabeth Ozorak	F	X		9/7/11
Kate Darby	F	X		8/2/11 (Social & Behavioral Research - Basic Course) and 8/3/11 (Social and Behavioral Responsible Conduct of Research Course)

Part 3 Review Request

An expedited review can be granted if the risk to participants is minimal (no more than the risks associated with normal, everyday behavior) and/or the review is of a continuing project which was previously approved. The research cannot involve protected classes of participants (e.g., fetuses, neonates, pregnant women, children, the elderly, prisoners, the physically or developmentally challenged, or other at risk populations). If these conditions are not met, please request a full review.

Type of review requested

Expedited _____

Full _____X_____

Is the research a continuation of a previously reviewed and approved project? _____Yes _X__ No

Is the research funded by either external or Allegheny College research grants? _____Yes _X_ No

If yes, please indicate the type of grant received and its source.

Part 4 Rationale

Title of the project : _Creating Landscapes for Families Program: Impacts on Body Image and Self-Esteem

A brief (no more than 140 words) statement of the rationale for the project

With increasing pressures on children to act and look a certain way, body image and self-esteem problems are on the rise in the United States. This is further exacerbated for low-income families and children who are overweight or obese. My project is going to look at how one after-school program may (or may not) have positive impacts on providing a more positive outlook on body image and self-esteem levels of children.

Part 5 Participant Information

Participants will be

	Yes	No
Allegheny College students		X
Allegheny College employees (faculty, administration, staff, contract employees)		X
Meadville area residents	X	
Persons outside the Meadville area (please identify)		X

Please note that use of any of the following populations may require additional information and protections under § 45, Title 46, subsections B, C, or D.

Will any of the following be used in the research? No ____ Yes _X_ if yes, please indicate

Fetuses ____ Neonates ____ Pregnant women ____ Children _X_ Prisoners ____

Elderly _____ Physically or developmentally challenged _____

Other at risk populations _____ (please identify)

Participants will be recruited at East End at Second District Elementary School; they will be determined by those who return the permission slips as well as whether the child qualifies for free/reduced lunches. Because a majority of the students in the Creating Landscapes Afterschool Program qualify for this, it is important to control for this.

Participants will be recruited by talking to teachers at Second District Elementary School as well as in the Creating Landscapes Program. This program is a social venue that allows families to participate in programs that help people grow by feeling understood and valued, and it occurs at the Unitarian Church in Meadville. Participants will be children between ages 8-12, which correspond to grades 3-6. In the school districts, participation will occur through teachers who voluntarily allow me into their classroom. Children in the Creating Landscapes Program will be chosen by those who are willing to participate and come to the after-school program on a regular basis.

Will participants receive any form of compensation for their participation? Yes __X__ No _____

If yes, indicate the compensation provided.

Compensation for the project will be in the form of a healthy snack (i.e. apple chunks) or in the form of a small material award, such as a pencil.

If participants are recruited from existing organizations, groups, schools, classes, etc., please include a letter from the relevant group/organization granting permission to recruit participants. The letter should be attached to section 4 (Additional Research Materials) at the end of this form.

See Attachment Below

Part 6 Methods/Procedures

Describe the methods/procedures to be used to collect data.

I will be conducting a written survey consisting of 20 questions. Ten of the questions will pertain to self-esteem, while the remaining ten pertain to body image. All of these questions have been directly derived from the following surveys: the Objectified Body Consciousness Scale for Youth, Body Investment Scale, Body-Esteem Scale for Adolescents and Adults, Self-Efficacy and Self-Esteem Scale, Modified Rosenberg Self-Esteem Scale, and the Coopersmith Self-Esteem Inventory (McKinley and Hyde, 1996; Orbach *et al*, 1998; Mendelson, Mendelson and White, 2001; Sherer *et al*, 1982; Rosenberg, 1965; Coopersmith, 1959). I will be conducting two variations of the survey in order to measure before and after benefits of the program. The first will be distributed at the start of the program at the end of October or early November. The second will be mid-January. This technique will be used in order to show how body image and self-esteem change over the course of time. The survey itself will take between 10 and 20 minutes. I will survey approximately 60 students, including about 30 Creating Landscapes students and 30 students who do not participate in Creating Landscapes. I will be administering the written survey to each of the students in a small room at East End at Second District Elementary School. Since most of the participants in Creating Landscapes also attend this school, I will be able to administer the surveys for both groups at the elementary school.

Minimal risk is defined as risk no greater than that one would encounter in everyday activities. Do the research procedures involve only minimal risk to participants?

Yes ___X_ No _____

Please attach copies of any materials (i.e., instructions to participants, required permission letters, etc.) that will be used in the research. QuestionnaireNote: If using established and published tests/questionnaires, they do not need to be attached, but please provide a reference citation for each.

Survey with Instructions to Participants: ***See Attachment #1 Below***

Permission Slips for Parents: ***See Attachment #2 Below***

Debriefing Form: ***See Attachment #3 Below***

Part 7 Data Anonymity

Data are anonymous if there is no foreseeable way that individual participants can be linked to their responses. For example, there can be no record kept of the participants' names if anonymity is to be maintained. In studies requiring linkages between responses collected at different times, coding systems that do not require the use of participant names to link responses must be used.

If there is anonymity in responses, please describe the procedures used to ensure anonymity.

If a waiver of anonymity is requested, please provide a rationale for the request

I am requesting a waiver regarding anonymity for my project due to how I am going to be measuring body image and self-esteem levels. Because these things change over time, I will be linking individuals' responses from the first survey to their responses in the second survey. In order to do so I need to code the surveys, as a way to link the first survey to the last survey. The code sheet linking student names with the ID number appearing on the survey will be held by Professor Kate Darby and I will only have control of it on the days I distribute the survey. The code sheet will be locked in a file drawer in her office, 206 Carr Hall. Following completion of my final data collection in January, the code sheet will be destroyed within a week.

Part 8

Please remember that approval to conduct research is based on the information/materials submitted with this application. A change in procedure, materials, or information approved by the IRB requires approval by the IRB. Please contact the chair of the IRB for advice on what would be required.

Section 2: INFORMED CONSENT

Research participants have the right to be informed of any aspect of the research that might reasonably affect their decision to participate in the research. There is information mandated under CFR 45, Part 46, § 46.116 as part of informed consent. At the same time, there are exceptions to these mandates.

Part 1 Documentation

Participants (or legal representatives) can be given a written informed consent document containing the information in Part 2 below or a short form indicating that the information has been provided verbally when there is a witness to that verbal statement. What is to be stated verbally must be approved by the IRB and include the elements of a written consent form.

Does the proposed research use a written ____X____ or verbal _____ informed consent procedure?

Part 2 Elements of Informed Consent

The table below identifies the major elements of informed consent. Please review them carefully and then proceed to Part 3.

Elements of Informed Consent 1.
a. statement that the project is research b. a statement of the rationale for the research c. a description of the length of participation d. a description of the methods/procedures to be used e. identification of experimental procedures
2. A description of any foreseeable risks or discomfort
3. A statement of the benefits of the research to the participants or others. Note: Compensation is not seen as a benefit.
4. A description of alternative procedures, if available or advantageous to participants.

5. A statement about the extent to which information provided by participants will be kept confidential.
6. If more than minimal risk is involved, an explanation of available treatments should injury occur and where additional information can be obtained.
7. Contact information for both the researcher (and research supervisor if the researcher is a student) along with the chair of the IRB in case there is injury or a question concerning participant rights.
8. A statement that participation is voluntary and that there can be no consequences for either failure to participate or termination of participation.

Please note that § 46.116 also identifies other aspects of informed consent that may be required depending on circumstances.

Part 3 Modification of Elements of Informed Consent

CFR 45 allows IRBs to modify or delete the elements of informed consent listed above if all of the following conditions are met.

1. The research involves no more than minimal risk.

2. Participant rights are not altered by a waiver/modification.

3. The research could not be practicably conducted without the modification.

4. The participants are fully debriefed, including an explanation for the modification, following participation whenever possible.

After reviewing the elements of an informed consent form, please check whether you are requesting a modification of any of those elements

	Modification Requested	
Elements of Informed Consent 1.	Yes	No
a. statement that the project is research		X
b. a statement of the rationale for the research		X
c. a description of the length of participation		X
d. a description of the methods/procedures to be used		X
e. identification of experimental procedures		X
2. A description of any foreseeable risks or discomfort		X
3. A statement of the benefits of the research to the participants or others. Note: Compensation is not seen as a benefit.		X
4. A description of alternative procedures, if available or advantageous to participants.		X
5. A statement about the extent to which information provided by participants will be kept confidential.		X

6. If more than minimal risk is involved, an explanation of available treatments should injury occur and where additional information can be obtained.		X
7. Contact information for both the researcher (and research supervisor if the researcher is a student) along with the chair of the IRB in case there is injury or a question concerning participant rights.		X
8. A statement that participation is voluntary and that there can be no consequences for either failure to participate or termination of participation.		X

If a waiver of any of the elements of informed consent has been requested, please provide a rationale below.

The informed consent form to be used in the research should be provided below. The informed consent statement can be written in narrative form as long as all the elements listed above are included (unless a modification is requested).

PARENTAL CONSENT FORM FOR STUDY PARTICIPATION

Evaluating Body Image and Self-Esteem Levels in Children

Dear Parent:

I am an undergraduate student under the direction of Dr. Kate Darby in the Environmental Science Department and Dr. Elizabeth Ozorak of the Psychology Department at Allegheny College. I am conducting a research study to evaluate the self-esteem and body image of children. Self-esteem is the way an individual feels about themselves, while body image refers to how people view and feel about their body. I am comparing the body image and self-esteem

levels of children who participate in the Creating Landscapes for Families Program with children who do not participate in it.

I am inviting your child's participation, which will involve completing two surveys over the course of three months. Each survey will take at least twenty minutes to complete. If you choose not to have your child participate or withdraw your child from the study at any time, it will not affect your child's grade. Likewise, if your child chooses not to participate or to withdraw from the study at any time, there will be no penalty. The results of the research study may be published, but your child's name will not be used.

There may not be any direct benefit to your child. There are no foreseeable risks or discomforts to your child's participation.

Your child's responses will be kept confidential. Because I am measuring body image and self-esteem levels over time, each child will be coded with a number. The code sheet linking your child's ID number with his or her name will be kept in a locked file drawer and in a password-protected computer file. After the second survey, this code sheet will be destroyed. At no point will individual responses be connected to your child. The results of this study may be used in reports, presentations, or publications but your child's name will not be known.

If you have any questions concerning the research study or your child's participation in this study, please call Dr. Darby at (814) 332-3004 or Dr. Ozorak at (814) 332-2394.

Sincerely,

Casey Branthoover

By signing below, you are giving consent for your child _____ (Child's name) to participate in the above study.

_____ _____ _____

Signature Printed Name Date

If you have any questions about you or your child's rights as a subject/participant in this research, or if you feel you or your child have been placed at risk, you can contact the Chair of the Institutional Review Board at (814) 332-3341.

Part 4 Complete Waiver of Informed Consent

CFR 46, part 46 § 46.117, paragraph (c) allows for a complete waiver of informed consent if either condition below is met.

1. When the signed informed consent form is the only document linking a participant to the research and when the linkage would constitute a breach of confidentiality, a participant should be given a choice about whether a signed informed consent form is desired.

2. There is minimal risk and the procedures would not require consent outside the research context.

After reviewing this material, is a waiver of the informed consent requirement being requested?

X_ No ____ Yes

If a waiver is being requested, please provide a rationale for the waiver request.

Part 5 Record Keeping

OHRP requires that each participant receive a signed copy of the informed consent statement. In addition, the researcher or faculty supervisor, if the researcher is a student, is required to retain a signed and dated copy of informed consent statements for each participant in the research in a secure location for a period of three years. These documents must be available to authorized individuals. If having a secure location is difficult, please contact the chair of the IRB for assistance.

PI (or faculty supervisor) maintaining records

Kate J. Darby

Email: ____kdarby@allegheny.edu_____ Telephone: __x3004___

_____

Location of informed consent forms (building, room number and contact information if different from the PI or faculty supervisor if the PI is a student).

206 Carr Hall

Section 3: Debriefing

In many cases, the major benefit research participants receive is their contribution to the acquisition of new knowledge. Often, the only way they will fully understand their contribution to the research process is through the debriefing following experimental participation. That is why the debriefing is so very important. Its importance is doubled if there has been any modification/waiver of informed consent since this is the opportunity to inform participants of the modification/waiver and the justification for the modification/waiver. For the debriefing to be valuable, it must be clearly written at a level appropriate to the participants. Scientific terms should be avoided when possible and any necessary jargon defined.

As a general principle, researchers are expected to fully inform their participants about the research following their participation. A complete debriefing should contain the following components. There are, however, circumstances when either the debriefing or specific elements of a debriefing may be waived. Please complete the following, indicating whether a waiver is being requested.

	Waiver Requested?	
	Yes	No
A. A request to waive all components of a debriefing		X
B. Components of a Complete Debriefing		X
1. An explanation of the rationale for the research and the procedures used.		X
2. An explanation and justification of any necessary deceptions used in the research.		X
3. A statement of the research hypotheses.		X
4. An offer to provide participants with a copy of the findings of the research when completed with appropriate contact information to request the results		X
5. Contact information for the principal investigator, the research		X

supervisor (if the PI is a student), and the chair of the IRB.		
6. Sources the participants might consult if they desired additional information on the topic.		X
7. An opportunity to ask any questions and/or have concerns addressed		X

Please provide a rationale for a waiver from debriefing or for a waiver of any component of the debriefing

In general, it is expected that the debriefing will be given both orally and in writing immediately following data collection, although it is recognized that exceptions to that goal may be required.

	Yes	No
1. Will a debriefing be delivered following data collection?	X	
2. Will the debriefing be delivered orally?	X	
3. Will a written debriefing be provided?	X	

If the response was No to any question, please provide an explanation.

Please provide a copy of the debriefing statement below.

Include debriefing statement here

Debriefing Form

For the Study entitled:

"Evaluating Body Image and Self-Esteem Levels in Children"

Dear Participant,

During this study, you were asked to complete two surveys revolving around body image and self-esteem. You were told that the purpose of the study was to look at your body image and self-esteem levels. The actual purpose of the study was to look at how these change over time and compare it with children who participate in the Creating Landscapes for Families afterschool program. My hypothesis is that participation in the Creating Landscapes for Families afterschool program will cause an increase in self-esteem levels and body image over time.

We did not tell you everything about the purpose of the study because telling you these things would affect how you answer the questions. In order to get accurate measurements of body image and self-esteem, we did not tell you that comparisons would occur. This could inadvertently lead you to answering questions more positively, thus impacting scores.

You are reminded that your original consent document included the following information: your participation was voluntary and that you could stop the survey at any time. If you have any concerns about your participation or the data you provided in light of this disclosure, please discuss this with us. We will be happy to provide any information we can to help answer questions you have about this study.

If you are interested in the findings, you can e-mail me at branthc@allegheny.edu or call me at (814)706-1948. For information on the body image and self-esteem, you can go to the following website: http://www.pamf.org/parents/general/selfesteem.html. You can also find more information by checking out *Society and the Adolescent Self-Image*, by Morris Rosenberg.

If you have questions about your participation in the study, please contact me at (814) 706-1948, or my faculty advisors, Dr. Darby at (814) 332- 3004 or Dr. Ozorak at (814) 332-2394.

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Institutional Review Board at (814) 332-3341.

If you have experiences distress as a result of your participation in this study, a referral list of mental health providers is attached to this document for your use. (Please remember that any cost in seeking medical assistance is at your own expense.)

Please again accept our appreciation for your participation in this study.

Casey Branthoover October 9, 2012

List of Mental Health Providers:

Meadville Medical Center - Mental Health Services Inpatient, Facility

1034 Grove Street

Meadville, PA 16335

Phone: (814) 333-5800

Section 4: Additional Research Materials

1. Please attach copies of any materials (i.e., instructions to participants, required permission letters, etc.) that will be used in the research.

2. If published/validated questionnaires/surveys are used in the research, provide a bibliographic reference for each questionnaire/survey. For validated/published questionnaires/surveys there is no requirement that a copy of the instrument be attached.

3. If a questionnaire/survey was developed for this study or project, please paste a copy of the questionnaire/survey below.

ATTACHMENT #1: SURVEY ASSESSMENT

I'm going deliver the following oral instructions: "I'm going to give you this survey based on how you feel about yourself and how you feel about your body. The survey should take between 10 and 20 minutes. Try to fill out as much of it as possible. Remember that you can stop at any time. If you have any questions or need help reading or understanding a question, please let me know. When you are completed, quietly raise your hand and I will collect your paper. Until everyone else is finished, you can work on some homework, read a book, or sit quietly."

Body Image and Self-Esteem Survey Participant Code#: _____

Age: _____

Grade Level: _____

Gender: Boy Girl

Race: White Black Mixed Other

Have you participated in the Creating Landscapes for Families Afterschool Program? Yes No

If you circled yes, how many years, including this year, have you participated in the program?

Have you participated in work for the community garden over the summer? Yes No

If you circled yes, how many years have you participated in the community garden?

Please respond to the following sentences by circling a number between 1 and 5. 1 means that you strongly disagree with the statement, and 5 means that you strongly agree with the statement. (3 is unsure. Questions:

	Strongly Agree		Unsure		Strongly Disagree
	1	2	3	4	5
I feel like I must be a bad person when I don't look as good as I could	1	2	3	4	5
I often worry about how I look to other people.	1	2	3	4	5
I often compare how I look with how other people look.	1	2	3	4	5
I am satisfied with my appearance	1	2	3	4	5
I hate my body.	1	2	3	4	5
I feel comfortable with my body	1	2	3	4	5
My looks upset me	1	2	3	4	5
I like what I look like in pictures	1	2	3	4	5
I wish I looked better	1	2	3	4	5
I am proud of my body	1	2	3	4	5
I have no confidence in myself	1	2	3	4	5
If I could, I'd change many aspects of myself	1	2	3	4	5
I'm strong and healthy as most people my age	1	2	3	4	5
I feel to be important as the most people of my age.	1	2	3	4	5
I have an impression that teachers and classmates treat me like an outsider	1	2	3	4	5
Oftentimes, I feel unhappy	1	2	3	4	5

I am a lot of fun to be with	1	2	3	4	5
I am popular with kids my age	1	2	3	4	5
Kids usually follow my ideas	1	2	3	4	5
It is pretty tough to be me	1	2	3	4	5

Attachment #2: Parental Permission Slip Form

Evaluating Body Image and Self-Esteem Levels in Children

Dear Parent:

I am an undergraduate student under the direction of Dr. Kate Darby in the Environmental Science Department and Dr. Elizabeth Ozorak of the Psychology Department at Allegheny College. I am conducting a research study to evaluate the self-esteem and body image of children. Self-esteem is the way an individual feels about themselves, while body image refers to how people view and feel about their body. I am comparing the body image and self-esteem levels of children who participate in the Creating Landscapes for Families Program with children who do not participate in it.

I am inviting your child's participation, which will involve completing two surveys over the course of three months. Each survey will take at least twenty minutes to complete. If you choose not to have your child participate or withdraw your child from the study at any time, it will not affect your child's grade. Likewise, if your child chooses not to participate or to withdraw from the study at any time, there will be no penalty. The results of the research study may be published, but your child's name will not be used.

There may not be any direct benefit to your child. There are no foreseeable risks or discomforts to your child's participation.

Your child's responses will be kept confidential. Because I am measuring body image and self-esteem levels over time, each child will be coded with a number. The code sheet linking your child's ID number with his or her name will be kept in a locked file drawer and in a password-protected computer file. After the second survey, this code sheet will be destroyed. At no point will individual responses be connected to your child. The results of this study may be used in reports, presentations, or publications but your child's name will not be known.

If you have any questions concerning the research study or your child's participation in this study, please call Dr. Darby at (814) 332-3004 or Dr. Ozorak at (814) 332-2394.

Sincerely,

Casey Branthoover

By signing below, you are giving consent for your child _____ (Child's name) to participate in the above study.

_____ _____ _____

Signature Printed Name Date

If you have any questions about you or your child's rights as a subject/participant in this research, or if you feel you or your child have been placed at risk, you can contact the Chair of the Institutional Review Board at (814) 332-3341.

Attachment #3: Child Assent Form

Evaluating Body Image and Self-Esteem Levels in Children

I have been informed that my parent/guardian has given permission for me to participate in a research study concerning questions revolving around my body image and self-esteem levels. Self-esteem is the way an individual feels about themselves, while body image refers to how people view and feel about their body.

I will be asked to complete this survey as well as two follow-up surveys regarding body image and self-esteem levels. Each survey will last up to twenty minutes long and consists of twenty questions.

I am inviting you to participate in two surveys, one that will happen now, and one that will happen a few months from now. If you choose not to participate or to stop at any time, it will not affect you in any way. The results of my research will be published, but your name will not be used in any way.

There is no direct benefit to you. There are also no foreseeable risks.

Your responses to the survey will be kept secret. The only thing connecting your name to the answers is a code sheet. This will have an ID number with your name. It will be locked in a file drawer. Following the second survey, the code sheet will be destroyed. Your name will not be used in a report, but the results of this study may be used in reports, presentations, or publications.

My participation in this project is voluntary and I have been told that I may stop my participation in this study at any time. If I choose not to participate, it will not affect my grade in any way.

_____ _____

Signature Printed Name

_____

Date

Appendix B: Scoring Procedure

Sample Questionnaire with answered questions (shown as bolded and underlined):

	Strongly Agree		Unsure		Strongly Disagree
Body Image Questions					
I feel like I must be a bad person when I don't look as good as I could	1	2	3	4	**5**
I often worry about how I look to other people	1	2	3	**4**	5
I often compare how I look with how other people look	1	**2**	3	4	5
*I am satisfied with my appearance	1	2	3	**4**	5
I hate my body	1	2	3	4	**5**
*I feel comfortable with my body	**1**	2	3	4	5
My looks upset me	1	2	3	**4**	5
*I like what I look like in pictures	1	**2**	3	4	5
I wish I looked better	1	**2**	3	4	5
*I am proud of my body	1	**2**	3	4	5
Self-Esteem Questions					
I have no confidence in myself	1	2	3	4	**5**

If I could, I'd change many aspects of myself	1	2	3	**4**	5
*I'm strong and healthy as most people my age	1	**2**	3	4	5
*I feel to be important as most people of my age	1	**2**	3	4	5
I have an impression that teachers and classmates treat me like an outsider	1	2	3	**4**	5
Oftentimes, I feel unhappy	1	2	3	**4**	5
*I am a lot of fun to be with	**1**	2	3	4	5
*I am popular with kids my age	**1**	2	3	4	5
*Kids usually follow my ideas	1	**2**	3	4	5
It is pretty tough to be me	1	2	3	4	**5**

To determine a composite body image score, I first reverse coded the asterisked answers and then summed up the responses. That is, a 1 will change to a 5, a 2 to a 4, a 4 to a 2, and a 5 to a 1 (3s stay the same). For this sample, the person answered with the following numbers: 5,4,2,4,5,1,4,2,2,2 but once I accounted for reverse coding, I would add: 5+4+2+2+5+5+4+4+2+4. This would give you a total of 37, which I would then divide by 10 in order to get the mean body image. In this case the mean body image would be 3.7. The closer the number is to 5, the higher the body image. The procedure is the same for self-esteem. For this example, I would have 5,4,2,2,4,4,1,1,2,5 as the raw numbers. The numbers I would add are: 5+4+4+4+4+4+5+5+4+5. The total would be 44, for a mean self-esteem of 4.4.

Appendix C: One Page Summary of Findings

In 2012-2013, Allegheny College student Casey Branthoover conducted a study of 28 children in grades three through six in order to figure out how self-esteem and body image levels change over time and to measure the impacts of the Creating Landscapes for Families Afterschool Program. Body image and self-esteem impact how well children adjust during puberty and the teenage years. All of the students attended East End at Second District Elementary School in order to target these children prior to their teenage years. Of those surveyed, seven participated in the Creating Landscapes for Families Afterschool Program and the other twenty-one did not. Students were surveyed once in December and once in February, in order to demonstrate possible long term impacts of the program. Following the two surveys, two hypotheses were evaluated. The first was that those in the afterschool program would have higher body image and self-esteem levels compared to those not in the program. Results for this were not conclusive. The second hypothesis was that increased participation in the program will cause increases in both body image and self-esteem. These results were conclusive, meaning increased participation in the afterschool program positively impacts body image and self-esteem. Further research is needed in order to demonstrate longer longitudinal impacts and differences, but the pilot study conducted shows promise for the positive impacts that body image and self-esteem has on children. The Creating Landscapes for Families Afterschool Program needs to continue to foster these by continuing to have an increased focus on those things they already do well. It can do this: by keeping up its healthy ideals; have lessons that teach leadership and individuality; accept all types of individuals; and continually keep the program free and easy to access. The chart below demonstrates how body image and self-esteem increased over time for individuals participating in the program. Self-esteem levels changed drastically, while body image increased slightly. Both of these numbers would likely continue to increase over time as participation in the program increases.

