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Preliminary evaluation of a girls' empowerment program: the effects of dance on self-esteem and body-image

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PRELIMINARY EVALUATION OF A GIRLS' EMPOWERMENT PROGRAM:

THE EFFECTS OF DANCE ON SELF-ESTEEM AND BODY-IMAGE

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ABSTRACT

Adolescence is a time of numerous physical, emotional, and cognitive changes. Adolescent girls often experience a decline in body-image and/or self-esteem which can negatively impact mental health. While programs exist that are designed to address these concerns, empirical support for these programs is minimal and has often failed to demonstrate significant findings. This author evaluated a community-based empowerment and dance program for adolescent girls to evaluate the impact of participation on self-esteem and body-image. Pre-test and post-test data was collected from 5 adolescent girls using the Rosenberg Self-Esteem Scale (RSE) and the Body Esteem Scale for Adolescents and Adults (BESAA). Data analysis revealed a statistically significant increase in overall body-image and weight satisfaction at post-test. Measures of self-esteem and two additional body-image subscales revealed moderate-to-large effect sizes; however, the results failed to have sufficient power due to the small sample size. Analysis of archival qualitative data, collected by the same program during two previous academic years, revealed overarching themes relating to social relationships, confidence, self-expression, body-image, self-esteem and enjoyment of the program, indicating that participants reported making gains in these areas. When considering the negative consequences associated with poor body-image and low self-esteem, programs that focus on improving self-esteem and body-image could have long-term implications for the well-being of numerous youth. These results suggest that further research should be conducted to substantiate these findings and build empirical support for similar community-based programs.

Introduction

The period of adolescence is a time of many developmental changes, including physical, social, and cognitive growth. Managing the challenges faced during adolescence are key in navigating the process of becoming a well-functioning adult. In addition, several psychological disorders have an age of onset during adolescent and young adulthood, unfortunately, many individuals progress to serious and/or chronic levels of pathology prior to seeking or receiving treatment. Rather than focusing resources solely on individuals who are experiencing distress or impairment due to a major psychological disorder, a preventative model seeks to identify areas for growth and improvement in overall psychological health and well-being prior to the onset of psychological disorder.

In recent years, schools have initiated programs focused on prevention for youth and adolescents. These programs have focused on a variety of areas such as alcohol and substance use, delinquent behavior, and academic success as well as personal factors such as self-esteem, body-image, confidence, and overall well-being. In addition to the variety of school-based programs, community organizations have implemented adolescent outreach programs with the aim of improving the well-being of local area youth. Of particular interest to this author are dance-based programs, such as one that is offered at a community-based organization[1] in Southern California. This program offers a free, after-school dance class for adolescent girls in the sixth, seventh, and eighth grades. Classes meet weekly for 2 hours throughout the school year, and according to the agency,

[1] The agency has requested that their identity remain anonymous. Therefore, the specific name of organization and related programs have been omitted, and descriptive acronyms have been used in place of the specific program names.

participation in their programs can decrease delinquent behavior; increase academic, social, and personal competencies; and improve the girls' attitudes about themselves and others. Although programs such as the girls dance class (GDC) offer anecdotal evidence for the benefits the youth receive from participation, there is a scarcity of research investigating the effects of participation in community-based dance programs on adolescent's mental health and overall well-being.

Although these programs receive local support and offer informal support in the form of parental and participant feedback, a review of the literature did not reveal any scientific investigations on the effects of similar community dance programs on adolescent well-being. Research studies focusing on the effects of dance participation were typically investigations of ballet, and often centered on negative factors such as an increased risk of negative body image and eating disorders (Radell, Adame, & Cole, 2002; Ravaldi et al., 2006; Slater & Tiggemann, 2002). Other studies focused on the implementation of exercise programs with children, adolescents, or adults, although these were often conducted in a school-based setting with the goal of increasing physical activity (Bush, Laberge, & Laforest, 2010; Kirkcaldy, Shephard, & Siefen, 2002; Koff & Bauman, 1997; McCabe, Ricciardelli, & Salmon, 2006). Two research projects were identified that focused on community-based dance programs for adolescents, however, the results from these studies centered on the implementation and/or evaluation process of the program as a whole, rather than an evaluation of the effects on the youth for participating in the program (Beaulac, Olavarria, & Kristjansson, 2010; Coppens, Page, & Thou, 2006).

Based on the limited amount of available empirical evidence, a thorough investigation of the existing literature is warranted to better understand what benefits, if any, adolescents experience as a result of participating in community-based dance programs. The following section will discuss relevant existing literature including: how adolescent development relates to psychological well-being and/or challenges, the impact of exercise and/or dance programs on adolescent well-being, and information regarding the success and challenges of prevention and intervention programs as it relates to work with adolescents and community dance programs. By gaining an understanding of each of these topics, hypotheses can be generated regarding the potential impact of participation in a community-based dance program for adolescents.

Adolescence

Adolescent development. Adolescence is a time of immense adjustment, when children begin the transition towards adulthood. During this period of life, countless developmental changes occur including physical, emotional, social, and cognitive changes (Pipher, 1995; Seidman & French, 2004). Although all of these developmental changes occur during adolescence, they do not occur at the same time across individuals nor do they necessarily progress at the same rate within individuals (Haen & Weil, 2010; Pipher, 1995). Adolescence is considered to be such a critical time in development that it has been said that "adolescence is rivaled only by infancy in the degree of changes that occur within the body over a relatively short time" (Haen & Weil, 2010, p. 39). In addition to the countless physical changes that adolescents must learn to navigate, intellectual and brain development provides additional hurdles to overcome. During

adolescence, the amygdala in the limbic system develops more rapidly than the prefrontal cortex (Haen & Weil, 2010). This discrepancy in the rate of brain development results in adolescents who have widely fluctuating emotional experiences, yet lack the executive functioning skills to understand these experiences and regulate their emotional response. This difference in experience and regulation, in turn, may relate to the impulsivity and sensation-seeking behaviors that are often observed in adolescents (Haen & Weil, 2010).

Perhaps even more noticeable to an observer, and certainly more apparent to the individual, are the physical changes that occur in adolescence. The onset of puberty, and the resulting physical changes, can be troubling for young adolescent girls. Weight gain associated with normal pubertal changes may result in the adolescent's appearance being even further from the socially desirable thin-ideal (LeCroy & Daley, 2001). Early-maturing girls are even more susceptible to developing low self-esteem and they tend to have the greatest body dissatisfaction (LeCroy & Daley, 2001). In addition, puberty has been identified as a time of increased risk for psychological difficulties, particularly in early-maturing females (Graber, Nichols, & Brooks-Gunn, 2010; LeCroy & Daley, 2001). Although cognitive development such as executive functioning and abstract thinking are not fully developed until late adolescence or young adulthood, today's youth are entering puberty at increasingly younger ages as compared to a few decades ago (Graber et al., 2010; Pipher, 1995).

Adolescence is also a time of developing one's sense of self. In today's Western society, a high level of importance is placed on physical appearance, particularly for women and girls. Beginning at an early age, girls are exposed to media examples

depicting an often impossible-to-achieve thin ideal (Krayer, Ingledew, & Iphofen, 2008; LeCroy & Daley, 2001; McCabe et al., 2006; Pipher, 1995). In addition, adolescent girls are surrounded with family and peers who may further contribute to the internalization of these social norms. "During adolescence, girls tend to look for guidelines that can shape their transformation to young women. This search for standards may be, in part, why girls are so vulnerable to the overwhelming cultural preference for thinness" (LeCroy & Daley, 2001, p. 23). This discrepancy between one's self-perception and the cultural thin-ideal may be increasingly exaggerated in individuals who do not fit the Western definition of beauty. For example, non-Euro-American adolescents may be at risk for experiencing even greater difficulties in this area due to differences on other characteristics of Euro-American beauty ideals such as skin color and hair type (Harris, 1994). However, researchers have "argued that strong identification with one's culture of origin could protect women of color against the unrealistic White standard of beauty" (Zhang, Dixon & Conrad, 2009, p. 265). By strongly identifying with their cultural group, women of color may be less likely to internalize the beauty standards and thin-ideal of Western culture (Harris, 1994). In turn, this may contribute to the findings that African American girls and women have higher body-esteem despite greater average weight as compared to Caucasian girls and women (Harris, 1994).

Developing positive self-esteem during adolescence can have long-term implications on mental health and overall well-being. Low self-esteem has been shown to be related to a variety of psychological concerns including depression, suicide, eating disorders, anxiety, substance use, and poor academic outcomes (Caprara, Steca, Gerbino,

Paciello, & Vecchio, 2005; Zimmerman, Copeland, Shope, & Dielman, 1997). Longitudinal research investigating self-esteem throughout adolescence has indicated that self-esteem may be consistent for some adolescents (Zimmerman et al., 1997). However, a variety of domains contribute to self-esteem (e.g. physical appearance, academic ability, and peer relationships) and self-esteem may vary greatly for others across their adolescence (Zimmerman et al., 1997). As compared to male adolescents, "female adolescents were more likely to be in the steadily decreasing self-esteem group" (Zimmerman et al., 1997, p. 117). In addition to the gender differences found in self-esteem, depression is diagnosed twice as often in females as compared to males (Franko & Striegel-Moore, 2002). Considering the factors of declining self-esteem and risk of depression, there appears to be support in favor of targeting the developmental period of adolescence to improve young girls' sense of self-esteem.

Prevention program timing. In addition to the developmental reasons for targeting adolescence, additional factors must be considered when determining the appropriate timing of prevention programs. In the United States, the period of early adolescence is marked by the transition from elementary school to middle school. For many youth, sixth grade marks a transition to not only a new school location, but a new format for learning. Students who were accustomed to spending the entire day with a familiar group of students and a single teacher who was familiar with their individual strengths and weaknesses, are faced with a learning environment that involves adjusting to a variety of teachers and classmates every 45 minutes (Seidman & French, 2004). Although this transition is normative across much of the United States, it comes at a time

when adolescents are also experiencing a variety of developmental changes. The convergence of these developmental and ecological transitions results in a *turning point* in which there exists a period of vulnerability that can present an opportunity for prevention programs (Seidman & French, 2004). Although not all adolescents display developmental progression at the same time or rate, the normative transition to middle-school presents a natural opportunity for the implementation of universal prevention programs. This opportunity is further strengthened when considering the physical, emotional, and social changes that occur during adolescence, as well as the drops that are typically seen in self-esteem and body image during this period of life. When considering the risks associated with low self-esteem and poor body-image, such as depression, a prevention program that seeks to assist adolescents in navigating this transition has the potential to benefit a large number of individuals. By providing young adolescent girls the skills to develop and maintain a positive self-esteem and body image, it may be possible to prevent the development of difficulties later in life.

Physical Activity and Mental Health

Benefits of exercise. A large body of research exists in support of both the physical and psychological benefits of exercise (Kantomaa, Tammelin, Demakakos, Ebeling, & Taanila, 2010; Kirkcaldy et al., 2002; Koff & Bauman, 1997; Lepage & Crowther, 2010; McCabe et al., 2006). Regular exercise has been shown to result in a decreased risk of cardiovascular disease, diabetes, and even some cancers (Burgess, Grogan, & Burwitz, 2006; Lepage & Crowther, 2010). In addition, regular exercise has been shown to result in an improvement in various psychological factors including

decreased stress, anxiety, and depression, as well as overall improvements in measures of well-being (Kantomaa et al., 2010; Kirkcaldy et al., 2002; Lepage & Crowther, 2010; McCabe et al., 2006). Unfortunately, a consistent finding in the United States is that adolescents regularly fail to meet the recommended amount of exercise, and rates of obesity and diabetes are on the rise (Bush et al., 2010; Grieser et al., 2006; Kirkcaldy et al., 2002; Schneider, Dunn, & Cooper, 2009). In addition to desired improvements in the health and physical well-being of adolescents, concern has arisen regarding the relationship between exercise and mental health and well-being. Studies have indicated that participation in exercise and sports has been shown to be a protective factor against body dissatisfaction in adolescents (Lepage & Crowther, 2010; McCabe et al., 2006). As a result, researchers have sought to implement health promotion programs, which are often school-based, to increase the rates of physical activity amongst adolescents. Unfortunately, studies repeatedly fail to show significant gains, and some of the frequently cited limitations include the length of intervention being too short, as well as failure to engage the adolescents in the physical activity (Bush et al., 2010; Lepage & Crowther, 2010; McCabe et al., 2006).

Although research has demonstrated a difficulty in engaging all subjects, this is particularly true for adolescent females. One study sought to better understand the process by which adolescent girls choose, or choose not to, participate in physical activities (Grieser et al., 2006). To add further concern, studies have shown that during adolescence, rates of physical activity commonly drop even lower, particularly in adolescent females (Grieser et al., 2006). Using both qualitative and quantitative

methods, the authors sought to better understand the perceived positive and negative effects of participating in exercise, to understand what activities the adolescents participated in and stated a preference for, and if any of these results varied based on race/ethnicity (Grieser et al., 2006). The findings indicated that responses were fairly similar across ethnic groups with the most commonly stated benefit of physical activity was staying in shape, and the most commonly stated negative effect of exercise included becoming injured (Grieser et al., 2006). The adolescents also stated that a common reason for non-participation in a given physical activity related to disliking that form of sport and/or exercise. Although it may seem to be a commonsense observation, adolescents are unlikely to participate in a physical activity that they do not enjoy. Coupled with adolescents' increased sense of self-consciousness, it becomes increasingly difficult to engage adolescents, particularly adolescent females, in exercise and physical activity which could offer an improvement in both their physical and psychological well-being.

Dance as exercise. In addition to identifying the potential hurdles to adolescent exercise, the researchers also inquired as to the adolescent's commonly performed physical activities, as well as activities they self-reported as enjoyable (Grieser et al., 2006). Across all ethnic groups, the adolescent girls in this study reported that they enjoyed dance as a form of physical activity, and they also reported this as one of the forms of physical activity that they engaged in most often (Grieser et al., 2006). Additionally, levels of self-awareness and self-consciousness increase during adolescence, which may contribute to a decrease in willingness to engage in physical

activities; however, this feeling of inadequacy and lack of confidence is not reported in relation to dance (Block, 2001).

Additional studies have sought to understand the role dance may play as a form of exercise. In a study of female college students, researchers sought to understand the relationship between participation in non-professional dance classes and body-image, physical fitness, and locus of control (Adame, Radell, Johnson, & Cole, 1991). The findings indicated that the dancers were more physically fit and reported more positive evaluations of their fitness and physical health, than did the non-dancers. Unexpectedly, however, no significant difference was found between dancers and non-dancers on the measure of appearance-based body image (Adame et al., 1991). Interestingly, this study found that there was no correlation between the length of dance participation and level of physical fitness, however, the study did not account for other forms exercise that may be done outside of the dance classes. Additionally, this study was limited to college freshman and may not accurately represent the larger population or generalize to women of different ages and/or experiences.

In another study, researchers designed an aerobic dance intervention to evaluate the effect of physical activity on measures of body dissatisfaction and physical self-perceptions (Burgess et al., 2006). Participants were selected based on a self-report of high levels of body-dissatisfaction and low levels of physical activity at baseline. Following a 6-week intervention, participants were shown to have increases on measures of body-attitudes and self-perception (Burgess et al., 2006). The authors concluded that the data “present a particularly strong case for the positive psychological benefits of

aerobic dance for female adolescents with a poor image of themselves" (Burgess et al., 2006, p. 63).

Dance/movement therapy. An additional area of support for the utilization of dance as an intervention comes from the literature on dance/movement therapy (DMT). Although "dance has been used therapeutically for thousands of years," the quantity and quality of research on DMT are lacking (Ritter & Low, 1996, p. 249). Much of the available research on DMT focuses on psychiatric populations, and the most common methodology used is a single case study design (Capello, 2008; Erfer & Ziv, 2006; Koch & Bräuninger, 2006). Although the methodology of some of the DMT research has been questioned due to the infrequency of randomized control trials (Meekums, 2010), the existing research supports the use of DMT for a variety of populations including children with learning disorders, emotional and behavioral problems, and developmental disorders; trauma survivors; depressed female adolescents; and adults with eating disorders and substance use problems (Capello, 2008; Erfer & Ziv, 2006; Koch & Bräuninger, 2006; Ritter & Low, 1996). DMT has been shown to be particularly helpful in adult clients with body-centered concerns because promoting positive changes in body image is a central goal in DMT work (Erfer & Ziv, 2006; Ritter & Low, 1996). While the quantitative research evidence is sparse for DMT, the qualitative and case-study evidence supports that self-concept improves following DMT treatment (Ritter & Low, 1996). In addition, DMT has also been shown to be helpful in building group cohesion in the context of group therapy for children in a psychiatric inpatient setting (Erfer & Ziv, 2006).

In addition to the research supporting the use of DMT with psychiatric populations, there is a fair amount of support suggesting that some of the benefits shown in DMT may be applicable to the non-clinical populations (Ritter & Low, 1996). Following a meta-analysis of the DMT literature from 1973-1993, researchers concluded that "DMT appears to have therapeutic value for the healthy person" (Ritter & Low, 1996, p. 250). Furthermore, their data-analyses indicated that DMT has been shown to have an effect on psychological factors relating to anxiety, depression, self-acceptance, and body-attitudes in persons without psychiatric diagnoses. Additionally, "dance can be of value psychologically to girls and women whether they are participating in dance education, dance as recreation, or dance as therapy" (Block, 2001, p. 119).

Dance and well-being. A review of the literature regarding psychological factors such as body-image and self-esteem in the context of dance reveals somewhat mixed results. There is a fairly large body of literature that has implicated ballet training as having a relationship with an increased incidence of eating disorders and poor body-image (Radell et al., 2002; Ravaldi et al., 2006; Slater & Tiggemann, 2002). In contrast, other researchers propose a great number of positive effects of dance participation, including increased self-esteem, improved body image, and overall well-being. These conflicting findings may be due, in part, to the degree of variability in the types of dance forms being studied. For example, in the studies investigating the rate of eating disorders, participants were involved in ballet training, which has a tendency to be highly competitive and rigid in its training style. In contrast, other studies promoting the positive effects of dance have been conducted on participants who dance in more

informal settings, such as college dance classes, or less-structured and less-competitive forms of dance instruction, such as modern dance classes or hip-hop (Adame et al., 1991; Beaulac et al., 2010; Burgess et al., 2006; Farr, 1997; La Torre, 2008; Swami & Tovée, 2009). Therefore, an important distinction to consider when reviewing this literature is the type of dance as well as the context for the dance training and/or instruction. With this in mind, the following studies were examined to gather information regarding the effects of participation in a non-professional dance class on individual factors such as body-image and self-esteem.

In one study, women who signed up for a college dance class were compared to non-dancers on measures of body image and physical fitness. The women dancers were found to be more physically fit than the non-dancers, however, there was no relationship found between the length of dance experience and level of physical fitness (Adame et al., 1991). The study also revealed that there were no statistical differences between the dancers and non-dancers on measures of body-image. A proposed explanation offered by the authors is that the individuals in the dance class may develop a heightened awareness of their physical features and imperfections, which leads to a negation of the expected group differences (Adame et al., 1991). However, among the group of dancers, those who were more physically fit had higher ratings of body-image satisfaction and received higher measures of physical fitness and overall health (Adame et al., 1991). As is consistent with much of the available research in this area, the researchers indicate a strong need for further investigations concerning the relationships between dance, physical fitness, and body-image (Adame et al., 1991). When considering the physical

and psychological benefits of exercise, combined with the fact that most adolescents, particularly adolescent girls, do not get enough exercise, it is highly relevant to identify forms of exercise in which adolescent girls are likely to participate and engage. Although many adolescent girls become self-conscious when asked to engage in sports or other physical activities, they often feel confident when dancing, and many women and adolescent girls feel a connection with at least one form of dance (Block, 2001). Additionally, when learning a form of dance, one develops a sense of mastery over the body, which can result in a sense of empowerment that can counteract negative body-image and poor self-esteem (Block, 2001). "Dance can be of value psychologically to girls and women....It can be a liberating expression of self, a reflection of the past, the joy of the present, and the embodied dreams of the future." (Block, 2001, p. 119).

Intervention Programs for Adolescents

Physical activity interventions. As mentioned previously, a majority of adolescents fall below the recommended levels of physical activity, and this is particularly true for adolescent girls (Kirkcaldy et al., 2002; Schneider et al., 2009). One study in Montreal, Canada, sought to increase levels of physical activity by introducing a school-based, non-curricular intervention program with an underserved adolescent population (Bush et al., 2010). A variety of exercise opportunities were offered to students on campus during a 16-week intervention period. Contrary to previous research findings indicating that girls are much less physically active as compared to boys, the authors noted that the girls in their study participated in the activities more than the boys (Bush et al., 2010). The authors concluded that this surprising result may have been due

to the types of physical activities offered, and that "adolescent girls are less active because the types of physical activities generally offered are not as appealing to girls as they are to boys" (Bush et al., 2010, p. 85). The authors further explained that in this study, the adolescent "girls seemed to prefer the dance and gender-segregated activities" (Bush et al., 2010, p. 85). The authors proposed that in addition to identifying and reducing barriers that prevent adolescents from participating in physical activity, a successful intervention program should also identify and enhance the benefits as understood by the participants, in this case, focusing on activities that the adolescents perceive as enjoyable (Bush et al., 2010). During the course of the intervention, over half of the students in the intervention group participated in one or more of the physical activities that were offered. No significant differences were found between groups on the measure of physical activity, however, all students increased their overall leisure time activity level, and this increase, therefore, cannot be attributed to the effects of the intervention (Bush et al., 2010). Potential explanations for this lack of significant findings may be explained by the relatively short duration of the intervention, sharing of information between the intervention and control groups, or a seasonal confound in that the baseline data were collected during winter months and all students may have increased their levels of activity as the weather became more conducive to outdoor sports (Bush et al., 2010).

Another study, seeking to understand the factors involved in adolescent well-being, identified a group of Swedish adolescents who rated in the 97th percentile on a measure of body satisfaction (Frisén & Holmqvist, 2010). Following the selection

process, a total of 30 individuals participated in a semi-structured interview that was later transcribed and analyzed for themes (Frisén & Holmqvist, 2010). Perhaps unsurprisingly, the authors reported that "the vast majority of the adolescents participating in this study were highly physically active" (Frisén & Holmqvist, 2010, p. 210). In addition, the authors indicated that the adolescents with high levels of body satisfaction viewed exercise as a pleasant activity that was a natural part of their lives (Frisén & Holmqvist, 2010). Based on the findings of this study, in order to increase the physical activity of adolescents, one must encourage them to participate in activities that they find pleasant and enjoyable (Frisén & Holmqvist, 2010).

Self-esteem/body-image interventions. Several intervention programs for improving self-esteem and body-image in children and adolescents were identified in the literature. One such intervention study sought to increase body-image, self-esteem, and peer relationships through a program designed to increase physical activity. Classrooms of school-aged children (ages 8-13) from four schools in Melbourne, Australia were randomly assigned to intervention and control groups (McCabe et al., 2006). The intervention program, consisting of eight weekly 40-minute sessions, focused on increasing the participants' amount of physical activity, developing peer relationships, and recognizing and accepting individual differences with "an emphasis on personality characteristics and positive attributes" (McCabe et al., 2006, p. 592). As the authors mention, care must be taken to encourage physical activity and positive body image, while at the same time avoiding the risks of too much focus that may result in an increased risk for the development of eating disorders (McCabe et al., 2006). Following

data analysis, the researchers concluded that the boys in the program demonstrated a reduction in negative affect; however, the same effect was not shown for the female participants (McCabe et al., 2006). Limitations in the implementation of this study, particularly the brief intervention length, may have contributed to the lack of expected results in the female participants; however, additional concerns may relate to the degree of body image concern that is present in young females, as well as the tendency for these body image concerns to increase in importance as girls increase in age (McCabe et al., 2006).

Additional intervention programs designed and implemented to show improvements on body image and self-esteem were reviewed. The Go Grrrls program, in particular, was designed to address a number of concerns faced by adolescent females (LeCroy, 2004a). Groundwork for the development of this comprehensive prevention program for adolescent girls began in 1995, and has progressed through various stages of evaluation including pilot studies, a quasi-experimental study, and an experimental design in which subjects were randomly assigned to the intervention and control groups (LeCroy & Daley, 2001, LeCroy, 2005). The program was led by female instructors, in which the adolescent girls progressed through 12 structured sessions encompassing 6 developmental tasks including "gender role identity, positive self-image,independence, making and keeping friends, using resources, and planning for the future" (LeCroy, 2004a, p. 430). The Go Grrrls program was evaluated in a quasi-experimental study with volunteers assigned to the intervention group, and matched participants from the same school serving as control subjects (LeCroy, 2004a). Although modest results were found,

the intervention group demonstrated improvements on three out of the five outcome measures including measures of peer esteem and a measure assessing the goal of developing positive self-image in the participants (LeCroy, 2004a). "Overall, this study found positive results and may demonstrate that early adolescent girls can benefit from prevention programs like the Go Grrrls Program", however, more research is needed to determine the long-term effects of adolescent intervention programs (LeCroy, 2004a, p. 437). In a follow up study, the Go Grrrls Program was further evaluated by means of an experimental design with a sample of 118 participants (LeCroy, 2004b, 2005). Following the results of the previous quasi-experimental design, changes were made in both the program administration, as well as the measures used to determine the outcomes (LeCroy, 2005). Following improvements to the implementation of the program, as well as refinements of the measures used to evaluate the constructs, the intervention group demonstrated significant improvements in five out of the eight measures including body-image, assertiveness, attractiveness, self-efficacy, and self-liking (measures of hopelessness and help endorsements approached significance; LeCroy, 2005).

Another research team sought to implement a school-based intervention to improve self-esteem in adolescent girls in Melbourne, Australia (Richardson & Paxton, 2010). A quasi-experimental design was used in which students from one Catholic secondary school served as the intervention group, whereas students from a second Catholic secondary school formed the comparison group (Richardson & Paxton, 2010). The program consisted of three interactive 50-minute sessions which focused on educating the "participants about the negative consequences of internalization of the thin

ideal, body comparisons, appearance conversations and appearance testing" as well as empowering "participants to develop strategies they can use to combat these risk factors." (Richardson & Paxton, 2010, p. 115). The authors reported that the intervention had a positive impact on all targeted areas with the exception of appearance testing, and the gains were maintained at a 3-month follow-up evaluation (Richardson & Paxton, 2010). The available research regarding the implementation of programs designed to influence the body-image and self-esteem of adolescent girls supports both the need and effectiveness of these programs.

Dance interventions. Although three dance intervention programs for adolescents were identified in the literature, the focus of two of these studies was program evaluation, and data were not reported for participant ratings of self-esteem or body-image. The first of these studies consisted of a descriptive analysis of the program evaluation process, and inherent challenges, faced by a Cambodian dance program for adolescents in the eastern part of the United States (Coppens et al., 2006). Particular attention was given to cultural considerations and challenges faced by the dance program staff, as they were required to use Western methods and instruments to evaluate the self-esteem of individuals who may have been better explained using a more collectivistic conceptual understanding (Coppens et al., 2006). A particular criticism was raised regarding the Rosenberg Self-Esteem Scale, which is commonly used in adolescent studies. The authors faced a challenge in that their funding source required this measure to allow for comparison across studies, however, the authors felt that this measure focused on individualistic definitions of self-esteem, that may have been pathologizing for individuals who value

more collectivistic factors in an evaluation of self-esteem (Coppens et al., 2006). Although the authors identify these points of concern, they did not address the findings of the Rosenberg Self-Esteem Scale, nor other measures, as the article focusing solely on the process and challenges of conducting the program evaluation.

The second study on an adolescent dance intervention program was identified in which investigators sought to bring a dance program to economically disadvantaged youth in Ottawa, Canada. Two program formats were offered, including a girls-only group and a mixed gender group for two 3-month interventions (Beaulac et al., 2010). Although the focus of the intervention was to increase physical activity, and thereby decrease the risk of health and social problems, the research presented did not include outcome measures for the adolescents who participated. In contrast, the research focused on the implementation of the program, including the challenges and recommendations for improvement (Beaulac et al., 2010). The greatest challenges cited in the evaluation included program attendance and attrition prior to completion of the 3-month program (Beaulac et al., 2010). Strengths of the program were also identified. These strengths included giving the adolescents an opportunity to learn something new, accessibility of the program (including transportation, location, and no-cost), as well as the social relationships that formed (Beaulac et al., 2010).

Only one identified intervention specifically sought to understand the effects of a dance intervention on the body-image ratings of adolescent girls. Participants were British students, between the ages of 13-14 years old, who had been identified as having high levels of body dissatisfaction and low levels of physical activity (Burgess et al.,

2006). A cross-over design was used and students were randomly assigned to begin in either the aerobic dance class, or the treatment-as-usual swimming program (Burgess et al., 2006). The authors predicted that participation in the aerobic dance class would result in an improvement in levels of body satisfaction and self-perception scores as compared to the control group. Following the 6-week intervention, participants reported "enhanced body attitudes and physical self-perceptions"; however, these results were not maintained after the conclusion of the aerobic dance course (Burgess et al., 2006, p. 63). The authors concluded that this study presented "a particularly strong case for the positive psychological benefits of aerobic dance for female adolescents with a poor image of themselves" (Burgess et al., 2006, p. 63). In addition, the findings suggest that the type of exercise may influence the potential beneficial effects of physical activity (Burgess et al., 2006). These outcomes suggest the need for longer-term intervention programs, as compared to time-limited programs, that incorporate forms of physical activity that the adolescents enjoy.

Summary and Research Question

Adolescence is a transitional period that involves many changes including cognitive, social, emotional, and physical development (Dubois, Lockerd, Reach, & Parra, 2003; Haen & Weil, 2010; Pipher, 1995). Specifically, adolescent girls are faced with physical changes, such as weight gain, that conflict with the dominant cultural definition of beauty (LeCroy & Daley, 2001). Although weight is only one of many factors contributing to self-esteem, when faced with the internalization of this thin-ideal amidst normative physical changes many adolescent girls experience negative body

image and decreased self-esteem (Krayer et al., 2008). Poor self-esteem, in turn, has been shown to relate to increased risk of depression and other mental health concerns (Zimmerman et al., 1997). Various community groups have implemented youth development programs, such as the GDC, in an attempt to counter these effects. Unfortunately, research attesting to the effects of these programs is virtually nonexistent.

Extant research, however, does attest to the benefits of exercise on self-esteem, as well qualitative findings indicating that dance is a preferred physical activity for adolescent girls (Grieser et al., 2006; Kirkcaldy et al., 2002; Koff & Bauman, 1997). Research in the field of dance/movement therapy provides evidence of positive psychological effects for children, adolescents, and adults with psychiatric disorders; in addition, similar benefits are suggested for non-clinical populations (Ritter & Low, 1996). These benefits include increased group cohesion, decreased anxiety and depression symptoms, and improvements in body-awareness and self-concept (Capello, 2008; Erfer & Ziv, 2006; Koch & Bräuninger, 2006).

Although a search of the available literature did not reveal any program evaluations or intervention studies specifically investigating the effect of a non-professional, community-based dance program on the self-esteem and body-image of adolescent girls, much can be learned from a review of the existing research. The literature on promoting exercise and physical activity indicates that a successful adolescent intervention program will include activities that the youth enjoy, activities that do not encourage competition, and the availability of girls-only groups. Similarly, the literature discussing interventions for the improvement of self-esteem and body-image in

adolescents indicates that adolescents prefer long-term programs, groups with same-gender leaders, activity-based as opposed to didactic learning, and community based locations for the implementation of the program. When considering these recommendations for engaging adolescents in an intervention program, along with the findings that the majority of adolescent girls report enjoyment of dance activities, a question begins to form regarding the impact of participation in existing programs that provide adolescent girls with the opportunity to increase their physical activity in an enjoyable format. Considering the potential benefits from participation in these programs, as well as the limited existing research on the impact and effects of these programs, this study sought to answer the question: "Does participation in a community-based dance program result in improvements on measures of self-esteem and body image in adolescent girls?"

Method

Program Overview[2]

This study recruited research participants in collaboration with a non-profit community center in Southern California. The community center exists in the network of a national organization; however, the programs discussed below were independently developed and implemented in this local branch. Although the community center has a variety of classes and programs for both adolescent and adult females, the focus of this study was the girls' empowerment program (GEP). In addition to the overarching girls'

[2] Information regarding the empowerment and dance programs was obtained from the organization's website, as well as personal communications with the program director. Due to the request for anonymity, citations that would reveal the identity of the organization have been omitted.

empowerment program, the community center developed two sub-programs including a girls' dance class (GDC) as well as a computer skills class that was beyond the scope of this study. According to the program director, the overarching-goals of the program include increasing the self-esteem and confidence of the adolescent girls who participate in the program (personal communication).

The GEP operates during the 10-month school year (September-June), and follows the academic calendar of a nearby middle-school. The vast majority of the GEP participants attend this middle school; however, this is not a requirement of enrollment. Girls who participate are asked to commit to the program for a full year and are expected to maintain regular attendance. No other restrictions or qualifications apply, and participants are not selected or prohibited due to factors such as family income, race/ethnicity, or attendance at the above mentioned middle school. A small, annual fee is required, with an additional supply fee for those who join the GDC; however, the majority of expenses are covered by fundraising and donations made to the organization.

The GEP and GDC are led by an ethnically diverse group of female instructors, and the classes each meet for two hours per week throughout the school year. According to the organization, the GEP is a leadership and empowerment program that focuses on topics of self-esteem, healthy lifestyles, community connection, career development, communication skills, and cultural awareness. Due to high enrollment numbers, the GEP is separated into grade-based cohorts with each grade-level meeting on a different day of the week. According to the program director, the GEP topics are presented in a highly interactive manner with approximately 30% of the material presented in a didactic

style, with the remaining 70% of each class including discussion, small-break out groups, creative artwork, and interactive activities (personal communication).

According to the program director, the GEP curriculum includes a multitude of topics that have been identified as applicable to adolescent girls. The themes have evolved over the years of program development, and include topics that have been identified in the research literature as pertinent to each age group (personal communication). For example, the sixth grade curriculum covers topics including: puberty, bullying, building friendships, conflict resolution, community involvement, media literacy, and healthy romantic relationships (personal communication). The media literacy component focuses on examining and understanding the messages provided in the media regarding expectations regarding one's weight and pressures to meet the unrealistic thin-ideal. A variety of instruction methods are utilized during each GEP lesson, including discussion, activities, and guest speakers.

The GDC is a sub-program that focuses on the healthy lifestyles component of the GEP. The combined-grade GDC also meets for two hours each week, and recently expanded to include both beginner and advanced level classes. The GDC is a non-competitive dance class that focuses on teamwork, creativity, self-confidence and discipline. According to the program director (personal communication), the GDC is primarily a hip-hop dance program, with some incorporation of other dance styles. This is based on the dance instructor's knowledge and expertise, as well as the expressed preferences of the GDC participants. The majority of the girls in the GDC also

participate in the over-arching empowerment program; however, this is not a requirement as some individuals are unable to attend the program on multiple days per week.

Participants

According to the program director (personal communication), approximately 80 adolescent females participate in the GEP and GDC programs each year. On average, approximately 70 individuals enroll in the empowerment (GEP) program, and a subset of approximately 25 individuals also enroll in the dance (GDC) program. Approximately 10 girls each year enroll in the GDC but are not enrolled simultaneously in the over-arching GEP program due to schedule conflicts. In a typical year, approximately 50% of the participants are in the sixth grade and approximately 25% of participants are in each of the seventh and eighth grades. On average, the racial/ethnic background of participants in the GEP and GDC programs are 50% Latina, 20% Caucasian, 15% Asian/Pacific Islander and 10% African American; which is comparable to the demographics of the middle school that the majority of members attend (personal communication with program director).

Members of the empowerment and dance program for the 2011-2012 academic year were invited to participate in this study. Invitations to participate were provided by an in-person announcement in each of the GDC and GEP classes (grades 6-8). Information from both the researcher and program director clearly stated that participation is voluntary, and while the program director was in support of the research, there would be no negative consequences for non-participation.

Participants were included in the study if they (a) were currently in the sixth, seventh, or eighth grade; (b) returned a signed parental consent form; and (c) gave their assent to participate in the study. The intervention group was designed to include participants meeting the above criteria, who were enrolled in both the empowerment program and dance class. The control group was designed to include participants meeting the above criteria, who were only enrolled in the empowerment program.

Eligibility for participation was determined by the inclusion criteria, and there were no additional exclusion criteria. According to the program director, an attendance rate of at least 75% was expected for both the empowerment and dance programs. Attendance records have routinely kept for each of the weekly meetings and the program director agreed to provide the researcher with access to review attendance records for the study participants. This information was available to be used to determine if the number of sessions attended was associated with the self-esteem and/or body image outcome measures.

Self-esteem and Body-Image. All individuals in the GEP and GDC were presented with an opportunity to participate and a total of 17 girls returned signed consent forms and gave their assent for the research study. Of the 17 participants who completed the self-esteem and body-image pre-test measures, eight participants remained active in the GEP and/or GDC programs at the time of post-test data collection and completed the post-test measures. Of these eight participants, two initially enrolled in both the GEP and GDC programs, but discontinued participation in the GEP early in the school year due to scheduling conflicts while a third individual participated in only the GDC program

throughout the school year. Therefore, the data obtained at post-test did not allow for the comparison of a separate intervention (GEP + GDC) and control groups (GEP alone) as there were no GEP-alone participants who completed the study measures.

Of the five participants included in data analysis, 80% were 12 years old and in the sixth grade, 80% identified as Hispanic/Latino and one individual identified as bi-racial; 80% were in their first year of participation with the GEP and GDC programs. One subject was 13 years old, in the seventh grade and had participated in GEP/GDC for one year prior to the research study. 60% of these participants reported speaking both English and Spanish in the home while 40% indicated that they were monolingual-English speaking. 60% of the participants indicated that they were born in the US but at least one parent was born outside of the US; while the remaining 40% reported that they and both of their parents were born in the United States.

Archival Data.

GEP Archival Data. For the 2009-2010 academic year, 25 individuals completed the pre-test while 12 individuals completed the post-test; however, 5 subjects were excluded from the post-test analysis of internal consistency due to missing data. For the 2010-2011 academic year, 26 individuals completed the pre-test while 21 individuals completed the post-test; however, three subjects were excluded from the post-test analysis of internal consistency due to missing data.

GDC Archival Data. A total of 20 students completed the questionnaire following the 2009-2010 school year and 23 students completed the questionnaire following the 2010-2011 school year. One subject was excluded from analysis due to missing data.

Measures

Following consent and assent procedures, participants were asked to complete a study questionnaire including demographic information and self-report measures of self-esteem and body-image (See Appendix B). In addition, participants completed program questionnaires that were part of the standard procedures of the facility.

Demographic characteristics. Participants were asked to report a variety of demographic variables including age, height, weight, age of menarche, grade in school, ethnicity, and the primary language spoken at home. In addition, participants were asked to provide information regarding their level of physical activity as well as the total number of years they have participated in either the empowerment or dance programs.

To serve as indicators of socioeconomic status, participants were asked to report the highest level of education that their parents (or other adult) completed, as well as their parents' occupation. This information was used to calculate the Hollingshead Index which is a commonly used measure of socioeconomic status (Cirino et al., 2002; Hollingshead, 1975). Although the occupational categories were based upon the 1970 United States Census data, recent publications have indicated that the Hollingshead Index has a high degree of inter-rater reliability, as well as agreement across varying measures of socioeconomic status (Cirino et al., 2002).

Additionally, participants were asked to indicate the country of birth for themselves and their parents to assess acculturation by means of generational status (Romero, Carvajal, Volle, & Orduña, 2007). Participants indicating they were born outside of the United States were coded *1*, participants who were born in the United

States but reported at least one parent born outside of the United States were coded *2*, and participants indicating that both of their parents were born in the United States were coded *3* (Romero et al., 2007).

Self-esteem. Self-esteem was measured with the 10-item Rosenberg Self-Esteem Scale which is a commonly used measure of global self esteem that includes items such as *I feel I have a number of good qualities* and *On the whole, I am satisfied with myself* (Rosenberg, 1965). Participants indicated their responses according to a 4-point Likert scale ranging from *Strongly Agree* to *Strongly Disagree*. Responses were scored by assigning a numeric value (0-3) to each response option, and negative items were reverse scored. Possible scores range from 0-30, with higher scores indicating higher self-esteem.

A number of studies have supported the use of the Rosenberg Self-Esteem Scale for ethnically diverse (Caucasian, African-American, Native American and Latino) adolescent populations, with reliability coefficients ranging from 0.71 to .087 (Kurpius, Payakkakom, Rayle, Chee, & Arredondo, 2008; Phinney, Cantu, & Kurtz, 1997; Umaña-Taylor & Fine, 2001; Umaña-Taylor & Updegraff, 2007).

Body-image. Body-image was measured with the Body Esteem Scale for Adolescents and Adults (BESAA) developed by Mendelson, Mendelson, & White (2001). Although many measures of body-image focus solely on satisfaction with the appearance of specific body parts, the BESAA includes 3 subscales that focus on general appearance, weight satisfaction, and attributions of others regarding one's appearance and body. The BESAA consists of 23 items and responses are given according to a 5-point

Likert scale ranging from *Never* to *Always*. Responses were scored by assigning a numeric value (0-4) to each response option, and negative items were reverse scored. Possible scores range from 0-92 with higher scores indicating a more positive body-image.

Mendelson et al. (2001) evaluated the reliability of the BESAA on male and female, English-speaking Canadian adolescents and good internal consistency was reported (BE-Appearance: Cronbach's alpha=0.92, BE-Attribution: Cronbach's alpha= 0.81; BE-Weight: Cronbach's alpha=0.94). Another study used the BESAA with non-Hispanic Caucasian, young adolescent females and calculated mean scores of body dissatisfaction by summing all 23 items of the BESAA, internal consistency for this sample was reported as Cronbach's alpha=0.92 (Sinton & Birch, 2006).

Archival Data. Additional questionnaires developed by the program director have routinely been administered to the empowerment and dance participants for the past several years, with adaptations to the questions as deemed necessary by the program director. The researcher had access to analyze these data, but did not have the ability to influence the items included nor the format in which the items are asked. Although a variety of topics are covered in the program questionnaires, data analysis by the program director had been limited to single-item frequency distributions.

The program questionnaires seek to gather information regarding the intervention objectives of the program, including topics of empowerment, self-esteem, peer relationships, and communication. The majority of items ask for participants to indicate their response on a 5-point Likert scale ranging from Strongly Disagree to Strongly Agree

and include items such as *Dance increased my self-confidence* and *I look forward to facing and working to overcome challenges that may come my way*. Additional items include a self-evaluation of skills on a scale of 1 to 10 (1= not good, 10= very good), such as *Expressing my feelings in a group*; forced choice questions regarding the perceived relationship with program staff; and open ended questions concerning the participant's experience and any recommendations for changes in the program.

Procedures

Parental consent. Potential research participants were initially invited to participate through an in-person presentation by the researcher introducing the research opportunity (See Appendix C). Potential research participants were provided with an informational letter and consent forms (available in either English or Spanish) and were asked to share these documents with their parent and/or guardian (See Appendix D and Appendix E). To reduce any concerns regarding potential coercion, all documents clearly stated that participation was voluntary and indicated that there would be no negative consequences for those who decided not to participate in the research. Parents were given the opportunity to contact the researcher with questions prior to making a decision regarding their child's participation. Monolingual-Spanish speaking individuals were given an option to speak with the researcher through the assistance of a translator; however, no parents contacted the researcher with questions. The written materials requested that parents return the consent form indicating if they were/were not giving permission for their child to participate. All girls who returned a signed parental consent form were invited to participate in the study.

Participant assent. Following the initial recruitment phase, the researcher attended each empowerment and dance class to provide a brief introduction to the study and to explain the consent and assent procedures (See Appendix C). At this point, each potential participant was given an opportunity to decide if they would like to participate in the research. Individuals who were eligible to be invited to participate were given the assent form (See Appendix F) and study questionnaire (See Appendix A). In addition to describing the study, the researcher clearly stated that participation was voluntary, and indicated that there would be no negative consequences if they decided not to participate. After hearing the brief presentation, eligible individuals were invited to review and sign the assent form if they decided to participate in the research study. The researcher remained present to answer any questions that arose about the study or specific questionnaire items.

Due to the fact that individuals whose parents provided consent were intermingled with those whose parents declined consent, efforts were made to minimize drawing attention between eligible and non-eligible individuals. This was accomplished by addressing the eligibility and parental consent in a general statement to all of the individuals and by providing an alternative activity (e.g. journaling exercise) for individuals who were not participating in the study.

Questionnaire administration. The study questionnaire was administered to participants during two data-collection periods across the academic year including the pre-test which was administered at the beginning of the program in October 2011 and the post-test which was administered at the end of the program in June 2012. The

administration of the pre-test and post-test was scheduled to occur across a one-week period since the classes were held on different days of the week based on program and grade level. Therefore, if a participant was absent during the dance class, there was a second opportunity to gather data from that participant on the night that they attended the empowerment program. The administration of the study questionnaires was coordinated with the facility to result in the least amount of disruption to the operation of the programs and the researcher worked with the program director to ensure that an alternate activity was available to reduce any social discomfort between study participants and non-participants.

Following the assent procedures, the baseline (pre-test) study questionnaire was administered during the beginning of the program year (October) at the program director's convenience. The study post-test questionnaire was identical to the pre-test; however, information regarding demographic variables was not re-collected. This post-test was administered at the end of the academic year, prior to summer break (June). The researcher reviewed attendance records to ensure that all study participants who remained enrolled in the program were given an opportunity to complete the post-test questionnaires, as well as to ensure that study data were not collected on participants for whom consent and assent were not obtained. In the event that data were collected from a participant who later withdrew from the study, the corresponding study questionnaire would have been destroyed.

Identifying information. Due to the multiple points of data collection, participants were asked to provide their name on the questionnaires so that pre-test and

post-test data could be matched. Additionally, participant names were used for comparison against attendance records to determine if the number of sessions was associated with self-esteem and/or body-image. Once these functions were completed, a participant identification number was assigned to protect the identity of participants. Once an identification number was assigned, identifying information was removed from the study questionnaires by rendering the name unreadable (i.e. blacking out the name). Only the researcher knew the identity of girls who participated in the study, and the consent and assent forms were kept in a locked file cabinet in the dissertation chair's office to further protect confidentiality.

Based on the nature of the program questionnaires, some of the archival documents contained identifying information including the participants' name; however, according to the program director, the participants had the option of completing the form anonymously. Therefore, it was unknown if the archival and current program questionnaires would have the information necessary to match the pre- and post-tests. Due to this possibility, the data was analyzed according to cohort pre- and post-test responses. Throughout the data-entry process, all documents with identifying information (i.e. program questionnaires) remained in the custody of the program director and no identifying information were taken off the premises. Electronic databases used for data analysis were password protected, utilized identification code numbers, and did not include any identifying information.

Data Analysis

Self-Esteem and Body Image. Parental consent, participant assent, and data collection procedures were conducted as outlined in the Procedures section. Data analysis for the study measures began with frequency and descriptive statistics to describe the demographics of participants including factors such as age, grade, ethnicity, and number of years the member has participated in the empowerment and/or dance programs.

Participants in the empowerment and dance programs completed the self-esteem, and body-image measures at two points in time (pre-test and post-test) throughout the program. Although the constructs of self-esteem and body-image have some theoretical similarities, data analysis by Mendelson et al. (2001) concluded that although the appearance subscale of the BESAA correlated with self-esteem as measured by the Rosenberg Self-Esteem scale (RSE), this correlation was not found for the Weight and Attribution subscales of the BESAA. Therefore; data analysis for the self-esteem and body-image constructs included a paired-sample *t*-test for each of the dependent variables. The pre-test and post-test data from the five GEP + GDC participants was analyzed and the data from the three GDC-only participants was excluded from the data analysis. A matched sample *t*-test was calculated for the RSE, BESAA, and each of the three BESAA subscales (i.e. Appearance, Weight, and Attribution). Descriptive statistics were calculated for each data set (see Table 1) and effect sizes were calculated using Cohen's d. Due to concerns regarding the small sample size, the nonparametric

counterpart for the matched sample *t*-test, the Wilcoxon Test, was also calculated for the RSE, BESAA, and each of the BESAA subscales.

Program Questionnaires. The consent form provided an option for parents to give permission for their child's program questionnaires to be analyzed without their participation in the research study measures; however, none of the parents selected this option. Therefore, the program questionnaires from the current year (2011-2012) of GEP and GDC members were not included in the data analysis.

Archival Data. The program routinely collected survey data for the GEP and GDC classes; however, to date the items had only been analyzed with single-item frequency distributions. Historically, members had been given the opportunity to complete the program questionnaires anonymously; therefore, data was analyzed according to annual cohorts for the GEP and GDC programs.

GEP Archival Data. Data for the GEP consisted of pre-test and post-test measures including likert-scale and open-ended questions. The program questionnaires administered during the two previous academic years included pre-test and post-test data; however, the items on the questionnaires were inconsistent across academic years and the data was therefore analyzed according to cohort. The post-test questionnaires for each cohort were analyzed with Cronbach's alpha to determine the internal consistency; subjects with any missing data were excluded from this analysis. Data for each cohort was also analyzed using a *t*-test to compare the pre-test and post-test scores for each individual. A matched-sample *t*-test was not permissible due to the fact that questionnaires were completed anonymously. Therefore, the average score for each

participant was calculated, including those with missing data, and an independent samples *t*-test was calculated for each cohort.

The open-ended portion of the GEP questionnaires included items pertaining to the participants experience with the program, evaluation of the group leaders, and suggestions for program improvement. Questions directly related to program leaders were excluded from the analysis (e.g. *Are you comfortable with the [GEP] leaders?* and *What are some things you learned and/or liked from [GEP leaders]?*).

The open-ended questions from both GEP academic cohorts were analyzed using a general inductive approach to identify themes that emerged from the raw data (Thomas, 2006). The researcher entered all participants' responses as verbatim quotations into a word processor so that all of the responses for each question could be reviewed collectively. During the initial analysis, the researcher separated multi-part responses (e.g. *List three things you learned about yourself in/during [GEP]*) into segments for each meaningful phrase. As many of the responses included a single word or short phrase, responses for each question were then inductively grouped together according to themes (See Table 3). After all responses were organized based upon the emergent themes for each question, the categories were reviewed by an auditor to review for clarity and consistency. Finally, the emergent themes for each of the questions were reviewed to determine the presence of overarching themes that were present across multiple questions within a program, as well as across both the GEP and GDC programs.

GDC Archival Data. Data for the GDC program consisted of post-test measures including likert-scale and open-ended questions. Questionnaires for the two academic

years were identical, with the exception of two items, and data from each cohort were therefore combined for analysis. The Cronbach's alpha was calculated for the 20-item questionnaire to determine the internal consistency of the questionnaire. Additionally, descriptive statistics were run to determine if the distribution of scores allowed for factor analysis. Preliminary analyses indicated that two items on the questionnaire had a low discriminant index and were therefore excluded from the factor analysis (*My parents wouldn't be able to pay for dance at another studio in the community* = .541 and *Dance helps me stay out of trouble after school* = .390). Cronbach's alpha and descriptive statistics were calculated for the remaining 18 items, followed by a Principal Axis Factoring using three iterations and Varimax rotation. After the factors were identified, the items in each factor were subjected to descriptive statistics and Cronbach's alpha to determine the internal consistency of each identified subscale. Finally, the items within each of these subscales were reviewed to identify an overarching theme for each factor.

The open-ended portion of the GDC questionnaires included items pertaining to the participants experience with the program, changes participants have noticed in themselves, and suggestions for program improvement. Four of the open ended questions were repeated in each academic year and were therefore analyzed together. Two additional questions from the 2010-2011 academic year and one question from the 2009-2010 were also included. Questions directly related to program development and/or instructor feedback were excluded from the analysis (e.g. *What would you change about our dance program to make it better?* and *Do you have any comments or questions about this program?*).

The open-ended questions from both GDC academic cohorts were analyzed using a general inductive approach to identify themes that emerged from the raw data (Thomas, 2006). The researcher entered all participants' responses as verbatim quotations into a word processor so that all of the responses for each question could be reviewed collectively. During the initial analysis, the researcher separated multi-part responses (e.g. *List three things you learned about yourself in dance class*) into segments for each meaningful phrase. As many of the responses included a single word or short phrase, responses for each question were then inductively grouped together according to themes (See Table 6). After all responses were organized based upon the emergent themes for each question, the categories were reviewed by an auditor to review for clarity and consistency. Finally, the emergent themes for each of the questions were reviewed to determine the presence of overarching themes that were present across multiple questions within a program, as well as across both the GEP and GDC programs.

Results

Self-Esteem and Body Image

As described above, five subjects completed pre-test and post-test measures for Self-Esteem and Body-Image and were included in the data analysis. A paired samples *t*-test was used to compare the RSE pre-test and post-test scores (See Table 1). There was not a significant difference in the scores for the pre-test (M=23.00, SD=8.000) and post-test (M=27.40, SD=3.578) values; $t(4)$= -1.550, p= .196. Assuming this data reflects a true moderate effect size (d=0.6933), to obtain power of 0.80 a sample size of 19 individuals would be necessary. The Wilcoxon *T* test for dependent samples did not

reveal a significant difference in pre-test and post-test scores (*Z*=.188), which was consistent with the results of the paired sample *t*-test.

A paired samples *t*-test was used to compare the BESAA pre-test and post-test scores (See Table 1). There was a significant difference in the scores for the pre-test (*M*=50.60, *SD*=23.458) and post-test (*M*=75.40, *SD*=16.365) values; *t*(4)= -4.289, *p*=.013. Data analysis revealed a large effect size (*d*=1.9190) and a power of 0.8867 was obtained with data from these 5 participants. The Wilcoxon *T* test for dependent samples demonstrated a significant difference in pre-test and post-test scores (*Z*=.031), which was consistent with the results of the paired samples *t*-test.

In addition to the overall pre-test and post-test scores, the BESAA includes Appearance, Weight, and Attribution subscales. A paired samples *t*-test was used to compare the BESAA-Appearance scores for the pre-test and post-test scores. There was not a significant difference in the pre-test (*M*=26.40, *SD*=14.311) and post-test (*M*=36.00, *SD*=5.831) values for the appearance subscale; *t*(4)= -2.418, *p*=.073. Assuming this data reflects a true large effect size (*d*=1.0818), to obtain power of 0.80 a sample size of 9 individuals would be necessary. The Wilcoxon *T* test for dependent samples revealed a significant difference in pre-test and post-test scores (*Z*=.031) which was not demonstrated with the paired samples *t*-test.

A paired samples *t*-test was used to compare the BESAA-Weight scores for the pre-test and post-test scores. There was a significant difference in the pre-test (*M*=12.80, *SD*=9.602) and post-test (*M*=24.20, *SD*=8.871) values for the weight subscale; *t*(4)= -3.594, *p*=.023. Data analysis revealed a large effect size (*d*=1.6077) and a power of

0.7659 was obtained with data from these 5 participants. Additionally, the Wilcoxon *T* test for dependent samples demonstrated a significant difference in pre-test and post-test scores (*Z*=.031) which was consistent with the results of the paired samples *t*-test.

A paired samples *t*-test was used to compare the BESAA-Attribution scores for the pre-test and post-test scores. There was not a significant difference in the pre-test (*M*=11.40, *SD*=4.336) and post-test (*M*=15.20, *SD*=2.168) values for the appearance subscale; *t*(4)= -1.727, *p*=.159. Assuming this data reflects a true moderate effect size (*d*= 0.7725), to obtain power of 0.80 a sample size of 16 individuals would be necessary. Additionally, the Wilcoxon *T* test for dependent samples did not reveal a significant difference in pre-test and post-test scores (*Z*=.188) which was consistent with the results of the paired sample *t*-test.

Program Questionnaires

Based on the lack of participation, as described in the data collection section above, the program questionnaires from the current academic year (2011-2012) of the GEP and GDC programs were not analyzed.

Archival Data

GEP Archival Data. The post-test data from both the 2009-2010 (Year 1) and 2010-2011 (Year 2) cohorts were analyzed with a Cronbach's alpha to determine the internal consistency of each questionnaire (Year 1: *N*=7, α=.907; Year 2: *N*=18, α=.951).

The pre-test and post-test data for each academic cohort was also subjected to an independent sample *t*-test to determine if there was a statistical difference between the scores at the beginning and end of the program (See Table 2). Data for each subject was

summed and averaged, and no subjects were excluded due to missing data. An independent samples *t*-test was used to compare the pre-test and post-test scores for the Year 1 cohort. There was not a significant difference in the scores for the pre-test (*M*=3.958, *SD*=0.524) and post-test (*M*=3.969, *SD*=0.436) values; *t*(35)= -0.062, *p*=.951. Data analysis revealed a minuscule effect size (*d*=0.0223). An analysis of power indicated that the sample size would need to increase to over 30,000 individuals to to reach a power of 0.8 with this effect size. An independent samples *t*-test was used to compare the pre-test and post-test scores for the Year 2 cohort. There was not a significant difference in the scores for the pre-test (*M*=4.352, *SD*=0.592) and the post-test (*M*=4.361, *SD*=0.619) values; *t*(45)= -0.054, *p*=.957. Data analysis revealed a minuscule effect size (*d*=0.0161). An analysis of power indicated that the sample size would need to increase to over 60,000 individuals to to reach a power of 0.8 with this effect size.

Qualitative data for the GEP was analyzed for themes and categories were reviewed by an independent rater for clarity and consistency. A total of eight questions across two academic cohorts were analyzed. Questions addressed several topics including the reasons why participants joined the program, aspects they most enjoyed about the program, lessons learned/areas of growth, and feedback for program improvement. Categorical themes were identified for the responses for each question and the full results, including selected quotations, are summarized in Table 3.

When asked why they joined the GEP program, a majority of responses fit into the categorical theme of having fun (42%) with additional responses indicating factors of recruitment (17%) and goals of self-improvement (17%). When asked what they

appreciate most about the GEP program, a majority of participants commented on the mentorship aspects of the program (33%) followed by themes of personal growth (17%), self-expression (8%), and specific activities (8%). On a related question targeting the aspects of the program that participants like the best, the majority of participants specified specific activities including the potluck, fashion show, games, and sleepover (68%) followed by aspects of social connection (23%). Two questions pertained to lessons learned during the program with respondents identifying themes of self-assertion, confidence, and social relationship as the top three categories for each of these questions (Self-assertion, 24% and 16%; Confidence, 15% and 32%; Social Relationships, 15% and 8%). Additional themes for these questions included self-awareness (15%), self-acceptance (11%), body image (9%), communication skills (4%), and problem solving skills (4%). When participants were asked to indicate how they feel in the GEP program, themes related to confidence (22%), safety and security (22%), acceptance (16%), self-esteem (16%), and self-expression (16%) emerged. Two questions asked participants to comment on specific ideas for improvement and/or general suggestions for the program. A majority of responses regarding specific recommendations indicated a desire for additional specific activities within the program (67%), followed by themes relating to academics (14%). On the item requesting general comments, nearly half of the responses indicated themes of program satisfaction (45%), followed by suggestions for additional activities (9%), suggestions pertaining to leader skills/characteristics (9%) and comments regarding the social relationships within the program (5%).

GDC Archival Data. The GDC questionnaire was initially analyzed with a Cronbach's alpha to determine the internal consistency of the measure (*M*=79.31; *SD*=9.15, α=.929). A review of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy suggested that the data was factorable (*KMO*=.689). Following these preliminary analyses, the GDC data was subjected to Principal Axis Factoring using three iterations and Varimax rotation (See Table 4). This analysis resulted in three factors that explain a total of 65% of the variance for the entire questionnaire (See Table 5).

The first factor was labeled Empowerment due to the correlation with the following items: *It motivates me to do well in other areas of my life, I learned leadership skills in class*, *I learned how to communicate positively with girls my age in dance*, *Dance helped me accept other people*, *Dance helped my self-discipline and focus*, *I learned never to say "I can't do it",* and *Dance helped me believe in myself*. The first factor explained 47% of the variance and had sufficient internal consistency to be considered a subscale (α=.857).

The second factor was labeled Program Satisfaction due to the correlation with the following items: *I think other girls my age should attend the [GDC]*, *I look forward to going to dance class every week*, *I feel like I have a voice in dance class*, *It helped me get along with other girls my age, Dance class helps me express myself*. The second factor explained 10% of the variance and had sufficient internal consistency to be considered a subscale (α=.888).

The third factor was labeled Confidence due to the correlation with the following items: *Dance taught me not to be afraid when I am in front of an audience*, *I learned*

about teamwork and cooperation, *It helped me feel better about myself*, *Dance increased my self confidence*, *it taught me to always try my hardest*, and *Dance made me hopeful with what I want to do with my life*. The third factor explained 8% of the variance and had sufficient internal consistency to be considered a subscale (α=.866).

Qualitative data for the GDC was analyzed for themes and reviewed by an independent rater for clarity and consistency. A total of seven questions were analyzed from the two academic cohorts. Questions addressed several topics including how participants feel in/during GDC, aspects they liked best and least about the program, and lessons learned/areas of growth. Categorical themes were identified for the responses for each question and the full results, including quotations, are summarized in Table 6.

When asked what they liked best about the GDC program, a majority of responses indicated themes relating specifically to the class (54%), followed by themes related to performing (13%), and social relationships (11%). When asked what they liked least about the GDC, participants indicated themes relating to physical drills (38%) and disrespect by the other girls (19%). Two questions focused on how participants felt during the GDC. A majority of responses for both of these questions related to a theme of positive emotions (75% and 57%). Additional themes for these questions included social relationships (15% and 2%), self-expression (10% and 9%), physical activity (9%), and self-esteem (9%). Two questions addressed changes that participants have seen during their participation in the GDC and things they have learned about themselves. A prominent theme of confidence emerged (30% and 22%), as well as themes related to dance skills (22% and 15%), self-awareness (17%), social relationships (13% and 13%),

pleasure/enjoyment (9%), perseverance (9%), self-esteem (9% and 6%), and body-image (3%). A related question asked participants to indicate how the GDC class helps them and themes of self-expression (35%), social relationships (24%), personal improvement (17%), self-esteem (7%) and physical activity (7%) emerged.

Discussion

Significant Findings

Self-Esteem and Body-Image. Five participants in the GEP and GDC classes completed self-report measures for Self-Esteem and Body-Image at the beginning and end of the academic year. Despite the small sample size, data analysis revealed large effect sizes for two of the body-image analyses, which indicates that there was a statistically significant increase in self-reported body-image across the academic year. Specifically, participants reported higher levels of overall body-image and higher levels of weight satisfaction after participating in the GEP and GDC classes for 10-months. Possible explanations for this increase in reported body-image may include physical effects related to weight loss and/or increased muscle tone, and/or psychological factors related to feelings of competence and mastery of one's body while dancing. Additionally, the educational components of the GEP program, including the topic of media literacy which focuses on dispelling messages related to an unrealistic thin ideal, may offer an explanation for why the weight subscale demonstrated change over time.

Two additional body-image subscales did not reveal a statistically significant difference; however, the effect sizes suggest that further consideration is warranted. Large effect sizes were obtained on a subscale measuring satisfaction with general

appearance, suggesting that statistical significance may be reached if the sample size increased to a total of nine participants. A moderate effect size was found on an additional subscale relating to the perception of others' attributions of one's appearance and body. These results suggest that this subscale may reach a level of statistical significance if the sample size increased to 16 participants.

Participants in the GEP and GDC programs did not report a statistically significant increase in their self-esteem across the academic year. However, moderate effect sizes were obtained, suggesting that statistically significant findings may be obtained if the sample size increased to a total of 19 participants.

These results indicate that self-report of adolescent girls' overall body-image and weight satisfaction was higher after participating in the 10-month GEP and GDC programs. Additionally, the results suggest a general trend of increasing self-esteem, appearance satisfaction, and improved perception of others' attributions over the course of the 10-month program. The obtained effect sizes suggest that by increasing the sample size to 19 participants, a statistically significant difference may be obtained for self-esteem and each of the body-image subscales after participating in the GEP and GDC program for an academic year.

These results support the research hypothesis that participation in a community-based dance program is correlated with an increase in self-reported body-image satisfaction; however, it is important to note that these results cannot speak to the relationship of the GEP and GDC components separately. Therefore, these results cannot differentiate whether participation in one component, or the combination of participation

in both programs, was associated with the increased ratings on the measure of body-image. Despite these limitations, these research findings are supported by existing studies that suggest exercise is a protective factor against body dissatisfaction in adolescents (Lepage & Crowther, 2010; McCabe et al., 2006) as well as additional studies that report dance interventions are beneficial for individuals who are identified as having high levels of body dissatisfaction (Burgess et al., 2006).

While the research results did not statistically support the research hypothesis that participation in a community-based dance program would result in increased reports of self-esteem; the moderate effect sizes indicate that the research hypothesis may be supported if the sample size was increased to 19 participants. Despite the inability to support the research hypothesis, this lack of significance is consistent with existing studies that have repeatedly failed to demonstrate gains with exercise-based interventions for adolescents (Bush et al., 2010; Lepage & Crowther, 2010; McCabe et al., 2006). In addition to the impact of the small sample size, this failure to demonstrate gains in the area of self-esteem may reflect an instrumental limitation. The majority of participants in this sample self-identified as Hispanic/Latino and some authors have criticized the Rosenberg Self-Esteem Scale for having an individualistic basis that may not consistently measure the construct for individuals from more collectivistic cultures (Coppens et al., 2006). Additionally, there may have been factors unrelated to the program participation and outside of the researchers control that may have impacted the participants self-esteem.

Archival Data. Archival data for the GEP was analyzed according to cohort to determine if the program questionnaires demonstrated change across pre-test and post-test measures. While the questionnaires from each academic cohort demonstrated strong internal consistency, participants in the GEP program did not report significant differences in the program questionnaires between the beginning and ending of the GEP program for either year analyzed. Additionally, the effect sizes obtained for both academic cohorts were almost imperceptibly small, indicating that a moderate increase in sample size would not reveal statistically meaningful findings. This lack of significant findings may reflect a shortcoming of the instrument used, in that the questions may not adequately assess for change over time. Alternatively, given the personality and background differences in program participants and staff, the GEP program may not have an effect across all grades and participants. Finally, this lack of significant difference may be reflective of a social desirability bias, as analysis the qualitative data suggests a high level of program satisfaction across participants. This finding suggests that while the existing method of program evaluation for the GEP may be indicative of overall program satisfaction, the questionnaire may not be sufficient for providing information regarding the growth and/or progress of participants across the academic year.

Archival data for the GDC was analyzed with a factor analysis to determine if the questionnaire items loaded based upon thematic constructs. The GDC questionnaire was shown to have strong internal consistency, indicating that this is a true scale. Additionally, three factors were identified that each had strong internal consistency, suggesting that they are true subscales. The items included in each of these subscales

were reviewed for themes, and the constructs were identified as Empowerment, Program Satisfaction, and Confidence. These thematic categories are consistent with various aspects of self-esteem, and appear to be consistent with the overarching GEP program goals of leadership and empowerment, as well as the GDC goals of teamwork, creativity, self-confidence, and discipline. Based on this information, the existing method of program evaluation for the GDC appears to be sufficient in identifying participant's self-report for factors including Empowerment, Program Satisfaction, and Confidence.

Qualitative archival data was also reviewed from open-ended questions contained in the GEP and GDC questionnaires. An analysis of these responses revealed several prominent themes across the two programs. When asked to identify areas of growth and lessons they had learned throughout participation the program, recurrent themes emerged relating to Self-Esteem, Social Relationships, Confidence, and Self-Assertion; all areas that are reflective of the programmatic goals. In addition to meeting the programatic goals, gains in these areas are particularly relevant given the social pressures and gender issues faced by adolescent girls. Furthermore, these findings are consistent with prior research in which the development of new skills and improved social relationships were noted as program strengths (Beaulac et al., 2010). Additional themes pertained to the development of dance skills and physical activity, a sense of pleasure and enjoyment, self-acceptance, body image, perseverance, and personal improvement. These thematic results suggest that while the research measures did not demonstrate a statistically significant increase in self-esteem, participants described themselves as experiencing an increased sense of self-worth, confidence, and empowerment following participation in

the GEP and GDC programs. The relevance of these emergent themes cannot be overstated, as these themes were drawn from direct quotations of the adolescents' self-assessment of the benefits of participating in the GEP and GDC programs.

In addition to the significance of each of these components of this research study, the impact of the collective results should be taken into consideration. Specifically, while the improvements in body-image and trend towards increased self-esteem were obtained from a small sample, these results are further supported by the findings of the qualitative data from both the GEP and GDC. Additionally, while the research literature evaluating adolescent dance and empowerment programs has thus far been limited, the findings of this study are further corroborated by the existing literature. Specifically, exercise participation has been shown to be a protective factor against poor body-image (Lepage & Crowther, 2010; McCabe et al., 2006). Furthermore, participation in dance can lend a sense of mastery over one's body, which has been linked with improved self-esteem and body-image (Block, 2001). This triangulation of information and methods provides greater support for the findings of this study and reflects a unique contribution to the limited body of literature by being the first-known study to evaluate a long-term, community-based, empowerment and exercise program for increasing self-esteem and body-image amongst adolescent girls.

Implications

Adolescent girls face numerous physical, emotional, social and cognitive changes, including weight gain during puberty, that can cause an adolescent to view herself as even more discrepant from the Western thin-ideal. In turn, these perceived discrepancies

can pose a threat to the self-esteem and body-image of adolescent girls. Existing research speaks to the potential consequences of low self-esteem and body-image during adolescence, including depression, suicide, eating disorders, anxiety, substance use, poor academic outcomes (Caprara et al., 2005; Zimmerman et al., 1997). Longitudinal studies have further demonstrated that body dissatisfaction is predictive of low self-esteem, and is associated with an increased risk for eating disorders and mental health conditions including depression (Mellor, Fuller-Tyszkiewicz, McCabe & Ricciardelli, 2010; Mond, van den Berg, Boutelle, Hannan & Neumar-Sztainer, 2011; Neumark-Sztainer, Paxton, Hannan, Haines, & Story, 2006; Paxton, Neumark-Sztainer, Hannan, & Eisenberg, 2006). Additionally, body dissatisfaction has also been associated with an increase in poor health behaviors including binge eating and unhealthy dieting, as well as a decrease in positive health behaviors such as engaging in physical activity (Neumark-Sztainer et al., 2006). When considering the negative consequences associated with poor self-esteem and body-image, a community program that focuses on improving self-esteem and body-image could reduce the incidence of the physical and mental health concerns associated with poor self-esteem and body-image; thereby improving the overall well-being of youth who participate in these programs.

While adolescence is often seen as a time of decreasing self-esteem and body-image for adolescent girls, participants in the GEP and GDC programs reported an increasingly positive view of their bodies and weight over the course of the academic year. These preliminary findings suggest that participation in the GEP and GDC programs may counteract the decline in body-image and self-esteem that is commonly

seen amongst adolescent girls (Zimmerman et al., 1997). These preliminary findings are supported by the research literature that indicates that exercise and empowerment programs can be helpful in improving self-esteem and body image. Additionally, while numerous studies focusing on adolescents have failed to demonstrate significant findings, the design of the GEP and GDC programs inherently addresses many of the limitations stated in the existing research. Specifically, the GEP and GDC programs provide a long-term, non-competitive, gender-segregated, intervention program that incorporates activities and physical exercise that the girls identify as enjoyable, in a community setting. These features of the GEP and GDC program make it an ideal program for further evaluation of the effects of empowerment and dance programs on the self-esteem and body-image of adolescent girls.

Furthermore, if participation in community programs such as the GEP and GDC provides protective factors against decreasing self-esteem and body-image, these community based programs may have the potential to reduce the incidence of both physical and mental health conditions that are associated with poor self-esteem and body-image. This may be particularly true for adolescents from families with lower socioeconomic status who may otherwise be unable to have their child participate in a youth development or dance program. Considering the vast array of empowerment and exercise programs provided to adolescents nationwide, findings such as these could provide empirical support that has thus far been absent in the research literature.

In addition to the potential implications for adolescent participants, the present research study provides several implications for the community-based program that

provided the research data. Specifically, the program director will be provided with a summary of the research findings, including the areas of strength and suggestions for further development. While the program has thus far been spearheaded by the program director, suggestions will be made to further develop the curriculum, perhaps with the development of a manual outlining the topics and tasks to be covered, so that the results may be further replicated by other group leaders and/or program directors.

As indicated previously, the findings of the qualitative and quantitative data were corroborated by the existing literature; this supports the efforts of the program and indicate that the overarching program goals and the gains identified by the participants were supported by empirical literature. With this empirical evidence attesting to the benefits associated with participation in the GEP and GDC programs, the organization may be able to secure additional funding to support this program; perhaps resulting in an expansion of similar programs within their regional and/or nationwide network.

Limitations

Validity concerns. While a total of 17 participants consented to the study and completed pre-test measures, only 5 participants remained active in the GEP and GDC programs at the conclusion of the academic year. According to the program director, the attrition rate during the 2011-2012 academic year was unusually high; presumably due to programatic challenges related to the unplanned 6-month absence by the program director (personal communication). Despite the small sample sizes, which can threaten internal validity, data analysis indicated moderate-to-large effect sizes for all of the study measures. Furthermore, the power analysis indicated that significant results across all

measures and subtests may be reached if the sample size increased to 19 participants. Additionally, the findings of the qualitative results were further strengthened by the triangulation with the qualitative data and existing research literature.

While random assignment would improve the internal validity, the existing structure of the community-based programs limited the study to a quasi-experimental design (Kazdin, 2003). The adolescents self-selection for group and research participation may have led individuals with particular characteristics to complete the study measures. In future evaluations, a nonequivalent control group design (GEP-alone and GEP+GDC) would allow for an evaluation of group differences and would strengthen internal validity (Kazdin, 2003; Mertens, 2010).

The use of a convenience sample posed a threat to external validity because the participants who completed the study measures may not be representative of the larger population (Kazdin, 2003). Specifically, the low-cost program may attract a higher percentage of low-SES members and draws participants from a limited geographic location. Future studies with larger sample sizes would benefit from an analysis to determine if SES or other demographic factors correlate with self-esteem or body-image

Based on the design of the existing program, many of the members participate in multiple programs at the same community facility. To control for multiple-treatment interference, future studies could include an analysis of a comparison group (GEP-alone) and intervention group (GEP + GDC). However, as mentioned previously, the limited sample size did not allow for this comparison as none of the research participants were involved in GEP-alone.

Participant characteristics. As the participants were minors, caution was exercised in addressing potential ethical concerns by obtaining parental consent, participant assent, and informing both parents and participants of the limitations to confidentiality (Mertens, 2010).

Researchers have raised concerns that the construct of self-esteem may not be consistent for ethnic minority members, particularly for individuals who hold strong collectivistic values that are not well-represented in Western measures of self-esteem (Coppens et al., 2006). However, the RSE continues to be a widely used measure of self-esteem including use with multi-ethnic samples of adolescents and young adults (Armenta & Hunt, 2009; Bean & Northrup, 2009; Eccleston & Major, 2006; Kurpius et al., 2008; Phinney et al., 1997; Smokowski, Bacallao, & Buchanan, 2009; Smokowski, Rose, & Bacallao, 2010; Umaña-Taylor & Fine, 2001; Umaña-Taylor & Updegraff, 2007; Umaña-Taylor, Vargas-Chanes, Garcia, & Gonzales-Backen, 2008; Zamboanga, Schwartz, Jarvis, & Van Tyne, 2009). Furthermore, the RSE had "acceptable internal consistency...for each racial/ethnic group" in a study designed to evaluate the appropriateness of such measures with European American, Latino, and Native American young adults (Kurpius et al., 2008, p. 10). Considering the low inclusion rates of ethnic minority members in psychological research (American Psychological Association, 2003), the ethnically diverse sample is noted as a strength of this study.

Future Directions

To provide further support and empirical evidence for the benefits of participating in the GEP and GDC programs, the community program should be encouraged to

continue evaluating the effects of participation on the self-esteem and body-image of the adolescent girls who join the GEP and/or GDC. Specifically, this preliminary study suggests that results would be strengthened by collecting data from a larger sample of participants to determine if the effect sizes and trends demonstrated in this pilot sample are consistent with the larger population of program participants. Additionally, recommendations will be made to include comparisons for participants in GEP-alone as compared to GEP+GDC to evaluate the relative and/or cumulative impact of the dance component of the program.

In addition to these research directions for the program, researchers in the field should be encouraged to continue evaluating the effects of empowerment and exercise programs in the community as a means of improving the overall well-being of adolescents. While the theoretical research is highly supportive of the impact of empowerment and/or exercise programs on the well-being of adolescents, the empirical evidence continues to be lacking. With this in mind, researchers should be encouraged to seek and evaluate existing empowerment and/or dance programs in the community, particularly when, like the GEP and GDC, these programs address the limitations that have been identified in the existing literature (e.g. long-term program, gender-specific classes, activities that are enjoyable, etc).

Conclusion

The described pilot study investigated the effects of participation in an empowerment and dance program on the self-esteem and body-image of adolescent girls. When considering the lack of existing empirical research regarding the effects of

empowerment and dance programs for adolescent girls, this pilot study addresses a gap in the existing literature. For the current study, five participants completed the pre-test and post-test measures, revealing a significant increase in overall body-image and weight satisfaction at the end of the 10-month program. Additionally, while the results did not reach a level of statistical significance, a moderate-to-large effect size was obtained for a measure of self-esteem, and two additional body-image subscales. Considering the negative consequences of poor body-image and low self-esteem, the potential implications of a program that counteract the declines often seen at this age is not inconsequential.

In addition to the results of the quantitative measures, several prominent themes emerged from a qualitative review of archival data that asked about participants' experience in the empowerment and dance programs. Across both the empowerment (GEP) and dance (GDC) programs, participants reported overarching themes related to social relationships, confidence, self-expression, body-image, self-esteem, and enjoyment of the program. In combination with the quantitative analyses, these content themes indicate that the participants in the GEP and GDC programs self-identify as gaining skills in these areas of critical importance. Considering the myriad of social pressures faced by adolescent girls in today's society, and the existing literature outlining the negative consequences of poor self-esteem and body-image, programs that may instill a sense of confidence, competency, and social connection should not be overlooked or ignored.

When taken in consideration with the existing research literature, the findings of the present study suggest that programs such as the GEP/GDC may have a significant

impact on the physical, psychological, and emotional well-being of adolescent females. Additionally, community-based programs have a unique opportunity to provide outreach and services for individuals who may otherwise be unable to participate in similar empowerment and/or dance programs. Programs such as the GEP/GDC appear to meet many of the limitations identified by previous research studies by providing a long-term program, allowing for easy access within a community-based setting, including gender-specific activities with same-gender leaders, and incorporating physical activities that are reported as enjoyable by the adolescents. When considered in combination with the high levels of program satisfaction, this author believes that programs such as the GEP/GDC should be given a greater degree of attention by researchers to further demonstrate the gains that can be made, as well as to provide empirical evidence to support the continued allocation of funds for these types of community programs.

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TABLE 1

Self-Esteem (RSE) and Body-Image (BESAA)- Paired Sample t-test

Measure (N=5)	Mean		SD		Significance (2-tailed)	Effect Size (Cohen's d)
	Pre	Post	Pre	Post		
RSE	23.00	27.40	8.000	3.578	p=.196	0.6933
BESAA	50.60	75.40	23.458	16.365	p=.013	1.9190
BESAA-Appearance	26.40	36.00	14.311	5.831	p=.073	1.0818
BESAA-Weight	12.80	24.20	9.602	8.871	p=.023	1.6077
BESAA-Attribution	11.40	15.20	4.336	2.168	p=.159	0.7725

TABLE 2

GEP Program Questionnaires- Independent Sample t-test

Cohort	N		Mean		SD		Significance (2-tailed)	Effect Size (Cohen's d)
	Pre	Post	Pre	Post	Pre	Post		
2009-2010 (44 items)	25	12	3.958	3.969	0.524	0.436	α=.951	d=0.0223
2010-2011 (18 items)	26	21	4.352	4.361	0.592	0.619	α=.957	d=0.0161

TABLE 3

GEP Program Questionnaires- Qualitative Analysis

What are some things you learned in [GEP] so far that can help you? 2010-2011 (N=20)			
Theme	Count (25)	Percentage	Sample Quotes
Self-Confidence	8	32	it is ok to be yourself; to be confident; have self confidence
Self-Assertion	4	16	speak up and face my problems; always stand up for yourself
Relationship/ Social Skills	2	8	how to deal with people, what I need to put as my 1st priority
Communication	1	4	how to communicate
Problem Solving	1	4	how to deal with problems
Other	9	36	dk, n/a, everything happens for a reason
Besides having fun, what do you appreciate most about [GEP]? 2009-2010 (N=12)			
Theme	Count (12)	Percentage	Sample Quotes
Mentorship	4	33.3	the help they give; the staff because they respect you; how they help and give advice
Knowledge/ personal growth	2	16.7	it teaches you so much; it teaches you about girl stuff
Self-Expression	1	8.3	being able to express yourself
Activities	1	8.3	participating in the events
Other	4	33.3	everything; the respect; my family

(continued)

List 3 things you learned about yourself in/during [GEP]
2010-2011 (N=19)

Theme	Count (46)	Percentage	Sample Quotes
Self-assertion	11	23.9	stand up for myself; don't be scared to express yourself; making goals for myself is good
Confidence	7	15.2	always believe in yourself; to be confident; I can do anything I want with my life
Social relationships	7	15.2	trusting my friends; I'm not shy as I used to be; I am good at making friends
Self-awareness	7	15.2	I'm loved; I love to sing; I'm funny, I'm positive; I'm nice not mean
Self-acceptance	5	10.9	that I love myself; I don't care what others think; no one's perfect not even celebrities
Body Image	4	8.7	that I am pretty; be confident about how you look
Other	5	10.9	dk, n/a, have fun, everything happens for a reason, make good choices in life

What made you decide to join this program?
2009-2010 (N=12)

Theme	Count (12)	Percentage	Sample Quotes
Fun	5	41.7	it's fun; it sounded interesting; my friends told me how great it was
Recruitment by leader	2	16.7	[Director] came to my school
Self-Improvement	2	16.7	I wanted to know more about girl stuff; to become a different person
Other	3	25	a lot of things; the trips & leaders

(continued)

Do you have any ideas and/or suggestions for [GEP] to make it better? 2010-2011 (N=21)			
Theme	Count (21)	Percentage	Sample Quotes
Activities	14	66.7	do the sleepover again; more field trips, more games; we should go swimming
Academics	3	14.3	more homework time; there should be longer homework and newer computers
Other	4	19	no, not really; nope; you should manage time better
Finish this sentence, When I am in [GEP] I feel... 2010-2011 (N=21)			
Theme	Count (32)	Percentage	Sample Quotes
Confidence	7	21.9	confident; confidence in myself; like I can be myself
Safety/Security	7	21.9	safe; free and I'm not afraid to fall
Acceptance	5	15.6	feel loved; comfortable to be who I really are; I can be myself the whole time
Self-Esteem	5	15.6	awesome; beautiful, strong; really happy who I am
Self-Expression	5	15.6	feel free to share what's on my mind; free to speak; that I can talk about my problems and someone's listening
Other	3	9.4	sometimes bored; happy; alive

(continued)

Anything else you want to share with the [GEP] staff? 2010-2011 (N=18)			
Theme	Count (22)	Percentage	Sample Quotes
Program Satisfaction	10	45.5	it is an amazing program; you rock; I like [program]; keep doing what you're doing because it's great; no, I love it just the way it is
Additional Activities	2	9.1	make it more fun with games; more fun activities (sleepovers)
Leader Skills/ Characteristics	2	9.1	will you please relax when we get near shows; manage time better
Social Relationships	1	4.5	I think there should be a part of [program] for talking to friends
Other	7	31.8	no, n/a, dk, nothing
What part of the program did you like best? 2010-2011 (N=20)			
Theme	Count (22)	Percentage	Sample Quotes
Specific Activities	15	68.2	sleepover; games; the potluck; fashion show & showcase; games, shows, workshops
Social Connection	5	22.7	I enjoy being with my friends; making new friends
Other	2	9.1	dk; problems

TABLE 4

GDC Program Questionnaires- Factor Analysis

GDC: Rotated Factor Matrix	Factor		
	1	2	3
21 It motivates me to do well in other areas of my life	.752		
3 I learned leadership skills in class	.679		
6 I learned how to communicate positively with girls my age in Dance	.677		
11 dance helped me accept other people	.619		
12 dance helped my self-discipline and focus	.541		
20 I learned to never say "I can't do it"	.496		
7 Dance helped me believe in myself	.432		
18 I think other girls my age should attend the [GDC]		.824	
16 I look forward to going to dance class every week		.795	
22 I feel like I have a voice in dance class		.707	
17 It helped me get along with other girls my age		.681	
1 Dance class helps me express myself		.445	
14 dance taught me not to be afraid when I am in front of an audience			.736
8 I learned about teamwork and cooperation			.725
15 It helped me feel better about myself			.682
9 Dance increased my self confidence			.648
19 It taught me to always try my hardest			.501
5 Dance made me feel hopeful with what I want to do with my life			.446

TABLE 5

GDC Program Questionnaires- Internal Consistency

N=42	N of items	Mean	SD	Variance Explained	Cronbach's alpha
Total	18	79.31	9.145	65.38%	α=.929
Factor 1	7	30.02	4.387	47.09%	α=.857
Factor 2	5	22.17	3.068	10.34%	α=.888
Factor 3	6	27.12	2.957	7.94%	α=.866

TABLE 6

GDC Program Questionnaires- Qualitative Analysis

How does our dance class make you feel? 2009-2010 (N=19); 2010-2011 (N=23)			
Theme	Count (54)	Percentage	Sample Quotes
Positive Emotions	31	57.4	good; happy; really excited; awesome, I love to dance
Physical Activity	5	9.3	energetic, tired, healthier; strong
Self-Esteem	5	9.3	empowering; proud; dance makes me feel special
Self-Expression	5	9.3	like I have a voice; it makes me feel free because you express what's inside
Social Relationships	1	1.9	it makes me feel happy because I see my friends
Other	7	13	I guess ok; free; I forget my bad days at school; like I can dance whenever I want
What part of dance class did you like the least 2010-2011 (N=21)			
Theme	Count (21)	Percentage	Sample Quotes
Physical Drills	8	38.1	when we do pushups; when we exercise; warm-ups
Disrespect	4	19	when the girls don't listen so makes the class longer; when everybody starts to talk
Other	9	42.9	walking here; sometimes I feel lonely; nothing; I don't know

(continued)

List 3 things you learned about yourself in dance class
2009-2010 (N=18); 2010-2011 (N=23)

Theme	Count (78)	Percentage	Sample Quotes
Confidence	17	21.8	confidence; I can do it; self-confidence, not to be shy
Self-Awareness	13	16.7	dancing is part of my life; I am strong, I am successful; happy, talented, useful
Dance Skills	12	15.4	dance better; I can dance; I have rhythm; good at dancing
Social Relationships	10	12.8	be with my friends; friends; I can cooperate with girls my age
Pleasure/ Enjoyment	7	9	have fun; enjoy yourself; have fun once in a while
Perseverance	7	9	try your best, don't give up; to never say never; try your hardest
Self-Esteem	5	6.4	believe in myself; be yourself; I am cool, I am great
Body-Image	2	2.6	not be embarrassed of your body; that I am a beautiful person
Other	5	6.4	nothing; respect, courage; character, sportsmanship

Finish this sentence: When I am in dance class, I feel...
2009-2010 (N=19)

Theme	Count (20)	Percentage	Sample Quotes
Positive Emotions/Self Esteem	15	75	very happy and relaxed; good; great and excited and really important; like I can do anything
Social Relationships	3	15	happy to have the best teacher; surrounded by people that support me
Self-Expression	2	10	free to express myself; I can express myself

(continued)

What changes have you seen in yourself since you joined our dance class? 2009-2010 (N=19); 2010-2011 (N=23)			
Theme	Count (46)	Percentage	Sample Quotes
Confidence	14	30.4	I'm more confident; not being afraid to dance in front of people
Dance Skills	10	21.7	I got better at dancing; I know how to dance; more dancing
Social Relationships	6	13	I am more social; to be kind; talking to other girls
Self-Esteem	4	8.7	I'm not as shy anymore; I can express myself more
Other	12	26.1	I don't know; I have responsibility; more free expression; a lot
Finish this sentence... Dance at the [Program] helps me... 2010-2011 (N=21)			
Theme	Count (29)	Percentage	Sample Quotes
Self-expression	10	34.5	express myself; express my life; express my inner emotions
Social relationships	7	24.1	make new friends; meet girls; being friends with adults
Personal Improvement	5	17.2	be a better person; stay out of trouble; improve my skills
Self-Esteem	2	6.9	be confident and put my attitude in dance; be more confident
Physical Activity	2	6.9	stay active during the week; learn new dances
Other	3	10.3	with everything; have a lot of fun

(continued)

What part of dance class did you like the best?
2009-2010 (N=20); 2010-2011 (N=23)

Theme	Count (46)	Percentage	Sample Quotes
Class	25	54.3	dancing; the choreography; learning new dances; practicing
Performances	6	13	performing
Social relationships	5	10.9	being with my friends; seeing friends; get time with my friends
Other	10	21.7	when we warm up; everything ‘cuz it’s fun; All, I can’t say what my best part of dance class is

APPENDIX A: Review of the Literature

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
Adame, Radell, Johnson & Cole, 1991	Identifying correlations between physical fitness, body image, and locus of control among dancers and nondancers	Female College freshman: dancers (n=39) and non-dancers (n=120)	Hall (1986) Physical Fitness Test Profile; Winstead and Cash (1984) Body Self-relations questionnaire (BSRQ); Adult Nowicki-Strickland Locus of Control Scale	Correlational: physical fitness, body image, and locus of control among dancers and non-dancers	"Experiences in dance have been described as producing positive changes in individuals' body images" p. 91 -studies have had mixed results when looking at body image and participation in dance (p. 91) The BSRQ "assesses perceptions of body image in three domains: physical appearance, physical fitness, and physical health." p. 92 -difference in expectations for body shape/weight between professional ballet (source of previous research) and study participants -Findings: dancers were more physically fit and more internal LOC, however, no correlation between dance experience and physical fitness, BSRQ, or LOC. Potential explanation-dancers may become more aware of bodies/ imperfections (p. 94) -among dancers, those who were more physically fit had more internal LOC, and more positive BSRQ on physical fitness and health domains (p. 95) "However, given the scarcity of empirical research and the diverse findings of the few studies investigating the relationship of dance to physical performance, body image, and personality, more research certainly seems warranted." p. 95

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
Block, 2001	Description of the author's work blending D/MT with cultural relational psychology (how culture places expectations on youth behavior) and work with adolescents	n/a	n/a	theoretical, review of literature and summary of personal experience	"It is typically not difficult for us to engage the boys in a variety of physical activities> however, the girls exhibit self-conscious behaviors, and report feelings of inadequacy or apathy toward activities that developmentally they should have had no problem doing. But, interestingly, they feel confident dancing." p. 118 -Western culture emphasizes independence & separation, however, girls are "encouraged to attend to the affective states of others and to express themselves in nonaggressive ways." p. 118 "Most girls and women feel a connection with dance." (formally, informally, performance, privately,exercise or enjoyment) p. 119 "Dance can be of value psychologically to girls and women...." regardless of setting p. 119 "...dance can be empowering because cultural, relational, and bodily connections are made via the interactions with others through a creative process that can be transforming." p. 119

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
Burgess, Grogan & Burwitz, 2006	"predicted that female adolescents who participated in 6 weeks of aerobic dance would report significant improvements in body image dissatisfaction and physical self-perception scores in contrast to a conventional British physical education swimming program." (p. 59)	50 British schoolgirls 13-14 yrs old who indicated high levels of "body image dissatisfaction" and low levels of physical activity; Caucasian, "lower working class background"; none of students "were talented or even interested sports participants"	Body Attitude Questionnaire (BAQ); Youth Physical Self-Perception Profile (CY-PSPP); Leisure Time Physical Activity Questionnaire (LTPAQ); Height & Weight measurement to calculate BMI	Cross-over design with random assignment, counterbalanced (Aerobic then PE, and PE then Aerobic); Pre/ Mid/Post test self-questionnaires;	"participation in 6 weeks of aerobic dance enhanced body attitudes and physical self-perceptions" (p.63) "data present a particularly strong case for the positive psychological benefits of aerobic dance for female adolescents with a poor image of themselves" (p. 63) "positive psychological response to physical activity might be influenced by the mode of exercise" (p.64) "positive effects on body image and self-worth during the aerobic dance intervention, but these effects were not sustained after the aerobic intervention" (p.65)

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
Bush, Laberge & Laforest, 2010	Description of the "development and implementation of a noncurricular, school-based physical activity promotion program designed for a multiethnic, underserved population of adolescents." . 795	Middle-school students in Montreal, Canada; grade 7= control group (n=137), grade 8= intervention group (n=165)	French translation of the 7 day Physical Activity Recall, and Physical Activity Enjoyment Scale; Frequency of Participation	Quasi-experimental, intervention available to 8th grade students (lunchtime activities); pretest-posttest design	"There is a paucity of studies regarding noncurricular physical activity promotion interventions among adolescents, and even less such research pertaining to underserved youth." p. 79 "...it is necessary to provide readily available, appealing programs that focus on determinants of health, such as physical activity." p. 79 -physical activity declines during adolescence -use of social marketing approach: centered on the populations needs/wants, benefits to population should be understood/emphasized while minimizing the barriers p. 80 (activities should be enjoyable) -girls participated more than boys (which is contrary to research findings) "Perhaps, adolescent girls are less active because the types of physical activities generally offered are not as appealing to girls as they are to boys. In fact, in this study, girls seemed to prefer the dance and gender-segregated activities." p. 85 -current intervention only lasted 16 weeks; "We recommend that future studies of this type be carried out over a minimum of 1 full school year." p. 86 -barriers to physical activity: lack of time after school (ie need to work/ homework) and "competition and a sense that skill is needed" p. 86

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
Capello, 2008	representatives from various countries discuss the challenges/ treatment methods of DMT with at-risk children	Summary of Panel discussion at American Dance Therapy Association	n/a	panelists from different countries discuss treatment by D/MT in their region	-each country lists various physical/psychological disorders that D/MT is used for -Cultural challenges with D/MT (ex. cultures that emphasize performance/ achievement vs. individual expression) -Consideration of the importance of performance
Corneille, Ashcraft & Belgrave, 2005	Examines prevention programs in an African and African American cultural context: seek to provide examples of how to incorporate culture into prevention programs to make them most relevant for the target population	n/a	n/a	Theoretical/ review of literature	"Culturally tailored prevention programs may promote recruitment and retention of participants as well as affect risk and protective factors that influence negative health behaviors." p. 38 -definitions of culture and cultural competence "The majority of prevention programs are deigned to be universally implemented and are based on White, middle-class American values." p. 39-Media messages; hip-hop and sexualized content & focus on appearance (leads to girls' valuing their worth based on appearance) and the negative consequences (specifically in regards to African American females) p. 43"Our belief is that prevention programs will be more effective in attracting and retaining participants, engaging participants, and producing more effective outcomes when cultural elements are woven in.... One challenge in determining the best prevention practices is to discern what aspects of culture are relevant to which target group." p. 45

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DuBois, Lockerd, Reach & Parra, 2003	Gather a consumer perspective on strategies for enhancing self-esteem among adolescents	61 young adolescents (6th & 7th grade)	Global Self esteem scale of the Self-Esteem Questionnaire (used to categorize as "low" or "relatively high")	Qualitative: Focus Group with adolescents; invitation by stratified random selection process	"Currently, there is a recognized need for efforts that specifically target the period of transition from childhood to adolescence.... it is a stage of development that represents a critical window of opportunity to cultivate a strong sense of self-worth in the emerging personality" p. 406 "self-esteem has been an appealing focus for a range of promotive and preventative interventions" p. 406 (difference between healthy self-esteem as opposed to self-esteem from negative behaviors p. 407)"Participants shared the view that anyone in their age group could potentially benefit from involvement in an esteem-enhancement intervention." p. 420 -Adolescents were in favor of long-term programs (more than 1x/week for 6 mo) in informal contexts (community based); activity oriented programs preferred "The views expressed by young adolescents also are consistent with literature indicating a need for attention to unhealthy sources of self-esteem among their age group" p. 424 -SES concerns (not fitting in with peers, lower levels of self-esteem and higher levels of stress compared to peers) P. 425

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Erfer & Ziv, 2006	use of D/MT as means of creating group cohesion D/MT aides in development of body image, self-awareness & awareness of others (p. 238)	5-8 yrs old; inpatient psychiatric hospital; primarily African American & Hispanic	n/a	Case presentation & narrative description of group D/MT	"changes in behavior... included improved impulse control, frustration tolerance, gratification delay, and ability to get along with others." (p. 238) D/MT created cohesion in inpatient group setting to allow group to progress to work on therapeutic goals "body image has a physiological basis" ... "mental image of the body forms the basis of emotional attitudes toward the body" (p. 240)
Farr, 1997	examination of the risks for African American youth and the role of dance in A.A. culture	review of literature/ theoretical	n/a	review of literature; finding of no prior studies on D/MT with African American youth	hip-hop as a means of "channeling aggressive energies into non-violent performances" (p. 185); challenges with black adolescents seeking therapy may be overcome by incorporation of dance as a means of expressing emotion; "dance/movement therapy meets the multicultural requirement that treatment of Black youth integrate expressive outlets inherent in culture" (p. 188)

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Frisen & Holmqvist, 2010	investigation of positive body image during adolescence (Positive Psychology approach)	30 early adolescent Swedish girls and boys (who had shown the highest level of body satisfaction at ages 10 and 13) (taken from an ongoing longitudinal study based on BESAA scores in 97% or above compared to rest of longitudinal sample)	Body Esteem Scale for Adolescents and Adults (BESAA)	Qualitative: semi-structured interviews that were analyzed for themes	-research has been pathology focused, but "examining people's well-being is jus as important as examining their ill-being." p. 205 "the adolescent years are a period when people undergo various dramatic changes (cognitive, social, as well as physical ones) and are often particularly self-conscious" p. 205 "We found it interesting that the vast majority of the adolescents participating in this study were highly physically active, viewing exercise as a natural and important part of their lives.... (In a meta-analysis) exercise was associated with an improved body image (an association that was particularly strong among adolescents)" p. 210 "simply exercising may not be sufficient in order to obtain a positive body image; one also needs to have the "right" motivation for exercising. More specifically, the adolescents in the present study reported that they exercise because they find it joyful and health-promoting and not because it may improve their appearance..." p. 210 "The present study also suggests that adolescents should be encouraged to engage in physical activity on a regular basis, especially in activities that they find joyful."211

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
Graber, Nichols & Brooks-Gunn, 2010	Examines the effects of early puberty on adolescent development and the relation to internalizing/ externalizing problems	n/a	n/a	theoretical/ review of literature	"numerous studies have linked early pubertal timing in girls to elevated rates of a range of internalizing and externalizing behaviors and disorders" p. 255 window of opportunity for prevention programs, "need to promote better coping strategies among pre-adolescents" p. 259
Grieser, Vu, Bedimo-Rung, Neumark-Sztainer, Moody, Young, & Moe, 2006	Researchers sought to "explore ethnic and racial variation in attitudes toward physical activity" among U.S. adolescent females. (p. 40)	African American, Caucasian, and Hispanic middle-school girls from 6 regions across US.	Semi-structured interviews (like & dislike about physical activity; what good/bad things would happen if you did more/less physical activity, is there anything that gets in the way of being more physically active? Physical Activity Checklist (54 activities: sports, recreation & chores)	Mixed Methods: Qualitative & Quantitative (semistructured interviews n=80 and checklists n=130)	"Physical activity levels in girls decline dramatically during adolescence, most profoundly among minorities." p. 40 -physical activity drops in adol, particularly girls; lifestyle habits are formed during this age therefore impt. to address this decline (p. 41) ""...physical activity beliefs differ by gender. Girls have lower self-esteem, perceive lower health status, and view themselves as less athletic than do boys.... These data indicate that girls may benefit from interventions specifically designed for them." p. 41 -Dance was reported as both a common activity and favorite activity across the 3 ethnic groups (p. 46-7) (only 3: running, dance, volleyball were favorite and common; p. 49)

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
Haen & Weil, 2010	Examines the challenges of working with adolescents in group therapy, advocates for use of creative arts therapies	n/a	n/a	review of literature/ theoretical	stage of development is critical period of vulnerabilities for substance use/mental illness (p. 38) "adolescence is rivaled only by infancy in the degree of changes that occur within the body over a relatively short time" P. 39 brain development: amygdala/limbic system further developed than prefrontal cortex/executive functioning: related to adolescent impulsiveness (p. 39-40) adolescents resistant to "therapy" but may be more open to creative/arts approaches p. 41 "The creative arts therapies hold tremendous potential.... Arts-based processes appeal to teenagers....Because the creative arts offer an experience that is both pleasurable and a step removed from direct discourse, adolescents will often participate in them without the skepticism they show toward other therapy approaches"

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
Kirkcaldy, Shephard & Siefen, 2002	"The current study examined associations between the extent of participation in endurance sport, and self-report data on self-image, physical and psychological health and overall lifestyle in a large representative sample of German high-school students	988 German adolescents (14-18 yrs old) from 9 schools in West Germany (47.2% male, 52.8% female)	Questionnaires: Giessen Subjective Complaints List (assess physical health); German version-Achenbach Child Behaviour Checklist; Addiction questions from Eysenck Personality Questionnaire; self-report of drug use	Correlational	Results: "Regular practice of endurance exercise was related to a more favourable self-image.... Adolescents who engaged regularly in physical activity were characterized by lower anxiety-depression scores, and displayed much less social behavioural inhibition than their less active counterparts." p. 544 -benefits of regular exercise: positive mood, increased sense self-sufficiency, improved body image" (p. 544-5) "there are strong relationships between endurance activity and reported scores for physical and psychological well-being." p549 "The present data support the potential therapeutic benefits of physical activity for children and adolescents.... recreational or exercise involvement may serve as a useful point of entry for facilitating discussion among adolescents about issues relating to body image and self-esteem." p. 549

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Koch & Brauninger, 2006	Summary of discussion/ research findings in D/MT; from 2nd International Research Colloquium in Dance Therapy (Feb. 2006)	n/a; various study findings summarized	n/a	Researchers from various countries presented their work/findings on the use of D/MT in various capacities	"Effectiveness studies specifically supported dance/ movement therapy treatment for depressed patients" (p. 127) -D/MT demonstrated "encouraging results" for use with depressed teenage girls (Gronlund, Renck & Gyllander Vabo- Sweden) -discussion of the appropriateness of RTCs in social science, "they do not account for the significance of the intersubjective relationship between patient and therapist" p.129 -team in Scotland developing a "program that aimed to promote the mental health of young people through dance and the other arts" with goal of "introducing typical dance/ movement practice in schools." p.131
Koff & Bauman, 1997	Impact of physical education classes on attitudes and behaviors related to lifestyle habits, body-self relations, and body image.	140 college women (18-22 yrs old) who enrolled in 3 types of PE courses (wellness, fitness, sports skills)	Lifestyle assessment; Multidimensional Body-Self Relations Questionnaire; Figure Rating Scale; self-report of height & weight to obtain BMI	Quasi-experimental, pretest-posttest design	"Participation in exercise and sport activities has been shown to have positive physical and psychological benefits." (p. 555) Participation in wellness & fitness class both resulted in positive changes (more so for wellness class).p. 561 "Contrary to popular belief, participating in a sport alone did not improve perceptions of fitness or healthiness or eventuate in healthier lifestyle behaviors." p. 561

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
Krayer, Ingledew & Iphofen, 2008	Evaluation of social comparison theory in adolescents; what/how/ and with whom to they compare themselves and how does this affect body image/ self-esteem	20, 12-14 year old male & female students (convenience sample- everyone who volunteered participated)	n/a	Qualitative; used Grounded-theory approach with semi-structured interviews	contribution of media & social comparison to development of the "thin-ideal" (p. 893) "Numerous experimental studies have shown that body dissatisfaction was increased by viewing or reading appearance-focused material or being exposed to peer messages about thinness" (p. 899) Mass media has huge role in adolescents lives; peers play a role in how those messages are interpreted; even if an individual challenges the thin-ideal, they may think that their peers believe the thin ideal and that they will be judged accordingly (p. 901) "Prevention efforts which teach individuals to challenge these images and unrealistic standards within their social context might e particularly important" (p. 901)
LaTorre, 2008	Theoretical discussion of how body movement can enhance the healing process; discussion focuses on the use of tai chi and dance.	n/a	n/a	theoretical, review of literature	"moving the body through freestyle dance steps allows the client to contact unconscious aspects that are not easily accessed verbally".... leads to self-awareness/expression, and increases release of neurotransmitters which enhances well-being p. 127 -impact of movement as a group: bonds form between group members, relationship & trust form, developing "antidote for their sense of isolation and separateness" p. 127

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
LeCroy, 2004	evaluation of the Go Grrrls program; 12 session intervention for “achieving competent gender role identification, establishing an acceptable body image, developing a positive self-image, forming satisfactory peer relationships, achieving independence, learning to utilize resources, and planning for the future.” (p. 427)	55 girls, mean age 12.7 yrs, recruited at school in suburban area of Southwest US; 68% Caucasian, 18.5% mixed race, 11.1% Hispanic, 3.7% African American, 1.9% Asian American	Pre-test & Post-Test; Concerns with body image scale; Gender Role Attitudes Scale (dropped due to poor reliability); Peer Self-Esteem Scale; Common Beliefs Inventory; Depression Self-Rating Scale; Help Endorsements Scale	Quasi-experimental; volunteers participated in intervention, control sample consisted in a physical education class of matched participants (no tx)	“adolescent girls are likely to develop negative body image, which is related to measures of low self-esteem and depression” (p. 431) “increases in the intervention group above those in the comparison group on three of the five outcomes: peer esteem, common beliefs, and help endorsements, and the fourth measure, depression, approached significance.” (p. 435) “Preventive interventions can have a positive effect on girls' mental health and help prevent the downturn of girls' self-esteem as they make these transitions.” from elementary to middle school (p. 436) “girls are often overrepresented regarding problems that are more "invisible" or "inner directed" such as negative self-image, depression, eating disorders, and poor body image (LeCroy & Daley, 2001). Because these problems are easily hidden, girls who require assistance may successfully conceal them until they have reached a precarious level.” (p. 436) more research is needed to determine the long-term effects of intervention program for adolescent girls transition to adulthood(p. 438)

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LeCroy & Daley, 2001 (book)	Review of research and presentation of the Go Grrrls curriculum for adolescent girls	n/a	n/a	n/a	-adolescent girls have unique developmental tasks (includes body-image, self-image & peer relationships) therefore encourage all-female adolescent program -girls are likely to have negative body image, low-self esteem and depression (especially early-maturing girls) -media pressure to be thin, developmentally vulnerable because looking for role models “early maturing girls are at significantly higher risk for both low self-esteem and behavior problems” (p. 35) “Efforts to boost girls’ self-esteem, then, should focus on areas of competence that are important to girls” (p. 35)

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
Lepage & Crowther, 2010	Examination of the effects of exercise on body dissatisfaction and affect	61 female undergraduates (prescreened from General Psych enrollment based on frequency of exercise and scores on Appearance subscale of State Self-Esteem Scale)	State Self-Esteem Scale (SSES); Reasons for Exercise INventory (REI); Positive and Negative Affect Scale (PANAS-X)		"The physical benefits of exercise are well established....Exercise also has psychological benefits, including greater levels of general well being, greater positive mood, and lower levels of depression and anxiety." "These relationships have been shown to be especially strong for women." p. 124 -exercise related to body satisfaction, "there have been two studies that investigated the immediate impact of exercise on body dissatisfaction....One of these studies found that just 60 min of aerobic exercise was associated with significant increases in body satisfaction." p. 124 "In addition to impacting body dissatisfaction, exercise also has been shown to be associated with positive changes in mood." p. 125 "...all women experienced less state body dissatisfaction and negative affect and more positive affect following exercise than following random assessment throughout the day." (p. 129)

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
McCabe, Ricciardelli & Salmon, 2006	Evaluation of the Active Children and Esteem Study (ACE Kids) intervention program to improve body image and affect in children by focusing on increasing physical activities, and improving feelings of self-worth and peer relationships	368 boys & girls (8-12 yrs old) from 4 schools in Melbourne, Australia	Positive and Negative Affect Schedule for Children (PANAS-C); Author developed items for body image	Pretest-posttest, experimental design (classes randomly assigned, balanced for control & experimental group at each school)	"In recent years there has been increasing concern expressed among researchers and educations regarding the high levels of body dissatisfaction among pre-adolescent boys and girls." p. 590 "Being thin is highly valued within our society, particularly among women, for whom thinness is often equated with being attractive." These "values and views are already advocated by children as young as 5 years of age." p. 590 "A central protective factor in the promotion of a positive body image and lowered negative affect in childhood is physical activity for fitness and enjoyment." p. 590 -physical activity promotes "mental, social and physical development" and "reduces depression, anxiety and responses to stress, and improves mood, relaxation, self-esteem, social contacts and social support." 590 "...intervention programs should aim to improve body satisfaction and physical activity among youth while avoiding risk for unhealthy weight practices and eating disorders." p.590 "It is also possible that the programs need to be longer, and need to have regular booster sessions in order to be effective." 596 (this study had 8 weekly, 40-min sessions).

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Meekums, 2010	exploration of the dynamic between art therapists and scientist/ researchers; proposal for more systematic research in DMT to measure outcomes	theory-based; author reviews past literature/ research in attempt to identify direction field should take to integrate DMT with more solid research evidence	n/a	review of literature; discussion of various forms of research methods (randomized controlled trial as "gold standard", vs. qualitative research)	"there is a need for more high quality evidence in DMT" (p. 35) DMT research is generally qualitative; "There remains an urgent need for more randomized controlled studies" (p.40)
Paul, 2007 (Dissertation)	what physical/ psychological changes to people report experiencing after taking belly dance classes	6 females, 17-70 yrs old, from Southern California & Hawaii; amateur belly dance performers with minimum one-year of weekly classes	semi-structured interviews (open ended questions to discover positive or negative changes from participating)	Multiple Case Study- interviews with dance students who report change, their instructor, and a person of significance	(review of literature on D/ MT) -variety of changes including "feeling more comfortable and connected with their bodies, having fun while dancing, freedom of expression, intimate connection to the group" (p. 212-213) -recommendations future research: larger sample size, use of validated scales for body image/self-esteem
Pipher, 1995 (book)	discussion of challenges faced by adolescent girls, and the impact of our current society (depression, self-harm, substance use, eating disorders, low self-esteem, etc.)	n/a	n/a	n/a	-girls come of age in a "dangerous, sexualized, media-saturated culture" (p. xiii and quoted in LeCroy, 2001) "early adolescence is a time of physical and psychological change, self-absorption, preoccupation with peer approval and identity formation." (p. 9) "...the way girls handle the problems of adolescence can have implication for their adult lives." (p.11)

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Pylvanainen, 2003	Theory-based discussion, concept of body image addressed from philosophical, psychological and psychiatric perspectives	n/a	n/a	review of literature, theory-based	"The concept of body image is central to the field of dance/movement therapy.... one of the central goals in the practice of dance/movement therapy is to promote positive changes in the body image...." p. 40 "The lack of clarity in the concept of body image is not exclusive to dance/movement therapy." (philosophy, psychology, psychiatry) -Offers multiple definitions from various fields/authors; D/MT has focused more on clinical work and less on research/theory building (weakness of D/MT) p. 43 "body image encompasses the individual's attitude regarding his or her body, personal space and boundary perception, relationship to the environment (groundedness), and sensorimotor qualities." p.44-Body movement can aid in development relatedness to others, sense of trust, familiarity with body, independence, social awareness and integrity in social situations p. 54
Radell, Adame & Cole, 2002	does use of mirrors in dance instruction affect body image?	21 female college ballet students	Pre-test & Post-test: Multidimensional Body-Self-Relations Questionnaire	Quasi-experimental (2 ballet classes with same instructor; one was taught with mirrors, the other was not)	"use of a mirror in the teaching of ballet may be an element which contributes to the low body-image scores of the 21 women ballet dancers" (p. 1239) use of mirrors may increase self-awareness which may lead to self-criticism (p. 1245) (check references to studies of dance/body image in 1950's & 1970's)

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Ravaldi et al., 2006	evaluate gender role, eating behavior & body image in female ballet dancers	110 female ballet students (12-30 yrs old) & 59 non-physically active female controls (Florence Italy)	Self- Report: Beck Depression Inventory (BDI); Body Uneasiness Test (BUT); Bem Sex Role Inventory (BSRI); Interview: SCID, Eating Disorder Examination (EDI); BMI calculation	Cross-sectional (students of professional ballet schools and non-physically active (less 2hrs /week)	-drive for thinness & weight dissatisfaction start in childhood for females (Western countries) and female ideal getting thinner & thinner over past 40 yrs (Western countries) -ballet does not increase risk of eating d/o; non-dancers body uneasiness is related to being overweight, whereas dancers have some body uneasiness regardless of weight (p. 533)

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
Richardson & Paxton, 2010	"Evaluation of the efficacy of a theoretically derived school-based body image intervention for young adolescent girls." p. 112	194 female students (grade 7) from 2 Catholic schools in Melbourne, Australia	Socio-cultural Attitudes Towards Appearance Questionnaire Internalization subscale; Physical Appearance Comparison Scale; Appearance Conversation Scale; Weight Teasing subscale of the Perception of Teasing scale; Body Satisfaction Visual Analogue Scale; Body Dissatisfaction subscale of the Eating Disorder Inventory; Eating Disorder Examination Questionnaire Restraint Subscale; Eating Disorder Inventory Bulimia subscale; Rosenberg Self-Esteem scale	Quasi-experimental pre-test post-test design; one school served as intervention group, the other school served as control group	"body dissatisfaction is reported by up to 70% of adolescent girls, is a predictor of extreme weight control behaviors, lower levels of physical activity, depressed mood, and low self-esteem and is a risk factor for the development of eating disorders." p. 112 "research indicates that program content is not the only important component of an intervention; presentation style, choice of participants and intervention setting also need to be considered." (interactive> didactic) p. 113 For this study, "young adolescents were selected because promising results have been found for interventions with older adolescents, but interventions with younger adolescents have been less favorable.... Grade 7 students were selected (approximate age 11-13 years), because puberty, which has been found to have an impact on the development of disordered eating behavior, is likely to be occurring at this age, suggesting that this may be a vulnerable time for these adolescents." p.113 Findings: positive impact at post-intervention and 3 month follow-up for all areas except appearance teasing p. 117-118

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
Ritter & Low, 1996	"addresses methodological problems that have affected the DMT literature and evaluates quantitative studies of DMT using meta-analytic techniques" (p.249)	23 of 65 studies evaluating the use of DMT in various populations; only those with control groups/ necessary stats were included in meta-analysis	search of PsychLit & Medline databases from years 1974 to 1993	Meta-Analysis of "23 studies that met entry criteria "having a control group, statistics available for effect size calculation" (p. 250)	"DMT appears to have therapeutic value fort he healthy person" and "The effects of DMT alone and in conjunction with other therapies for healthy individuals deserve further study" (p.250) DMT is an effective intervention for some disorders, primarily in adults" (p.255)
Seidman & French, 2004	evaluation of "turning points", or developmental opportunities for prevention programs	n/a	Self-Perception Profile for adolescents; Youth Self-Report (selected items for depression & agression); adaptation of the National Youth Survey (for delinquency seriousness)	n/a	"among adolescents, development is noteworthy in biological, cognitive, self, and identity processes, as well as in the areas of social reasoning and judgment." p. 1142 -discussion ecological transitions; differentiation between normative & non-normative & both have an impact p. 1143 -"ecological transitions provide the opportunity for taking on new roles that can alter life trajectories, for better or worse.... as turning points, they can dramatically affect psychological development, including psychopathology, and future life opportunities." p. 1144 "Low self-esteem has been shown to be a precursor, and associated with, depression and suicidal ideation in children and adolescents" P. 1146 -Findings: "our analyses of self-esteem for the early adolescent cohort suggested that the transition to junior high school represented a critical turning point." p. 1152

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Slater & Tiggemann, 2002	tested Objectification Theory model with adolescent females	38 recreational ballet dancers (12- 16 yrs old) and 45 non-dancers (13-15 yrs old) no formal dance training	BMI calculation; Self-Report: Self-Objectification Questionnaire, Body Surveillance Scale, Body Shame Scale, Appearance Anxiety Scale, Eating Attitudes Test (EAT-26)	Evaluation of theoretical model	-Objectification theory is applicable to adolescents Self-objectification was NOT higher in dancers; perhaps all adolescent girls score higher on measures of self-objectification and appearance dissatisfaction as compared to adults (p. 348) "adolescence is a time of increased self-awareness, self- consciousness, and preoccupation with image, and might therefore be a critical period for development of self-objectification." (p. 348)
Swami & Toveé, 2009	does body image differ amongst street-dancers and non-dancers? (countering studies that ballet dancers have negative body-image)	83 women recreational street-dancing classes in London & age-matched sample of 84 female non-dancers	Photographic Figure Rating Scale (PFRS); Body Appreciation Scale (BAS): Sociocultural Attitudes Towards Appearance Questionnaire-3	Quasi-experimental (2 comparison groups, not randomly assigned)	-problem with many studies is that "dancers" considered a homogenous group No significant difference found between actual/ideal body weight, however, the street dancers had greater body appreciation suggest self-esteem measures in future study

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
Thomas, Davidson, & McAdoo, 2008	evaluation of school program to promote protective cultural factors against racism	74 African American female, freshman & sophomore high school students	Pre-test & Post-Test; Multigroup Ethnic Identity Measure (MEIM); Racism Awareness Scale (RAS); Children's Africentric Values Scale (CAVS); and 2 liberatory youth activism scales designed for study "most adolescent measures are heavily influenced by White middle-class values and are developed, tested, and used on White youth" (p. 302)	between-groups experimental design w/ intervention (1/5hrs 2x/wk 10 weeks) & control (school as usual)	"youth development interventions have largely taken a "universal" approach to prevention, wherein White, middle-class values are strongly influential in intervention strategies and materials" (p. 303) majority of AA youth research is "deficit oriented" and know less about successful youth surrounded by hardship, as compared to those who become "victims of their environment" (p. 304) "participants in the intervention had a stronger ethnic identity, stronger sense of communalism, enhanced awareness of racism, and greater intention to, and increased participation in, liberatory youth activism at the end of the program." (p. 300)

Author/Year	Research Questions/ Objectives	Sample	Instruments	Research Approach/ Design	Major Findings
Zimmerman, Copeland, Shope & Dielman, 1997	Identification of self-esteem trajectories across adolescence; goal to replicate findings that self-esteem may be stable or variable across time	students from 6 school districts in Michigan (N= 1160); assessed across a 4 year period (6-10th grade)	Coopersmith's (1967) self-esteem scale; author-developed "measure of susceptibility to peer pressure"; self-report of grades; self-report of alcohol use/ misuse; tolerance for deviance measure (Rachal, 1975)	Longitudinal study (4 data points across 4 yrs); data examined by cluster analysis	-findings replicated previous studies: 4 trajectories of self-esteem across adolescence (consistently high, moderate and rising, steadily decreasing, consistently low) -Low self-esteem related to variety of MH and academic concerns (p. 118) "One reason no single theory fully explains adolescent development may be that adolescents are not a developmentally homogeneous group" (p. 119) -positive peer relationships associated with self-esteem (P. 120) -high self-esteem associated with high academic achievement; good grades may help adolescents develop/maintain self-esteem

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APPENDIX B: Study Questionnaire

Please answer the following questions about yourself and your family. Answering these questions will help the researcher understand your family background. Your answers will not be shared with anyone other than the researcher.

On the remaining pages, please mark the box that best describes how you think and/or feel about yourself. If you are uncomfortable answering any question, please leave it blank. If there is a word or a question you don't understand, please ask for help.

Thank you!

Personal Information:

Name: _____ Grade: _____

Age: _____ Ethnicity/Race: _____

Height: _____ Weight: _____

Before this year, how many years have you been in [redacted] and/or [redacted] classes?

[redacted]: 0 1 2 Dance Class/[redacted]: 0 1 2

Were you born in the United States? YES NO

What language(s) do you speak at home? _____

Have you started your period? YES NO

If yes, how old were you when you got your first period? _____

What types of regular physical activity do you do? (Include sports, exercise, dance, etc.)

Type of Activity	How many times per week?	How many minutes each time?

Type of Activity	How many times per week?	How many minutes each time?

Family Information:

Where were your parents born?

_____Both of them were born in the U.S.
_____Only one of them was born in the U.S.
_____Neither of them were born in the U.S.
_____Don't know

The next few questions ask about your mother and father. If other adults are raising you, please answer the questions based on the adults you live with and describe the relationship (step-parent, adoptive parent, grandparent, etc.)

What is your mother's occupation/job? (or other adult: _____)

_____

What is the highest level of education that your mother completed?

_____Less than seventh grade
_____Junior high school
_____Partial high school
_____High school graduate (including GED)
_____Some College (at least one year) or trade program
_____College or University graduate (Bachelor's degree)
_____Graduate professional training (Master's or Doctoral degree)
_____Don't know

What is your father's occupation/job? (or other adult: _____)

_____

What is the highest level of education that your father completed?

_____Less than seventh grade
_____Junior high school
_____Partial high school
_____High school graduate (including GED)
_____Some College (at least one year) or trade program
_____College or University graduate (Bachelor's degree)
_____Graduate professional training (Master's or Doctoral degree)
_____Don't know

Below is a list of statements dealing with your general feelings about yourself. If you **Strongly Agree**, circle **SA**. If you **Agree** with the statement, circle **A**. If you **Disagree**, circle **D**. If you **Strongly Disagree**, circle **SD**.

RSE	Strongly Agree	Agree	Disagree	Strongly Disagree
1. I feel that I'm a person of worth, at least on an equal plane with others.	**SA**	**A**	**D**	**SD**
2. I feel that I have a number of good qualities.	**SA**	**A**	**D**	**SD**
3. All in all, I am inclined to feel that I am a failure.	**SA**	**A**	**D**	**SD**
4. I am able to do things as well as most other people.	**SA**	**A**	**D**	**SD**
5. I feel I do not have much to be proud of.	**SA**	**A**	**D**	**SD**
6. I take a positive attitude toward myself.	**SA**	**A**	**D**	**SD**
7. On the whole, I am satisfied with myself.	**SA**	**A**	**D**	**SD**
8. I wish I could have more respect for myself.	**SA**	**A**	**D**	**SD**
9. I certainly feel useless at times.	**SA**	**A**	**D**	**SD**
10. At times I think I am no good at all.	**SA**	**A**	**D**	**SD**

Indicate how often you agree with the following statements ranging from “never” (0) to “always” (4). Circle the appropriate number beside each statement.

BESAA	Never	Seldom	Some-times	Often	Always
1. I like what I look like in pictures.	0	1	2	3	4
2. Other people consider me good looking.	0	1	2	3	4
3. I’m proud of my body.	0	1	2	3	4
4. I am preoccupied with trying to change my body weight.	0	1	2	3	4
5. I think my appearance would help me get a job.	0	1	2	3	4
6. I like what I see when I look in the mirror.	0	1	2	3	4
7. There are lots of things I’d change about my looks if I could.	0	1	2	3	4
8. I am satisfied with my weight.	0	1	2	3	4
9. I wish I looked better.	0	1	2	3	4
10. I really like what I weigh.	0	1	2	3	4
11. I wish I looked like someone else.	0	1	2	3	4
12. People my own age like my looks.	0	1	2	3	4
13. My looks upset me.	0	1	2	3	4
14. I’m as nice looking as most people.	0	1	2	3	4
15. I’m pretty happy about the way I look.	0	1	2	3	4
16. I feel I weigh the right amount for my height.	0	1	2	3	4

BESAA	Never	Seldom	Some-times	Often	Always
17. I feel ashamed of how I look.	0	1	2	3	4
18. Weighing myself depresses me.	0	1	2	3	4
19. My weight makes me unhappy.	0	1	2	3	4
20. My looks help me to get dates.	0	1	2	3	4
21. I worry about the way I look.	0	1	2	3	4
22. I think I have a good body.	0	1	2	3	4
23. I"m looking as nice as I'd like to.	0	1	2	3	4

Note. The Rosenberg Self Esteem (RSE) scale was used with permission from the University of Maryland. http://www.bsos.umd.edu/socy/research/rosenberg.htm

Note: The Body Esteem Scale for Adolescents and Adults (BESAA) was reproduced from "Manual for the body-esteem scale for adolescents and adults", by B.K. Mendelson, D. R. White, & M. J. Mendelson, 1997, *Research Bulletin 16*, No. 2. Used with permission.

APPENDIX C: Introduction Scripts

Introduction Script 1

Hello, my name is Shelly and I'm a doctoral student at Pepperdine University. I'm here today to ask for your help. As part of my schoolwork, I'm doing a research study to learn more about how programs like this one might influence how girls think and feel about themselves. If you decide to participate, I will ask you to answer a few questions in a couple weeks, and again at the end of the school-year.

I will be passing out a packet of information for your parents including a description of my research study and a permission form. I can only ask you to participate in my study if your parents give permission, but everyone whose parents return the papers will be entered in a raffle drawing and one girl will receive an iPod shuffle. To be entered in the drawing, you just need to ask your parents to read, sign, and mail back the forms in the envelope I've provided. You are eligible to win even if your parents to not want you to participate in the study, but please ask your parents to fill out the forms by next week so that I receive them in time to include you in the drawing.

I will be visiting again in a couple of weeks to talk with you again about my research study. If your parents give permission for you to participate, I'll explain a few more details about the study and then you will be able to decide if you want to participate. At the end of the school-year, the names of everyone who completed the study will be entered into another raffle drawing and two more girls will be selected to receive an iPod shuffle.

I'd be happy to answer any questions that you have, and I'll be back in a couple of weeks to explain more about the study. Please remember to ask your parents to read, sign, and mail these forms by next week so that you can be entered in the raffle drawing.

Thank you.

Introduction Script 2

Hello again, I'm Shelly and I'm a doctoral student at Pepperdine University. I'm here today to ask for your help. As part of my schoolwork, I'm doing a research study to learn more about how programs like this one might influence how girls think and feel about themselves. If you decide to participate, I will ask you to answer a few questions today, and again at the end of the school-year.

Your parents have already received information about my research, and they told me if I could invite you to participate in this study. The names of everyone whose parents returned the form, regardless of their decision, will be entered into a raffle drawing and one girl will be selected to receive an iPod shuffle. Also, at the end of the school year the names of everyone who completed the study will be entered into a raffle drawing and two more girls will be selected to receive an iPod shuffle.

If your parents said "yes", you will be given a few extra pages to review. Even if your parents said "yes", the decision is completely up to you and no one will be upset if you decide not to participate. Unfortunately, if your parents said "no", I cannot have you fill out the forms, even if you would like to participate.

If you received the research papers, please read the first page to learn more about my research project. If you do not want to be a part of the study, just leave all of the extra pages blank and place them in the envelope to give back to me. However, if you would like to be in the study, please sign the form and answer the questions on the following pages. Once you are done, please put all the papers in the envelope and give them back to me. By putting the forms in the envelope, I will be the only one who knows your answers or your decision about participating in the study. The questions will only take a few minutes to complete, and I would really appreciate your help. Completing this project will help me to be one step closer to finishing my doctoral degree and becoming a psychologist.

Please let me know if you have any questions about the study, or if there is anything that you don't understand in the forms.

Thank you.

APPENDIX D: Informational Letter

Dear Parents,

We are pleased to announce that during the 2011-2012 school-year, we will be working with Shelly Crosby, a clinical psychology doctoral student at Pepperdine University, who will be conducting a study with our [redacted] programs for her dissertation research project.

Ms. Crosby is interested in studying the ways that programs like [redacted] might impact the ways that girls view themselves. With this in mind, she has asked to work with us to learn more about the impact of participating in these programs. In this study, your child will be asked to answer questions about how she thinks and feels about herself. She will also be asked to answer some personal background questions such as her age, height, weight, and language spoken at home. Ms. Crosby will also be reviewing the questionnaires that we ask the girls to complete each year, and she will be evaluating the [redacted] programs based on these questionnaires.

To thank the girls for participating, Ms. Crosby will hold a raffle drawing for 3 iPod Shuffles. In a drawing at the beginning of the school year, one name will be drawn from all of the [redacted] members whose parents sign and return the enclosed form (indicating either permission or declining permission for the study). In a drawing at the end of the school year, two names will be randomly selected from all of the [redacted] members who complete the research questionnaires at both the beginning and end of the year.

Please review the enclosed information which describes the research study in further detail. We are excited about this project; however, it is important for you to know that participation is completely voluntary. Your decision whether or not to participate in the research study will not affect your child's participation in [redacted].

Please sign and return the enclosed form to indicate if you are giving permission, or declining permission, for your child to be invited to participate in the research study. If you have any questions, please feel free to contact Ms. Crosby by leaving a message at ([redacted]) [redacted].

Sincerely,

[*name of program director*]
Director of Youth Development

APPENDIX E: Consent Form

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

Title of Project: Preliminary Evaluation of a Girls' Empowerment Program: The Effects of Dance on Self-Esteem and Body-Image.

Principal Investigator: Shelly M. Crosby, M.A.,

1. I, _____, give permission for my child,_____, to participate in the research study being conducted by Shelly Crosby, M.A., a doctoral student in clinical psychology at Pepperdine University, Graduate School of Education and Psychology, under the supervision of Dr. Thema Bryant-Davis, Ph.D.

2. The purpose of this research study is to see if participation in [redacted] programs has an influence on how girls think and feel about themselves. Participation in this study will help the [redacted] understand the impact of participating in the [redacted] programs, and may also add to the general knowledge about the benefits of these type of programs.

3. If I give permission by signing this form, the study will be described to my child, and she will be asked if she would like to participate. If she decides to participate, my child will be asked to answer a set of questions at the beginning of the program in October, and also at the end of the program in June. The questions will ask about general family and background information including her age, height, weight, and how old she was when she started her period; the language(s) spoken at home; parental occupation and education levels; country of birth (U.S. or non-U.S.), and how my child thinks and feels about herself. In addition, the researcher will review the [redacted] surveys from this year and previous years to understand more about the impact these programs have on the girls who participate.

4. My child's participation will last from October to June, however, she will only be asked to answer questions two times: once in October and once in June. Each survey will take approximately 15-30 minutes to complete. Shelly Crosby will hand out the surveys, which will be completed during the regular meetings of [redacted] classes at the [redacted].

5. My child will not benefit directly from participating in this research; however, the [redacted] may benefit by learning more about the strengths of the [redacted] program, and if participation in these programs leads to a change in how the girls think and feel about themselves. Society may also benefit, because my child's participation may help increase the knowledge about the impact of participating in these types of programs.

6. The risks of this study are similar to that which might be experienced in routine psychological testing and/or daily life. My child might feel embarrassed to answer questions about how she feels about herself or feel bored when answering the study questions. My child will be told that she can skip any questions that make her feel uncomfortable and she may stop at any time. If my child decides to skip a question or stop participating in the research study, this will not affect her participation in the [redacted] programs.
7. I understand that my child does not have to participate in this research, and I can indicate my decision (either yes or no) on this form. In addition, even if I give my permission, my child will also be asked if she wants to complete the research questions. My child will not be included in the study if she does not want to answer the questions, or if I do not give permission. If my child begins to participate and then changes her mind there is no penalty involved. If I do not want my child to participate in the research study, I may give permission for the researcher to look at the [redacted] surveys that my child has completed in prior years. This would mean that my child would not be asked to do anything additional, but her answers from previous years could help to better understand the [redacted] programs.
8. The researcher will be offering 3 raffle prizes (iPod Shuffles) for participation. In a drawing at the beginning of the school year, one name will be drawn from all of the [redacted] members whose parents sign and return the enclosed form (indicating either yes or no). In a drawing at the end of the school year, two names will be randomly selected from all of the [redacted] members who complete the research study.

9. I understand that participation is voluntary. This means that either myself, or my child, may decide not to participate, or change our minds and stop the study at any time. The decision whether or not to participate in the study will not influence her involvement in the [redacted] programs and Ms. Crosby will be the only person who knows if my child is participating in the research study.

10. My child's answers to the questions will not be shared with anyone outside of the research team. In addition, her identity will be protected (for example, her name will not be used in any reports that are written about this study). Although this study will not involve asking any questions about abuse or harm, I understand that according to California and Federal law, if my child shares information relating to the abuse of a child, elder, or dependent adult; or if my child indicates a plan to harm herself or others; the investigator may be required to break confidentiality and share this information.

11. If I have any questions about the research study I may contact Shelly Crosby at ([redacted]) [redacted] or Dr. Bryant-Davis, the research advisor, at (818) 501-1632. If I have questions about my child's rights as a research participant, I can contact Jean Kang,

manager of the Graduate and Professional School Institutional Review Board, Pepperdine University at (310) 568-5753.

12. I have received a copy of this informed consent form which I have read and understand. All of my questions have been answered to my satisfaction.

(Please select one)

_____ I give permission for my child to participate in this research study

OR

_____ The researcher may review [redacted] surveys that my child has completed in the past, but I do not give permission for my child to participate in this study.

OR

_____ I do not give permission for my child to participate in this research study.

_____ _____

Parent/Guardian signature Date

Relationship to minor (Please select one)

_____ Mother _____ Father _____ Legal Guardian

APPENDIX F: Assent Form

Understanding how girls in dance programs think and feel about themselves

My name is Shelly Crosby, and I am inviting you to help me out with a project. Your parents have given permission for you to join this study, but I want you to know that the choice to do the project is completely up to you. No one is going to make you to do something you don't want to do. Even if you start the project and decide part of the way through that you no longer want to continue, all you have to do is let me know or stop answering the questions

Let me tell you about what you will be asked to do if you decide to help me out. The study is trying to understand more about the [redacted] program that you are involved in, and if these programs affect how you think and feel about yourself. If you decide to participate, you will be asked to complete a short survey on two different occasions (at the beginning of the program and before summer break). The surveys will ask you to answer questions about yourself, your family, and how you think and feel about yourself. The survey is not very long, and it will take about 15-30 minutes to complete. You can skip any questions that make you feel embarrassed or uncomfortable, and no one will be upset with you if you skip a question.

A raffle drawing will be held and 3 girls will be selected to receive an iPod Shuffle. The first drawing will be held at the beginning of the year, and one name will be picked from all the girls whose parents signed and returned the permission form. Another drawing will be held at the end of the school year, and two names will be picked from all the girls who finish the study.

I'll ask you to put your name on your survey each time, so that I can match your answers from the beginning and end of the year. Once you finish all the surveys, I'll use a code number instead of your name so that no one else can figure out which answers were yours. Your answers will not be shared with the [redacted] instructors, and in most cases the answers will not be shared with your parents. However, I may need to tell your parents or other people if you tell me in person or in writing that you are being hurt or abused, or if you tell me that you want to hurt yourself or somebody else. Information like your name, the program name, or details about your family will not be shared with anyone when the report is written for this study.

Helping me out with this project will probably not help you directly. However, your answers may help identify ways to improve the [redacted] programs. Your answers may also help others understand how girls in these types of programs think and feel about themselves.

If you have any questions, you may contact me at ([redacted]) [redacted].

You may keep a copy of this form if you wish.

_____	_____
Participant's signature	Date
_____	_____
Researcher's signature	Date assent obtained