

Using a Dance/Movement Therapy-Based Wellness Curriculum: An Adolescent Case Study

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Abstract This study examined the relationship between an adolescent female’s overall wellness, defined by quality of life, and her participation in a dance/movement therapy (DMT)-based holistic wellness curriculum. The curriculum focused on the topics of nutrition, mindfulness, movement, body image, and friendships. Research indicates that the curriculum topics, holistic wellness models, and DMT are each relatively effective for work with adolescent females, but their combination had yet to be explored using the format of the current study. Quantitative and qualitative data were gathered using the Youth Quality of Life-Research Version, as well as parent surveys and session transcriptions. Themes emerging from these data suggest that through engagement with the curriculum the participant increased knowledge about herself and how her body functioned, and that the use of DMT was appropriate in this particular situation. Future in-depth research with groups and different populations is warranted.

Keywords Adolescent · Body image · Dance/movement therapy · Female · Holistic wellness · Psychoeducation · Mindfulness

A 16-year-old female comes to counseling because her “friends” are using the Internet, among other vehicles, to incessantly call her a slut—“just for fun.” A 50-year-old woman overtly discusses disliking her own appearance, would like to change her diet in order to lose weight, and doubts that she has much to offer the world; she speculates that maybe it is her fault her husband continues to abuse alcohol. The 11-year-old girl described in the case study below is actively trying to

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lose weight, and cries as she explains that the other girls on the sports team are thinner and faster. These stories reveal difficult realities for three females at different developmental life stages. Perhaps such stories would be less common if young girls were able to learn about and experience their bodies in holistic, empowered, and healthy ways. Given such support, girls and women would be better equipped to face a society that many of them perceive as against them from the start.

This study examines the relationship between an adolescent female's overall wellness and her participation in a dance/movement therapy (DMT)-based holistic wellness curriculum, which focused on the topics of nutrition, mindfulness, movement, body image, and friendships. More specifically, the researcher was interested in measuring the subject's quality of life pre- to post-participation. The field of adolescent psychology is substantial, and an exhaustive review of the literature pertaining to all of the themes present in the current study is beyond the scope of this article. Rather, the intent here is to define pertinent themes and highlight relevant literature for the purpose of evaluating the described case study.

Definitions

It is important to define the key terms to be used in this study, namely dance/movement therapy (DMT), holistic wellness, and adolescent female. Broadly, the American Dance Therapy Association (2009) defines DMT as, "the psychotherapeutic use of movement to further the emotional, cognitive, physical and social integration of the individual" (www.adta.org, "About" page, para, 1), and its relevance to the current study will be discussed in detail below. Myers, Sweeney, and Witmer (2000) are leaders in the field of Holistic Wellness, and their definition will be used. Holistic wellness is "a way of life oriented toward optimal health and well-being in which body, mind, and spirit are integrated by the individual to live more fully" (p. 252). There are discrepancies in the literature about the age at which a child becomes an adolescent (Hendrie, Sohnpal, Lange, & Golley, 2013; Marsee, Weems, & Taylor, 2008; McMaster, Connolly, Pepler, & Craig, 2002; National Institute of Mental Health, 2013). In this study, the 11-year-old participant will be referred to variously as an early adolescent, pre-adolescent, or adolescent female.

Holistic Wellness Among Adolescent Females

It is generally accepted that a collaborative, biopsychosocial, and integrative approach to wellness is effective, and that change in one aspect of a person's health may directly affect change in other areas, whether positively or negatively (Myers et al., 2000; Patterson, 2001; Pratt et al., 2009; Quick, Wall, Larson, Haines, & Neumark-Sztainer, 2013; Searcy, 2007; Williams, Holmbeck, & Greenley, 2002).

Of the many factors that contribute to holistic wellness among adolescent females, six categories have been identified as central: nutrition, mindfulness, movement, body image, friendships, and wellness wheels, or diagrams of unique

wellness plans (M. Frieswyk-Johnson, personal communication, September, 9, 2013; Myers et al., 2000; Myers, Luccht, & Sweeney, 2004; Myers & Sweeney, 2008; Myers, Willse, & Villalba, 2011; Pratt et al., 2009; Smith-Adcock, Webster, Leonard, & Walker, 2008). These categories figured in curriculum design for the following case study, and the subject created a Wellness Wheel at the end of the process. Those who have published research on the topic of holistic wellness suggest that counselors working with young adolescent females may find creating wellness plans unique to the individual through a strengths-based approach to be an effective tool (Myers et al., 2011; Smith-Adcock et al., 2008).

Nutrition

Much of the recent literature on nutrition among adolescent girls focuses on weight and obesity. Although nutrition is certainly not a new issue, it remains a prevalent topic of discussion (Jelalian, Sato, & Hart, 2011; Pratt et al., 2009; Rosnov et al., 2011; Sonnevile et al., 2012; Stice, Presnell, Shaw, & Rhode, 2005; Tanofsky-Kraff et al., 2010; Turner, Rose, & Cooper, 2005). In a 1989 study, Moses, Banilivy, and Lifshitz (1989) emphasized this point in noting that, “the desire for thinness...in these adolescents does not appear to be a new phenomenon. As many as 20 years ago, a great prevalence of dieting to lose weight even among lean females was described by Dwyer et al. (1967)” (p. 396).

Adolescent girls continue to be at high risk for using unhealthy methods in the attempt to lose weight, and tend to make unhealthy nutritional choices in their desire to lose weight. As discussed below, this population is also at high risk for depression, which has been linked to the onset of obesity (Croll, Neumark-Sztainer, & Story, 2001; Stice et al., 2005; Thomsen, Weber, & Brown, 2002). In a 2005 study of adolescents, Stice et al. found that for each additional reported depressive symptom there was more than a fourfold increase in risk for obesity.

Prevention curricula with regard to child and adolescent obesity, and development of healthy weight regulation do exist, and have been studied (Killen et al., 1993; Lubans et al., 2010). Also, programs more in alignment with the curriculum used for the current case study, with a focus on nutrition for the purpose of health and not weight loss (B. Brown, personal communication, September, 21, 2013; Lubans et al., 2010), have been shown effective in fostering a culture of healthier nutrition choices. Schools, of course, have an especially influential impact on young people’s nutritional habits (Mâsse, & Niet, 2013). Recently reviewed research universally endorses the importance of nutrition education as early as possible in a child’s life (B. Brown, personal communication, September, 21, 2013; Growe Foundation, 2013; Lubans et al., 2010; Rowe, Stewart, & Somerset, 2010; Sonnevile et al., 2012; Stice et al., 2005). Even if adolescent girls have basic knowledge about healthy versus unhealthy foods, there are barriers to making healthy nutritional choices (notably, time restrictions, limited food availability, and lack of concern about negative consequences). Effective education is nonetheless possible if offered in a fun, accessible way (B. Brown, personal communication, September, 21, 2013; Croll et al., 2001; Growe Foundation, 2013).

Lastly, and of utmost importance, the health of adolescent girls, especially with regard to nutrition, starts with the family. For at least the past 10 years, researchers have repeatedly found that family cohesion plays a vital role in the nutritional habits of adolescent girls (Benton, 2004; Croll, Neumark-Sztainer, Story, & Ireland, 2002; Franko, Thompson, Bauserman, Affenito, & Striegel-Moore, 2008; Hendrie et al., 2013; Quick et al., 2013; Turner et al., 2005).

Mindfulness

Dr. Jon Kabat-Zinn (1994), a leader in the field of clinical mindfulness and founder of Mindfulness Based Stress Reduction (MBSR), defines mindfulness as, “paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (Black, 2009, p. 1).

Mindfulness practice generally has been shown to reduce stress in various populations (Benn, Akiva, Arel, & Roeser, 2012; Brown, Loverich, Ryan, & Biegel, 2011; Hofmann, Sawyer, Witt, & Oh, 2010; Hülshager, Alberts, Feinholdt, & Lang, 2013; Jensen, Vangkilde, Frokjaer, & Hasselbalch, 2012). As seen to date in adults, these effects can be long lasting, leading to overall positive psychological functioning (Benn et al., 2012), and increases in job satisfaction and performance (Hülshager et al., 2013; Shao, & Skarlicki, 2009).

In 2010, Hofmann et al. conducted a meta-analysis of 39 studies, totaling 1140 participants. Subjects in the reviewed studies received mindfulness-based therapy (MBT) for such conditions as depression, generalized anxiety disorder, cancer, and other psychiatric or medical conditions. The researchers found that, across a wide range of severity and even when participant symptoms were associated with medical problems, MBT improved symptoms of anxiety and depression. Way, Creswell, Eisenberger, and Lieberman (2010) agreed. In their study of normal young adults, these researchers found support for mindfulness as treatment for depression, and identified the amygdala as the part of the brain that allows the technique to work.

A specific type of mindfulness practice mentioned above, MBSR, may improve attentional focusing abilities in healthy meditation beginners (Jensen et al., 2012), and has been shown to be effective with adolescents aged 14–18 at increasing self-esteem and reducing perceived stress, past and present anxiety, and general psychological symptoms (Brown et al., 2011). These findings provide support for the current study.

Movement

It is important for children and teens to stay active (Adams, Johnson, & Toudor-Locke, 2013; Rutten, Savelberg, Biddle, & Kremers, 2013) and early adolescent girls, specifically in the Boulder, Colorado area, the site of this study, typically lead an active lifestyle [Boulder Valley School District (BVSD), 2011]. In a recent study using a large sample of 915 children and 1302 adolescents, Adams et al. (2013) determined that in order for youth to fulfill the aerobic requirement of current public health guidelines for physical activity, both male and female children and adolescents need to take at least 11,500 steps per day. Physical activity-based

interventions used with adolescent girls could lead to more physical activity in general, whereas high amounts of inactivity tend to lead to decreased overall physical activity (Baggett et al., 2010).

Parents have a strong influence on the physical activity habits of their children (McGuire, Hannan, Neumark-Sztainer, Crossrow, & Story, 2002; Sallis, Prochaska, & Taylor, 2000; Savage, DiNallo, & Downs, 2009; Springer, Kelder, & Hoelscher, 2006). Parental influence on physical activity of adolescents may vary by gender, and regardless of adolescent Body Mass Index (BMI), fathers may play an instrumental role in adolescents' body image satisfaction by positively influencing physical activity behaviors (Savage et al., 2009). Parents can also positively influence their children by role-modeling interruption of long periods of sitting with standing or various types of movement, which may advance the whole family's health (Rutten et al., 2013).

Level of enjoyment, opportunity for socialization, mastery over skills, goal setting, and relating to others are important factors for girls when deciding whether or not to participate in physical activities (Jago et al., 2011). Research indicates that girls like to have social support when choosing to join in physical activities (Dwyer et al., 2006; Lytle et al., 2009). Lytle et al. (2009) add that transportation is sometimes a barrier to participation in after-school physical activities for young adolescents. School is extremely demanding for adolescent girls, and lack of free time, given homework obligations, may be either a perceived or a very real barrier to participation in physical activity. These observations are supported by recent research (Gebremariam et al., 2013). Other identified barriers include: influence of peers, parents and teachers, concerns about safety, cost, and competition. In addition, such body-centered issues as menstruation, stereotypes about femininity, and concerns about physical appearance can prevent participation (Dwyer et al., 2006).

Body Image and Self-Esteem

Most of the literature reviewed on this topic uses the language of “high” and “low” self-esteem and/or “positive” and “negative” body image—a practice to be reflected in the following summary. However, Kernis (2003) invites us to consider the true difference between high self-esteem, which is said to be fragile, and ideal or optimal self-esteem, which is argued to be a more authentic experience. Something to consider for future research might be how the use of these terms affects adolescent females and those working with them.

European-Americans may be the population of adolescent girls most susceptible to low self-esteem and depression (Gutman & Eccles, 2007; Robins, Trzeniewski, Tracy, Gosling, & Potter, 2002; Stice & Bearman, 2001). Robins et al. (2002) examined self-esteem in a sample of people 9 to 90 years of age. Results showed that self-esteem levels were high in childhood, but significantly dropped in adolescence, and adolescent girls' esteem dropped almost twice as much as that of boys. Multiple interacting factors may combine to precipitate a drop in self-esteem at this developmental stage, but explanation of this process is beyond the scope of this article. More relevant to the present study is the notion that, “...self-esteem

predicts one of the most important life outcomes of all, that of one's general health" (Stinson et al., 2008, p. 425).

The literature suggests that many different wellness factors can be predictive of positive and/or negative body image and level of self-esteem, and vice versa, in adolescent girls. Some authors have focused on correlations between subjects' body mass and low-self-esteem (Boutelle, Hannan, Fulkerson, Crow, & Stice, 2010; Myers et al., 2011; Ross, Liu, Tomfohr, & Miller, 2013; Smith-Adcock et al., 2008; Stice & Bearman, 2001; Stinson et al., 2008). The Boulder Valley School District's Youth Risk Behavior Survey (YRBS) for 2011 magnified the unfortunate role that weight played in the lives of adolescent females, showing that 18.4 % of middle-school students surveyed considered themselves to be overweight or very overweight, and 31.4 % were attempting to lose weight at the time. The prevalence was even higher among females. In 2001, Stice and Bearman found that body image was correlated with depression, but that elevated body mass did not predict increases in depression in this population. Nine years later, Boutelle et al. (2010) took a closer look, finding that obesity, not overweight status, was associated with future depressive symptoms, but not major depression. A vital point researchers have discussed is that depression is most likely not a direct result of an individual's weight, but may manifest from a combination of social stressors and both internalized and external attitudes related to obesity.

How are self-esteem and body image developed and maintained, and can early intervention predict a more balanced experience for adolescent girls? Searcy (2007) proposed a theoretical model to explain how self-esteem is both developed and maintained in children and adolescents. This model indicates that the development and maintenance of self-esteem includes both formal and informal associations, participation in and eventual success with activities, and aural experiences, or what one hears about oneself, especially from significant others. To complete the model, perhaps somatic experiences, or what is reflected about oneself nonverbally, should be added. If Searcy's (2007) proposed model is accurate, either in part or in its totality, then early intervention to promote healthy levels of body image and self-esteem would be of utmost importance. Paxton, Eisenberg, and Neumark-Sztainer (2006) offer empirical support to the hypothesis that individuals who develop body dissatisfaction by middle adolescence may face a continuous uphill battle for the rest of their lives.

Friendships

Peer influence is a powerful part of the adolescent female experience (BVSD, 2011; Crick, & Nelson, 2002; Fried, 1997; Houlston, & Smith, 2009; James et al., 2011; Koshland, Wilson, & Wittaker, 2004; Marsee et al., 2008; McDonald, 2011; McMaster et al., 2002; Paxton et al., 2006; Shute, Ownes, & Slee, 2008). To say that bullying of children and adolescents has been and continues to be a major problem is an understatement; bullying is often a matter of life and death (BVSD, 2011; Kim, & Leventhal, 2008; Strabstein, 2008; Strabstein, & Leventhal, 2010). Bullying of and by both girls and boys, often among so-called friends, whether in the form of sexual harassment, teasing, spreading rumors, hitting, cyber-bullying, or any other

abuse of power, is an every-day occurrence. Bullying increases in prevalence from late childhood to early adolescence, and may have long-lasting effects (BVSD, 2011; Crick, & Nelson, 2002; Fried, 1997; Houlston, & Smith, 2009; Marsee et al., 2008; McMaster et al., 2002; Shute et al., 2008). Involvement with any type of bullying, whether as victim or perpetrator, can lead to physical injury, social and emotional problems, and often, suicide (Crick, & Nelson, 2002; Kim, & Leventhal, 2008; National Institute of Child & Human Development [NICHD], 2013). In 2007, the National Institute of Mental Health reported that once children made the transition from age 14 to age 15—that is, into adolescence—their statistical chance of dying by suicide increased by 6 per 100,000. In 2011, almost 13 % of students surveyed at BVSD middle schools had seriously considered attempting suicide, with prevalence being higher among female students (BVSD, 2011).

Despite these trends, research does demonstrate that, given effective early intervention and preventative measures, adolescent girls may have the opportunity to create and maintain healthy, safe, and empowered friendships and communities (Fried, 1997; Houlston, & Smith, 2009; James et al., 2011; Koshland et al., 2004; McMaster et al., 2002).

Dance/Movement Therapy as the Foundation

According to Koch and Fischman (2011), “dance/movement therapy may be conceptualized as an embodied and enactive form of psychotherapy” (p. 57). As a field, DMT has a strong foundation of specific techniques based on years of experimentation and adaptation. Marian Chace, Trudi Schoop, Blanche Evan, and Mary Whitehouse are among the pioneers whose theories and methodologies have molded DMT into its current form. Whether working with groups in psychiatric wards, exploring creative dance with children and adults in a “normal neurotic” population, or creating art with dance students, these pioneers acted on the belief that what happened in the mind or body directly influenced the other. Through trial and error, experimentation with rhythm, relationship, play, and continual practice of what they passionately believed in, these pioneers successfully created techniques that are still used today (Levy, 2005).

An underlying principle of DMT is that one’s mind and body are interrelated, a belief that many authors of empirical research and theoretical papers uphold (Dayanim, Goodill, & Lewis, 2006; Fraenkel, 1983; Grönlund, Renck, & Weibeull, 2006; Hannaford, 2005; Krantz, 1999; La Torre, 2008; Ramseyer, & Tschacher, 2011; Rose, 2001; Sheets-Johnstone, 2010; Stinson et al., 2008; Susman, 2001; Winter, 2008).

Dance/movement therapy can be readily integrated into holistic wellness models (Ho, 2006), and was chosen as the foundation modality for the curriculum used in the current study largely because of its creative and experiential approach. Dance/movement therapy is used with children in many parts of the world (Capello, 2008), and experiential learning has been shown to be effective with adolescents (Charney, 2000; Harvey, 1989). B. Brown of the Grove Foundation (personal communication, September, 21, 2013) noted that providing children with

opportunities to touch, smell, and use other senses to learn is powerful, and that this type of learning is crucial to shaping their understanding, values, and behavior. Creative problem solving can significantly increase cognitive abilities and academic achievement (Harvey, 1989), and creative movement can help children relate, be more receptive, and attune to self and other (Thom, 2010). For both dance/movement therapists and DMT clients, such attunement to self and others can foster more positive therapeutic outcomes (Ramseyer & Tschacher, 2011).

Finally, while DMT has been shown effective with adolescents with regard to topics directly addressed in the current study's curriculum, it has not yet been researched using the study's holistic format. Participation in creative dance leads to an increase in both body awareness and appreciation in females (Swami & Harris, 2012), and DMT can be used effectively to teach emotion regulation (Betty, 2013; Grönlund et al., 2006; Koshland et al., 2004), as well as to explore young adolescents' relationship to their changing bodies and sexuality in a safe and age-appropriate way (Kierr, 2011).

Conducting research on the application of DMT in wellness programming has the potential to help create a better understanding of how and why holistic wellness approaches are effective for adolescent females, and why DMT should be included as an important element in future research and development of holistic wellness models.

Description of Study

The 11-year-old participant, whose name has been changed to protect confidentiality, will be referred to as "Alex." Alex, who was entering sixth grade at the beginning of the study, identified as a Caucasian female and came from an intact family. She belonged to the population most susceptible to low self-esteem and depression, as described above. Alex was originally recruited by this author's internship supervisor, and registered for the group version of the "Youth Holistic Wellness Series: Our Girls' Healthy Bodies" curriculum. Too few registrants were recruited for the group to run, but Alex and her family agreed to take part on an individual basis. All sessions with Alex, as well as meetings with her parents, took place in a private psychotherapy office that was large enough for the facilitator and participant to use movement and visual art when exploring themes.

This data- and observation-based case study explored an adolescent female's overall wellness through her participation in a 6-week DMT-based holistic wellness curriculum. Incorporating check-in sessions and parent meetings, the study lasted for a total of 4 months, and included nine sessions. Once the curriculum sessions began, meetings occurred mostly on a consecutive weekly basis. Quantitative data were gathered by administering the Youth Quality of Life—Research Version (YQOL-R) to the participant both pre- and post-participation. Qualitative data were gathered through parent surveys, as well as through analysis of transcripts of the audio- and video-recorded curriculum sessions and check-in meetings.

Curriculum-Based Sessions and Check-In Meetings

At the end of each curriculum session, the participant was given a handout, as well as a Parent Tips sheet with resources for her parents.

Session #1: Pre-curriculum

The first part of the session involved the researcher and the participant, along with her mother and father. An explanation of the study was given and all necessary forms were signed, including Informed Consent and Assent. Both parents verbalized understanding of the curriculum and procedure for the study. The researcher found the parents to be supportive and committed to Alex's overall health. They had questions regarding the confidentiality of their daughter's information and experience, and after all questions were answered, the session continued with only the researcher and Alex.

This second portion of the session was audio recorded and lasted approximately 30 min. The researcher asked Alex a series of qualitative interview questions pertaining to the topics of the curriculum. The researcher posed such general questions as, "When I say 'nutrition,' what comes to mind?" for each of the topics included in the curriculum. Follow-up questions were asked based on the participant's responses. Alex's responses and behaviors indicated that she had the most knowledge about the topics of nutrition, movement, and friendships, and displayed less knowledge about the topics of mindfulness and body image, which she defined solely as a person's size. She understood nutrition as "eating healthy," and the idea of using movement as a form of expression, saying, "When I'm telling a story, I use my hands a lot." Regarding friendships, Alex wanted to learn how she could still be a part of her current social group, while at the same time expanding it to include others. When the topic of body image was mentioned, Alex took long pauses and began to cry, after which the researcher facilitated a break from interviewing.

Many of Alex's statements, when discussing various curriculum topics, had to do with the size of a person's body or weight. Included among these responses was her definition of body image—her comparison of her own weight to that of other girls on the sports teams. She offered an uncertain assessment that, "A lot of people are like thinner than me or like faster I guess, but oh well." Losing weight was something she was doing well, an accomplishment that she wanted to build on, which she acknowledged was, "...more of [her] parents' [idea]." Throughout the 30-min interview, Alex used the phrase "I don't know" 36 times. She expressed an understanding neither of what would be included in the curriculum, nor why her parents signed her up for the program. After meeting Alex and witnessing her demeanor, level of maturity, and general lack of comfort in this session, the researcher decided that using qualitative interview questions would be inappropriate, and chose to change the approach for future check-in meetings. All curriculum-based and check-in sessions after this point were audio- and video-recorded.

Session #2: Nutrition

The session began with Alex and the researcher playing catch while checking in verbally. Alex described herself as tired, did not seem to know much about why she was meeting with the researcher, and said that it was “weird” that it was just the two of them. She and the researcher continued to get acquainted, and sat on the floor to decorate a personalized folder and tote bag for Alex to use during the program. Alex chose Michael Jackson music to play in the background, and started dancing in her seat as soon as it came on. When asked where she learned her moves, she answered, “TV.” While Alex continued to decorate, the researcher introduced the subject of whole versus packaged foods, using physical food items as examples. The researcher felt that Alex defined well the differences between the types of food and their impact on the body.

After noticing the way Alex was moving in her seat, the researcher suggested standing up to take a “dance party break,” which led to creating movements with Alex to represent both healthy, or “growing,” and unhealthy, or “stalling” foods. Alex had previously learned about these concepts from her nutritionist, and demonstrated a fairly complete understanding of them. Alex laughed constantly while creating these movements, especially after finding a movement that represented “constipation” for the “stalling” food category. After dancing, Alex voiced confusion about the fact that preschoolers get to nap, while middle-school students really need a nap during the day.

The researcher and Alex then moved back to the floor and, using a whiteboard, documented her “take-aways” from the “growing and stalling foods” lesson. When Alex was asked if she liked eating the way her nutritionist and parents wanted her to, she replied, “This is how you have to eat when you’re pre-diabetic.” Focusing on eating slowly and enjoying food, the researcher then introduced mindful eating, a practice unfamiliar to Alex. She and the researcher practiced use of the five senses, which Alex was able to identify, in eating a square of dark chocolate. Alex left with all of the snacks used as food examples in the session.

Session #3: Mindfulness

The session began with Alex and the researcher chatting and checking in about Alex’s week. Early on, Alex stated that she was tired, but later in the session said she was not tired at all. After the two found seats on the floor, the researcher introduced the topic of mindfulness. Alex was given a set of colored popsicle sticks to use to answer questions or show how she felt throughout the session, and she practiced with the researcher, using the sticks as responses: red (no), yellow (maybe), and green (yes). Alex tended to use the popsicle sticks more often when there was low music, when she seemed nervous, when sitting, when talking more than moving, and when asked direct questions. Alex seemed more comfortable when participating in the subsequent activity, standing up to play a game called “How Do You Feel?” and another called “What Else Could It Be?” While playing these games, many of Alex’s answers had to do with animals or colors. The matter of constipation came up again.

After re-finding their seats, the researcher taught Alex a breathing technique called the “five-point breath,” designed to regulate the nervous system. Alex wrote on her worksheet while the researcher documented some ideas about mindfulness on the whiteboard. At this point in the session, Alex was able to articulate her definition of mindfulness: “Patient, not moving so fast...just like being there”; and how she might apply it in school, “Paying attention”; in sports, “Like not having judgment on the other team...how they look or how they play”; with family, “Like, express your feelings”; and with friends, “Being in the moment, playing.”

Session #4: Movement

When the researcher told Alex that it was “Movement” day, she immediately did her constipation movement from Nutrition day. The session began on the floor with a developmental movement warm-up sequence, derived from the Body-Mind Centering model (Cohen, 2011). There was not ample floor space, which made warming up difficult. When Alex was told that today she would create a special “Alex” dance, or Identity Dance (ID), her response was, “Yes! Can there be constipation in it?” Then, Alex wrote on her worksheet, while the researcher documented on the whiteboard the words Alex came up with to describe herself: “weird, crazy, Alex, the world, young, awesome, human, kind, helpful, sleeper, tomboy, athlete, sister, student, and Martian.” The researcher then prompted Alex to create a movement to be associated with each word. When asked later, Alex indicated that the movements she considered most “her” were those associated with “tomboy” and “athlete.”

Alex created a variety of movements that used the whole body, the space above her head as well as the ground, and spinning. A few of her movements went from high to low, and she ended with knees bent while using a deep voice. Most of Alex’s movements lacked Patterns of Total Body Connectivity as described by Hackney (2002). In other words, in this situation, engaging core muscles to support movement in other parts of her body did not come naturally to Alex. She and the researcher then put all of the movements together and practiced them in a variety of ways—slow, fast, reversed, with and without music, and so on. Alex’s tendency was to go as fast as possible through the movements. Each of the pair also completed the sequence separately for the other to witness. When the researcher performed Alex’s ID dance for her to witness, she waved the researcher out of the way at the end in order to let the researcher know “how it’s done.”

Session #5: Mid-curriculum

The researcher spent the first 30 min with Alex, and then 30 min with only the subject’s parents. Alex and the researcher sat on the floor and colored. During this drawing time, the researcher asked Alex about the first three curriculum sessions, specifically, what she has remembered and/or liked or disliked. During this process, Alex used the phrase “I don’t know” just twice. She remembered most from the Nutrition and Movement days, along with anything that involved making up movements or using props, but remembered little about activities and concepts from

the Mindfulness day. She identified her favorite thing about coming thus far as, "...doing the dance," and when asked about her least favorite aspect, she answered, "the worksheets," without hesitation. Toward the end of Alex's portion of the session, she expressed her wish to draw a penguin. The researcher invited her to draw the face of the penguin in an illustration of how she felt about coming for these sessions. Upon completing this drawing, which she described as "awkward," Alex was then invited to continue coloring in the lobby while the researcher met with her parents.

During 30 min with Alex's parents, the researcher shared themes of what had transpired during the first three curriculum sessions. The parents were surprised by and unaware of how much Alex enjoyed dancing, her preference in style of music, and the consistent theme of constipation, none of which they acknowledged having observed at home. In this session the researcher learned that the parents—and not a physician—had given Alex the "pre-diabetic" label in order to encourage her acceptance of outside resources and to simplify the explanation of her dietary restrictions. The parents explained their struggle in trying to balance their daughter's dietary needs at home with those of the rest of the family. They noted how Alex saw herself as a victim of the label, and was "oversensitive" to comments about her condition, as well as about her body and weight. The researcher described the impact this label seemed to be having on Alex based on observations to date, and why she might be unable to experience the parent's actions, while well intended, as supportive.

Both parents were open to and appreciative of the discussion, and voiced support for the work's usefulness to Alex thus far. One parent remarked that Alex had often been quiet on the ride home from sessions, and found in the silence evidence that, "A lot of very personal work is happening for her here," and stated that, "it's interesting because I think she's not excited about coming but she's glad she came when she leaves."

Session #6: Body Image

The researcher began by checking in with Alex, who reported being tired. She demonstrated playful regression—acting silly, making funny faces, and joking around. The researcher and subject performed a free-form movement warm up to music. Then, the researcher prompted Alex to create both "yes" and "no" movements as practice for knowing when she wanted to say "yes" or "no" in certain situations. Alex described her "yes" movement as "arms out... like a bird... strong... open." Using a deep voice, she indicated that her "no" movement was, "turtle... head goes in and out... [head is] down in the shell... gravity... pushes you down... feel like a small turtle... closed." Alex once again brought up constipation during this discussion.

The researcher then led Alex through the main activity for the day, the body image drawing exercise. Alex spent a large amount of time filling in her heart outline on the drawing. She opted not to draw anything that disclosed her gender. Nor did she draw anything to indicate negativity towards her body. When prompted to add to the image scars or other indicators of past events that may have happened

to her, or to her body, Alex asked, “Can it just be like a memory that sticks with us?” She was very physically active during this portion, standing up and examining her body to find the exact spots of scars to portray accurately on her drawing. When asked if this was a good body, she responded, “Yes.”

Session #7: Friendships

Alex joined the researcher in beginning the session by using movement, props, and voice to practice greetings. During this time, she used many *enclosing* movements (Kestenberg, Loman, Lewis, & Sossin, 1999), where her extremities were close to the center of her body, while she crept forward and used a “scary” voice. Next, Alex and the researcher used the whiteboard to brainstorm qualities that make people good friends. Alex identified, “creativity, sarcasm, strength, kindness, cool, generosity, trustworthy, sportsman-like, friendly, rich, wisdom-ness, respectful, awesome, chemistry/connection, fashion, and humor.”

The researcher and Alex then played a “Stepping Stone Questions” game, in which answering, “I don’t know,” was not permitted. Alex avoided answering questions regarding what she liked most and least about herself. The researcher then prompted Alex to come up with some examples to practice communication in conflict by using props and the phrase, “when you say/do ___, I feel ___.” To end, they passed the ball back and forth while finishing their conversation.

Session #8: Wellness Wheel

On this final curriculum day, Alex and the researcher began with a movement warm up. Alex introduced movements from her Identity Dance, and shared *sustained*, or slow and steady (Kestenberg, Loman, Lewis, & Sossin, 1999) versions of movements she often used throughout the curriculum. When told it was the last curriculum day and next week would be the final week, Alex made an “in-between” noise. Then, she joined the researcher in brainstorming on the white board the categories Alex wanted to include as the foundation of her Wellness Wheel, as the primary factors contributing to her wellness. While the researcher’s questions prompted some ideas, Alex came up with, “mindfulness, exercise/movement, nutrition, friendships, family, happiness, identity, body image/self-esteem, pets, and humor.”

Eschewing other available materials, Alex then used poster board and markers provided to draw her Wellness Wheel outline and its major categories. The researcher then prompted her to subdivide those categories and to indicate in some way her relationship to, or level of, current wellness regarding each one. Alex then chose from her wheel what she wanted to share with the researcher: (a) Humor, “laughter, smiles”; (b) Exercise, “sports, sportsmanship, energy, 95 %”; (c) Identity, “need it for driving, you need to be who you are not someone else”; (d) Family, “relationships, fun, 75 %-ish”; (e) Nutrition, “food, energy, no junk food, pre-diabetic-ness, body image and respect, 95 %”; (f) Friendship, “laughter, after-school activities, 75 %”; (g) Body Image, “fat, smart, big, small, thin, athletic,

unfair, fair, 75 %”; and (h) Happiness, “happy all around, sports, friends, family, 75 %-ish.”

Session #9: Post-curriculum

The final session consisted of 30 min spent with Alex and 30 min with her parents. The researcher made it clear to them at the beginning of the session that it was their last day together and asked Alex how she felt about it. Referencing the popsicle sticks, which she continued to do throughout the meeting, she responded, “eh...yellow.” One reason Alex was glad to be done was that she would receive \$15 that her parents had promised her for participating, which was new information for the researcher. After further discussion, the researcher invited Alex to revisit her “yes” and “no” movements, and challenged her to use those throughout the meeting instead of “I don’t know”/“sure,” which she ended up using just six times.

While playing a game of catch with Alex, the researcher recapped each curriculum day and asked Alex about favorite and least favorite aspects of their shared experience, as well as what Alex could remember of it. The adolescent’s favorite activities, which were part of the topics she knew most about, included a memorizing game and “sucking on the chocolate” from the Mindfulness day, coloring, and playing catch, which were done throughout the curriculum, “making a conversation with the frogs” from the Friendships day “making the [ID] dance” from the Movement day. She also pointed to the fact that she had appreciated time apart from her siblings. Her least favorite thing, and the only thing she could think of not enjoying, was again, the worksheets.

Alex also showed care toward the researcher and their relationship. When asked if there were something she would remember for a long time, she answered, “You” in a drawn out and playful voice. The researcher also shared personal appreciations with Alex. To close, Alex and the researcher discussed endings and goodbyes, and ended with a “goodbye dance,” using movement and voice to alternate saying goodbye to each other and enjoying laughter. Alex chose a prop to play with in the lobby while the researcher met with her parents.

The researcher recapped for the parents the last three curriculum days by describing overall themes and sharing relevant information. The parents took some time to share their opinions on the importance of having a program like this available to both young girls as well as boys, and reflected on the value of the program for Alex. One parent shared that before sessions Alex would often fuss about attending, and was “just a grouch the whole way” en route. By contrast, Alex was described as, “a complete polar opposite when I picked her up... she was floating on cloud nine... I think it’s so transformative here for her because she gets seen... that happened week after week.” When the researcher recommended individual counseling for Alex, the parents disclosed that she had been visiting a therapist for individual counseling sporadically during the time that she had been participating in the curriculum.

YQOL-R and Parent Surveys

Both the YQOL-R and Parent Surveys were completed at the participant's home at a time of their convenience pre-curriculum and post-curriculum before being mailed to the researcher.

Youth Quality of Life-Research Version (YQOL-R)

The YQOL-R, which its authors granted the researcher permission to use, measures quality of life in youth aged 11–18 with or without disabilities (Topolski, Edwards, & Patrick, 2009). It is a self-administered questionnaire, readable at the fourth-grade level, and takes about 15 min to complete. It has two types of items: perceptual, meaning that answers are only known to the participants themselves; and contextual, meaning that answers could be reported by others. There are four domains within the YQOL-R: (a) Sense of Self, (b) Social Relationships, (c) Culture and Community or Environment, and (d) General Quality of Life. Scores can be easily interpreted because they are translated to a 0-100 point scale, where higher scores indicate a better quality of life. The YQOL-R has been shown to have acceptable validity and reliability (Topolski, Edwards, & Patrick, 2009).

As shown in Fig. 1 in Appendix, the participant's pre-curriculum scores out of 100 were as follows: Self domain 81.43, Relationship domain 83.57, Environment domain 88, and General Quality of Life domain 93.33. Her overall Quality of Life score was 86.58. Also shown in Fig. 1 in Appendix, the participant's post-curriculum scores out of 100 were as follows: Self domain 87.14, Relationship domain 82.14, Environment domain 92, and General Quality of Life domain 93.33. Her post-curriculum overall Quality of Life score was 88.65.

In addition, it is important to report changes in some of the participant's specific answers from pre- to post-curriculum testing. On a 0-10 point scale, the participant's answers were lowered by 2–4 points from pre- to post-curriculum for questions regarding the following topics: handling general difficulties, and all questions regarding her parents and family (right amount of attention, feeling understood, getting along, and feeling useful to them). For questions regarding the following topics, the participant's scores increased by 2–5 points pre- to post-curriculum: doing things as well as she wanted, feeling comfortable with sexual feelings and behaviors, satisfaction with appearance, comfort with stress level, communicating with friends, and feeling safe at school.

The YQOL-R asks participants to choose from a menu the five most important areas in their life, as well as the five areas they would like to change for the better. Pre-curriculum, the participant listed as most important: (1) being safe; (2) being herself; (3) being able to relax and feel good; (4) getting support from the adults in her life; and (5) feeling that her life has meaning. Post-curriculum, she listed: (1) being herself; (2) having good physical health; (3) having freedom; (4) being safe; and (5) getting along with her family. Areas she would like to change for the better were listed as: (1) getting more support from adults in her life; (2) having more things she enjoys doing; (3) having better friends; (4) having better physical health; and (5) improving the way she looks, pre-curriculum. The participant's post-

curriculum list was: (1) getting along with her family better; (2) increasing her personal safety; (3) being able to relax and feel good more often; (4) improving the way she looks; and (5) getting more support from the adults in her life.

Parent Surveys

The instructions listed on both the pre- and post-curriculum parent surveys directed respondents not to disclose names on the survey, and to answer each question using five bullet points or fewer. It stipulated that the same parent(s) complete both the pre- and post-curriculum surveys. The following answers to the open-ended parent survey questions are quoted directly. The pre-curriculum questions and answers were: (1) What is your definition of wellness? “Wellness is peace and balance in soul, mind, body & community”; (2) What are your daughter’s strengths regarding wellness? “She enjoys being physically active, likes to learn, and enjoys engaging socially with people who demonstrate wellness”; (3) What are your daughter’s challenges regarding wellness? “Probably her relationship with food. There is a disconnection between food as fuel and how it impacts her mood and physical outlook”; (4) What topics do you feel are important to include in a psychoeducational holistic wellness curriculum for adolescent girls? “Candid discussion of puberty and adolescence. What it means to be “normal.” Why boys/men act the way they do—normal for them, but different than females. Physical & emotional safety boundaries related to dating.”

The post-curriculum questions and answers were: (1) What is your definition of wellness? “A sense of inner peace and well-being on all spokes of the Wellness Wheel, including physically, spiritually, emotionally”; (2) Do you feel that the wellness curriculum benefited your daughter’s wellness? “Yes. I think [Alex] has better appreciated herself”; (3) Which topic(s)/activities do you feel were the most important part of the curriculum? “Identity dance, one-on-one interaction”. (4) Which topic(s)/activities do you feel were the least important part of the curriculum? “Not sure. Not sure what all transpired”; (5) Which additional topics/activities do you feel should be included for future groups? “Unsure.”

Evaluation of Study

Themes and Interpretations

Alex often said she was tired at the beginning of sessions, but always participated fully. From pre- to post-curriculum, themes emerged with regard to Alex’s focus on various concepts, her movement and speech, her level of knowledge and/or comfort with curriculum topics, and her preference for certain types of activities.

One main theme that was repeated throughout the program was that of constipation. What began as a logical and creative association between unhealthy foods and bowel blockages continued as a seemingly less logical use of the word or related movement expression. Perhaps this behavior was in an effort to make the researcher laugh, or for some other more clinically relevant reason, but other issues

may have been involved. Given the program's psychoeducational focus, the researcher was not in a position to assess the clinical significance of Alex's repetitive use of the word *constipation*. It may, nonetheless, be noted that humor and laughter were important for Alex during every session and check-in meeting. Besides actively making jokes on a regular basis, she listed "humor" as one of the things that makes a person a good friend, and chose it as a separate main category on her Wellness Wheel.

Other concepts that surfaced repeatedly, and changed over time, were Alex's discussion and feelings around the "pre-diabetic" label given to her by her parents, her body and attitude towards it, along with her weight, and self-image. From pre- to post-curriculum, Alex spoke about being "pre-diabetic" in a way that was matter-of-fact, but indicative of frustration. Based on Alex's speech and behavior, the complexity of her relationship to her own body and bodies in general was obvious. She seemed to have taken on a goal of losing weight that was not all her own, and she often combined nutrition, movement, and body image into one idea. During the Body Image Drawing exercise, she drew nothing to show negativity towards her body, spent a large amount of time adding things to the heart section of her drawing, opted not to draw anything to indicate her gender, and when asked if this were a "good body," she responded, "Yes." Throughout the program, she described herself as both a tomboy and athlete. At one point, Alex said her friends wore "fashionable clothes" and "girl stuff" that "looks good," and made statements at various times about being honest and the importance of being "who you are, not someone else."

Themes in Alex's movement repertoire (Foster, 2004), were also observed. Whenever she was trying to make the researcher laugh, she used *enclosed* movements, and often a deep, "scary" voice. Throughout the program, she associated movement with exercise and sports, and was comfortable shaping her body into athletic positions. Movements that had been created on a previous day were often re-used during warm-ups or games, or while talking or drawing. In general, Alex was thoughtfully intentional when creating movements, but while playing she was also capable of applying a "first thought, best thought" mentality. When making art or creating movement, she was very direct in both behavior and speech. Yet, when asked questions by the researcher, she would often answer, "I don't know." or "Sure." in an indirect way.

Throughout the program there were topics and situations that gave the researcher a chance to observe Alex's level of knowledge and comfort, which sometimes overlapped, as well as to understand her preferences and general attitude towards her participation. Among all of the curriculum topics, Alex began the program with the most knowledge about and comfort with nutrition, movement, and friendships. She displayed less knowledge about and comfort with body image. As time went on, Alex remembered concepts from previous curriculum days and could articulate and demonstrate that knowledge. When reflecting on her time so far at the mid-curriculum check-in, she remembered most from the nutrition and movement days, along with anything that involved making up movements or using props. She remembered little about the activities and concepts from the mindfulness day, but was very comfortable when playing games with the researcher on that occasion.

At the mid- and post-curriculum check-ins, it was clear that Alex's favorite activities were from curriculum topics that she knew the most about. These included creation of her identity dance, mindful eating, role-played conversations using props, and all the games. The only task Alex ever told the researcher that she disliked was filling out worksheets. The worksheets offered Alex her own record of what had been written on the whiteboard, such as the words she came up with for her identity dance. Perhaps the way the researcher presented that task made it feel mandatory and similar to homework. Overall, Alex's attitude about participating became more positive over time, which would explain the level of disappointment she showed at the program's end. While these observations and interpretations may be subjective, the results from a more objective source, the YQOL-R, align closely with what the researcher observed throughout the program.

What is evident from the YQOL-R scores is that participating in the curriculum may have contributed to Alex learning more about herself and enjoying her life, since her Self Domain score increased by about seven points, and her Overall Quality of Life score increased by about two points. Her scores also grew on specific matters that had to do with such curricular goals as feeling comfortable with sexual feelings and behaviors, satisfaction with appearance, communicating with friends, and stress level. Taking into consideration the rest of her scores, and changes in specific answers, perhaps Alex was able to learn more about herself, including her wants and needs, which led to an increase in most scores. A slight decrease in her Relationship Domain score was due to a lower score on all of the questions regarding her parents and family, which could be explained by Alex ultimately having broader awareness of what she wanted, or perhaps by an external situation affecting the family, among other possibilities. Alex did not share with her family the things she created in sessions, such as her Body Image Drawing. When asked about it, she indicated that the thought made her uncomfortable.

Themes in the parents' comments during meetings, and from pre- and post-curriculum parent surveys, provide insight into some of Alex's behaviors and YQOL-R scores, as well as support for the researcher's observations. In general, throughout the program, both parents demonstrated support and commitment to Alex's health, and defined wellness from a holistic perspective. They expressed surprise at a few things that Alex presented in sessions, such as her love of dancing and music preference, but they agreed that she enjoyed making others laugh as often as possible. They were aware of the complex relationship Alex had with her body and food, and described her as having a "victim mentality"—showing oversensitivity with regard to these topics—and were consistently open to discussion and psychoeducation on how to support their daughter more fully. Based on the check-in meetings and surveys, both parents apparently felt that whatever was happening within sessions was beneficial to Alex. On the post-curriculum survey, Alex's parents stated that she had come to have greater appreciation for herself.

Relevance to Dance/Movement Therapy

Both qualitative and quantitative results support the use of DMT as the foundational modality for the psychoeducational curriculum described in the current study.

The experiential nature of DMT was shown to be an approach appropriate for Alex. She was most comfortable when playing games, dancing, and using props. These methods allowed her to practice communication skills and work on peer relationship concerns, even though she participated in the curriculum on an individual basis. When engaged in DMT, Alex showed behaviors different from those present during times restricted to verbal conversation.

As observed throughout, Alex's experience of DMT techniques led to a combination of memory, mastery, and enjoyment. The activities she was most comfortable with overlapped with those she reported liking best and came from curriculum topics about which she had gained the most knowledge. Also, she often repeated movements, either intentionally or unintentionally, from previous sessions. The only task Alex ever reported not enjoying was one with little overt connection to DMT—filling out worksheets.

Finally, DMT enabled Alex to learn more about herself, which was reflected in her pre- to post-curriculum YQOL-R scores. Through movement, she was able to brainstorm about, express, and own personal identities. Through movement, she was able to explore and experience the difference between “Yes” and “No” in her body, and what it felt like to express them fully. Through movement, she was able to be herself, with knowledge that, at least in this context, she would be respected and indeed celebrated.

Conclusion

This study examined the relationship between an adolescent female's overall wellness and her participation in a DMT-based holistic wellness curriculum, which focused on the topics of nutrition, mindfulness, movement, body image, and friendships. Both quantitative and qualitative data were gathered using the Youth Quality of Life-Research Version (YQOL-R) and parent surveys, as well as through analysis of session transcripts. Themes that emerged from these combined data suggest that the participant may have learned more about herself and how her body functions through exposure to the curriculum, and that the use of DMT was appropriate in this particular situation.

Limitations

While the current study yielded promising outcomes, there were limitations, as well. First, the setting for completion of the pre- and post-curriculum YQOL-R and parent surveys was uncontrolled. The participant could have completed the YQOL-R with or without coaching from her parents, and a different parent may have completed the parent survey each time. Secondly, the curriculum and study were originally designed for use with a group. While the participant received a more targeted approach and individualized attention, she missed the experience of learning within a community of peers, which is especially important for her population (Dayanim et al., 2006; James et al., 2011, McDonald, 2011; Wirth, 2012). Studying a group of

adolescent girls using the same DMT-based curriculum would allow for comparison of results between participants, and in turn, a possibility of generalizing outcomes.

A final limitation is the fact that because of the nature of this case study, its results cannot be generalized beyond the sole subject, except, perhaps, to someone with precisely the same demographic profile. In-depth examination of the participant's wellness supported the researcher's understanding of the effectiveness of a DMT-based curriculum in this particular context, but not necessarily in others.

Discoveries

Throughout implementation of the current study, the researcher discovered trends supported by both quantitative and qualitative results, and further endorsed in the relevant literature. First, the relationship cultivated between the researcher and participant was centrally important to the success of the study, for the quality of the therapeutic relationship is the factor with greatest impact on therapeutic outcomes (Lambert, & Barley, 2001).

Second, the researcher found it vital from the outset to apply a strengths-based approach with the participant, as some of the subject's internal and external issues, which had been framed as problems, were quite apparently affecting her negatively. This approach is in accord with the well-articulated view (Smith-Adcock et al., 2008) that when working to promote wellness among adolescent females one should focus on their resiliencies and strengths.

Last, it quickly became clear that it would be ideal for the parents to be actively involved in the curriculum's implementation. Typically, the health of an adolescent girl starts with her caregivers and is influenced by the overall lifestyle of her family (Franko et al., 2008; Hendrie et al., 2013; Quick, et al., 2013; Rutten et al., 2013; Siegel, 2013).

Future Research

The majority of research on this wellness topic has been conducted with Caucasian female subjects. Only two articles found on the topic of nutrition enrolled adolescent female participants who did not identify as Caucasian (Allen et al., 2007; Talpade, 2008). In order to fully understand which sector of the population is truly most at risk, and if the DMT-based holistic wellness curricula are broadly effective, other populations including males, groups, and older and younger subjects, must be studied. Given how much the participant in the current study learned from the curriculum, which included a diverse range of topics; it would be valuable to focus more deeply on these topics for longer periods of time.

In conclusion, by incorporating DMT seamlessly into a psychoeducational holistic wellness model, the researcher experienced first hand the overt difference in Alex's behavior when an experiential approach was used. Although the study of one individual cannot contribute *statistical significance* to the field, the program described here is demonstrably valuable and has the potential to contribute to the well-being of many others. The education and experience Alex shared with the researcher may have planted a small seed that will blossom in time, if afforded the

right environmental support. Perhaps some years hence Alex will dissuade a friend from terrorizing a peer, whether through aggressive online postings or otherwise. Undoubtedly, that would be a *significant* outcome.

Appendix

See Fig. 1.

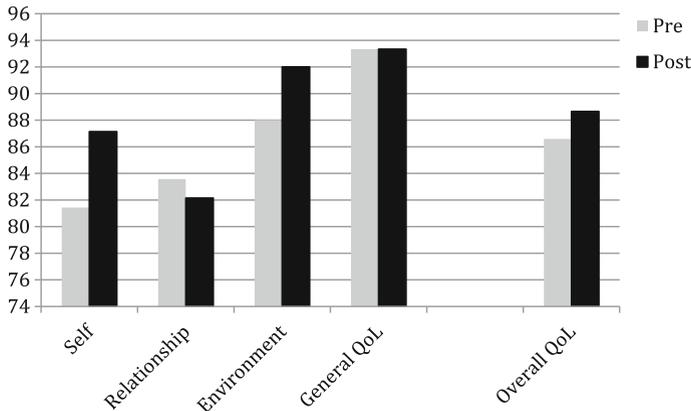


Fig. 1 YQOL-R Scores Pre- and Post-Curriculum. *Note* Percentage scores are based on a 100-point scale. Each of the four domains (Self, Relationship, Environment, and General Quality of Life) is weighted equally to produce the Overall Quality of Life score. *Gray* indicates scores obtained before starting the curriculum, while *black* indicates scores obtained after completion of the curriculum

References

- Adams, M. A., Johnson, W. D., & Tudor-Locke, C. (2013). Steps/day translation of the moderate-to-vigorous physical activity guideline for children and adolescents. *International Journal of Behavioral Nutrition and Physical Activity*, *10*(49), 1–11. doi:10.1186/1479-5868-10-49.
- Allen, M. L., Elliott, M. N., Morales, L. S., Diamant, A. L., Hambarsoomian, K., & Schuster, M. (2007). Adolescent participation in preventive health behaviors, physical activity, and nutrition: Differences across immigrant generations for Asians and Latinos compared with Whites. *American Journal of Public Health*, *97*(2), 337–343.
- American Dance Therapy Association (2009). About dance/movement therapy. Retrieved from http://www.adta.org/About_DMT
- Baggett, C. D., Stevens, J., Catellier, D. J., Evenson, K. R., McMurray, R. G., He, K., & Treuth, M. S. (2010). Compensation or displacement of physical activity in middle-school girls: The trial of activity for adolescent girls. *International Journal of Obesity*, *34*, 1193–1199. doi:10.1038/ijo.2010.31.
- Benn, R., Akiva, T., Arel, S., & Roeser, R. W. (2012). Mindfulness training effects for parents and educators of children with special needs. *Developmental Psychology*, *48*(5), 1476–1487. doi:10.1037/a0027537.
- Benton, D. (2004). Role of parents in the determination of the food preferences of children and the development of obesity. *International Journal of Obesity*, *28*, 858–869.

- Betty, A. (2013). Taming tidal waves: A Dance/movement therapy approach to supporting emotion regulation in maltreated children. *American Journal of Dance Therapy*, 35, 39–59. doi: [10.1007/s10465-013-9152-3](https://doi.org/10.1007/s10465-013-9152-3).
- Black, D. S. (2009). A brief definition of mindfulness. *Mindfulness Research Guide*, 1–2. Retrieved from www.mindfulexperience.org
- Boulder Valley School District (BVSD) (2011). Youth risk behavior survey packet, 1–52. Retrieved from <http://www.bouldercounty.org/doc/publichealth/yrbs2011bvsdmsreport.pdf>
- Boutelle, K. N., Hannan, P., Fulkerson, J. A., Crow, S., & Stice, E. (2010). Obesity as a prospective predictor of depression in adolescent females. *Health Psychology*, 29(3), 293–298. doi: [10.1037/a0018645](https://doi.org/10.1037/a0018645).
- Brown, K. W., West, A. M., Loverich, T. M., & Biegel, G. M. (2011). Assessing adolescent mindfulness: Validation of an adapted mindful attention awareness scale in adolescent normative and psychiatric populations. *Psychological Assessment*. doi:[10.1037/a0021338](https://doi.org/10.1037/a0021338). (Advance online publication).
- Capello, P. P. (2008). Dance/movement therapy with children throughout the world. *American Journal of Dance Therapy*, 30, 24–36. doi:[10.1007/s10465-008-9045-z](https://doi.org/10.1007/s10465-008-9045-z).
- Charney, M. (2000). *Embodied theatre: The application of drama therapy and somatic psychotherapy with adolescents*, Unpublished master's thesis, Naropa University, Boulder, CO.
- Cohen, B. B. (2011). About body-mind centering. Retrieved from www.bodymindcentering.com/about
- Crick, N. R., & Nelson, D. A. (2002). Relational and physical victimization within friendships: Nobody told me there'd be friends like these. *Journal of Abnormal Child Psychology*, 30(6), 599–607.
- Croll, J. K., Neumark-Sztainer, D., & Story, M. (2001). Healthy eating: What does it mean to adolescents? *Journal of Nutrition Education*, 33(4), 193–198.
- Croll, J., Neumark-Sztainer, D., Story, M., & Ireland, M. (2002). Prevalence and risk and protective factors related to disordered eating behaviors among adolescents: Relationship to gender and ethnicity. *Journal of Adolescent Health*, 31, 166–175.
- Dayanim, S., Goodill, S. W., & Lewis, C. (2006). The moving story effort assessment as a means for the movement assessment of preadolescent children. *American Journal of Dance Therapy*, 28(2), 87–106. doi:[10.1007/s10465-006-9016-1](https://doi.org/10.1007/s10465-006-9016-1).
- Dwyer, J. J., Allison, K. R., Goldenberg, E. R., Fein, A. J., Yoshida, K. K., & Boutilier, M. A. (2006). Adolescent girls' perceived barriers to participation in physical activity. *Adolescence*, 41(161), 75–89.
- Foster, M. A. (2004). *Somatic patterning*. Longmont, CO: EMS Press.
- Fraenkel, D. L. (1983). The relationship of empathy in movement to synchrony, echoing, and empathy in verbal interactions. *American Journal of Dance Therapy*, 6, 31–48.
- Franko, D. L., Thompson, D., Bauserman, R., Affenito, S. G., & Striegel-Moore, R. H. (2008). What's love got to do with it? Family cohesion and healthy eating behaviors in adolescent girls. *International Journal of Eating Disorders*, 41(4), 360–367.
- Fried, S. (1997). Bullies & victims: Children abusing children. *American Journal of Dance Therapy*, 19(2), 127–133.
- Gebremariam, M. K., Bergh, I. H., Andersen, L. F., Ommundsen, Y., Totland, T. H., Bjelland, M., et al. (2013). Are screen-based sedentary behaviors longitudinally associated with dietary behaviors and leisure-time physical activity in the transition into adolescence? *International Journal of Behavioral Nutrition and Physical Activity*, 10(9), 1–8. doi:[10.1186/1479-5868-10-9](https://doi.org/10.1186/1479-5868-10-9).
- Grönlund, E., Renck, B., & Weibeull, J. (2006). Dance/movement therapy as an alternative treatment for young boys diagnosed as ADHD: A Pilot study. *American Journal of Dance Therapy*, 27(2), 63–85. doi:[10.1007/s10465-005-9000-1](https://doi.org/10.1007/s10465-005-9000-1).
- Growe Foundation (2013). About us. Retrieved from <http://growefoundation.org/>
- Gutman, L. M., & Eccles, J. S. (2007). Stage-environment fit during adolescence: Trajectories of family relations and adolescent outcomes. *Developmental Psychology*, 43(2), 522–537.
- Hackney, P. (2002). *Making connections: Total body integration through Bartenieff Fundamentals*. New York, NY: Routledge.
- Hannaford, C. (2005). *Smart moves: Why learning is not all in your head* (2nd ed.). Salt Lake City, UT: Great River Books.
- Harvey, S. (1989). Creative arts therapies in the classroom: A Study of cognitive, emotional, and motivational changes. *American Journal of Dance Therapy*, 11(2), 85–100.
- Hendrie, G., Sohonpal, G., Lange, K., & Golley, R. (2013). Change in the family food environment is associated with positive dietary change in children. *International Journal of Behavioral Nutrition and Physical Activity*, 10(4), 1–11. doi:[10.1186/1479-5868-10-4](https://doi.org/10.1186/1479-5868-10-4).

- Ho, R. T. (2006). Regaining balance within: Dance movement therapy with Chinese cancer patients in Hong Kong. *American Journal of Dance Therapy*, 27(2), 87–99. doi:10.1007/s10465-005-9002-z.
- Hofmann, S. G., Sawyer, A. T., Witt, A. A., & Oh, D. (2010). The effect of mindfulness-based therapy on anxiety and depression: A Meta-analytic review. *Journal of Consulting and Clinical Psychology*, 78(2), 169–183. doi:10.1037/a0018555.
- Houlston, C., & Smith, P. K. (2009). The impact of a peer counselling scheme to address bullying in an all-girl London secondary school: A short-term longitudinal study. *British Journal of Educational Psychology*, 79, 69–86.
- Hülshager, U. R., Alberts, H. J. E. M., Feinholdt, A., & Lang, J. W. B. (2013). Benefits of mindfulness at work: The role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. *Journal of Applied Psychology*, 98(2), 310–325. doi:10.1037/a0031313.
- Jago, R., Davis, L., McNeill, J., Sebire, S. J., Haase, A., Powell, J., & Cooper, A. R. (2011). Adolescent girls' and parents' views on recruiting and retaining girls into an after-school dance intervention: Implications for extra-curricular physical activity provision. *International Journal of Behavioral Nutrition and Physical Activity*, 8(91), 1–9. doi:10.1186/1479-5868-8-91.
- James, D., Flynn, A., Lawlor, M., Courtney, P., Murphy, N., & Henry, B. (2011). A friend in deed? Can adolescent girls be taught to understand relational bullying? *Child Abuse Review*, 20, 439–454.
- Jelalian, E., Sato, A., & Hart, C. N. (2011). The effect of group-based weight-control intervention on adolescent psychosocial outcomes: Perceived peer rejection, social anxiety, and self-concept. *Children's Health Care*, 40, 197–211. doi:10.1080/02739615.2011.590391.
- Jensen, C. G., Vangkilde, S., Frokjaer, V., & Hasselbalch, S. G. (2012). Mindfulness training affects attention—Or is it attentional effort? *Journal of Experimental Psychology*, 141(1), 106–123. doi:10.1037/a0024931.
- Kernis, M. H. (2003). Toward a conceptualization of optimal self-esteem. *Psychological Inquiry*, 14(1), 1–26.
- Kestenberg, J. A., Loman, S., Lewis, P., & Sossin, K. M. (1999). *The meaning of movement: Developmental and clinical perspectives of the Kestenberg Movement Profile*. New York, NY: Brunner-Routledge.
- Kierr, S. (2011). Is dance/movement therapy relevant to the process of achieving a healthy sexuality? *American Journal of Dance Therapy*, 33, 42–56. doi:10.1007/s10465-011-9103-9.
- Killen, J. D., Taylor, C. B., Hammer, L. D., Litt, I., Wilson, D. M., Rich, T., et al. (1993). An attempt to modify unhealthful eating attitudes and weight regulation practices of young adolescent girls. *International Journal of Eating Disorders*, 13(4), 369–384.
- Kim, Y. S., & Leventhal, B. (2008). Bullying and suicide. A review. *International Journal of Adolescent Medical Health*, 20(2), 133–154.
- Koch, S. C., & Fischman, D. (2011). Embodied enactive dance/movement therapy. *American Journal of Dance Therapy*, 33, 57–72. doi:10.1007/s10465-011-9108-4.
- Koshland, L., Wilson, J., & Wittaker, B. (2004). PEACE through dance/movement: Evaluating a violence prevention program. *American Journal of Dance Therapy*, 26(2), 69–90.
- Krantz, A. M. (1999). Growing into her body: Dance/movement therapy for women with eating disorders. *American Journal of Dance Therapy*, 21(2), 81–103.
- La Torre, M. A. (2008). The role of body movement in psychotherapy. *Perspectives in Psychiatric Care*, 44(2), 127–130.
- Lambert, M. J., & Barley, D. E. (2001). Research summary on the therapeutic relationship and psychotherapy outcome. *Psychotherapy*, 38(4), 357–361.
- Levy, F. J. (2005). *Dance movement therapy: A Healing art (Revised Edition)*. Reston, VA: American Alliance for Health, Physical Education, Recreation, and Dance.
- Lubans, D. R., Morgan, P. J., Dewar, D., Collins, C. E., Plotnikoff, R. C., Okely, A. D., et al. (2010). The nutrition and enjoyable activity for teen girls (NEAT girls) randomized controlled trial for adolescent girls from disadvantaged secondary schools: Rationale, study protocol, and baseline results. *BMC Public Health*, 10(652), 1–14. doi:10.1186/1471-2458-10-652.
- Lytle, L. A., Murray, D. M., Evenson, K. R., Moody, J., Pratt, C. A., Metcalfe, L., & Parra-Medina, D. (2009). Mediators affecting girls' levels of physical activity outside of school: Findings from the trial of activity in adolescent girls. *Annals of Behavioral Medicine*, 38, 124–136. doi:10.1007/s12160-009-9127-2.
- Marsee, M. A., Weems, C. F., & Taylor, L. K. (2008). Exploring the association between aggression and anxiety in youth: A look at aggressive subtypes, gender, and social cognition. *Journal of Child and Family Studies*, 17, 154–168. doi:10.1007/s10826-007-9154-1.

- Mâsse, L., & Niet, J. E. (2013). School nutritional capacity, resources and practices are associated with availability of food/beverage items in schools. *International Journal of Behavioral Nutrition and Physical Activity*, *10*(26), 1–12. doi:10.1186/1479-5868-10-26.
- McDonald, K. E. (2011). Transcultural wellness: An exploratory study. *Journal of Multicultural Counseling and Development*, *39*(4), 241–253.
- McGuire, M. T., Hannan, P. J., Neumark-Sztainer, D., Cossrow, N. H., & Story, M. (2002). Parental correlates of physical activity in a racially/ethnically diverse adolescent sample. *Journal of Adolescent Health*, *30*, 253–261.
- McMaster, L. E., Connolly, J., Pepler, D., & Craig, W. (2002). Peer to peer sexual harassment in early adolescence: A developmental perspective. *Development and Psychopathology*, *14*, 91–105.
- Moses, N., Baniliviy, M., & Lifshitz, F. (1989). Fear of obesity among adolescent girls. *Pediatrics*, *83*(3), 393–398.
- Myers, J. E., Luccht, R. M., & Sweeney, T. J. (2004). The factor structure of wellness: Reexamining theoretical and empirical models underlying the wellness evaluation of lifestyle (WEL) and the five-factor wel. *Measurement and Evaluation in Counseling and Development*, *36*(4), 194–208.
- Myers, J. E., & Sweeney, T. J. (2008). Wellness counseling: The evidence base for practice. *Journal of Counseling and Development*, *86*, 482–493.
- Myers, J. E., Sweeney, T. J., & Witmer, J. M. (2000). The wheel of wellness counseling for wellness: A holistic model for treatment planning. *Journal of Counseling and Development*, *78*(3), 251–266.
- Myers, J. E., Willse, J. T., & Villalba, J. A. (2011). Promoting self-esteem in adolescents: The influence of wellness factors. *Journal of Counseling & Development*, *89*, 28–36.
- National Institute of Child Health and Human Development. How does bullying affect health & well being? Retrieved from www.nichd.nih.gov, September 21, 2013.
- National Institute of Mental Health. Suicide in the U.S.: Statistics and prevention. Retrieved from www.nimh.nih.gov, September 8, 2013.
- Patterson, J. E. (2001). Training: The missing link in creating collaborative care. *Families, Systems & Health*, *19*(1), 53–57.
- Paxton, S. J., Eisenberg, M. E., & Neumark-Sztainer, D. (2006). Prospective predictors of body dissatisfaction in adolescent girls and boys: A five-year longitudinal study. *Developmental Psychology*, *42*(5), 888–899. doi:10.1037/0012-1649.42.5.888.
- Pratt, K. J., Lamson, A. L., Collier, D. N., Crawford, Y. S., Harris, N., Gross, K., et al. (2009). Camp golden treasures: A multidisciplinary weight-loss and a healthy lifestyle camp for adolescent girls. *Families, Systems, & Health*, *27*(1), 116–124. doi:10.1037/a0014912.
- Quick, V., Wall, M., Larson, N., Haines, J., & Neumark-Sztainer, D. (2013). Personal, behavioral and socio-environmental predictors of overweight incidence in young adults: 10-yr longitudinal findings. *International Journal of Behavioral Nutrition and Physical Activity*, *10*(37), 1–13. doi:10.1186/1479-5868-10-37.
- Ramseyer, F., & Tschacher, W. (2011). Nonverbal synchrony in psychotherapy: Coordinated body movement reflects relationship quality and outcome. *Journal of Consulting and Clinical Psychology*, *79*(3), 284–295. doi:10.1037/a0023419.
- Robins, R. W., Trzeniewski, K. H., Tracy, J. L., Gosling, S. D., & Potter, J. (2002). Global self-esteem across the life span. *Psychology and Aging*, *17*(3), 423–434. doi:10.1037/0882-7974.17.3.423.
- Rose, M. (2001). The body doesn't lie: Five tales of superobesity as somatic language. *Psychoanalytic Inquiry*, *21*(3), 337–355.
- Rosnov, D. L., Roberts, M. C., Kessler, E. D., Pendley, J. S., Datto, G., & Hassink, S. (2011). Acceptability of weight-loss interventions among adolescents who are overweight and their caregivers. *Children's Health Care*, *40*, 179–196. doi:10.1080/02739615.2011.590386.
- Ross, K. M., Liu, S., Tomfohr, L. M., & Miller, G. E. (2013). Self-esteem variability predicts arterial stiffness trajectories in healthy adolescent females. *Health Psychology*, *32*(8), 869–876. doi:10.1037/a0031458.
- Rowe, F., Stewart, D., & Somerset, S. (2010). Nutrition education: Towards a whole-school approach. *Health Education*, *110*(3), 197–208. doi:10.1108/09654281011038868.
- Rutten, G. M., Savelberg, H. H., Biddle, S. J., & Kremers, S. P. (2013). Interrupting long periods of sitting: Good STUFF. *International Journal of Behavioral Nutrition and Physical Activity*, *10*(1), 1–3. doi:10.1186/1479-5868-10-1.
- Sallis, J. F., Prochaska, J. J., & Taylor, W. C. (2000). A review of correlates of physical activity of children and adolescents. *Medical Science Sports and Exercise*, *32*, 963–975.

- Savage, J. S., DiNallo, J. M., & Downs, D. S. (2009). Adolescent body satisfaction: The role of perceived parental encouragement for physical activity. *International Journal of Behavioral Nutrition and Physical Activity*, 6(90), 1–8. doi:[10.1186/1479-5868-6-90](https://doi.org/10.1186/1479-5868-6-90).
- Searcy, Y. D. (2007). Placing the horse in front of the wagon: Toward a conceptual understanding of the development of self-esteem in children and adolescents. *Child and Adolescent Social Work Journal*, 24(2), 121–131. doi:[10.1007/s10560-006-0079-9](https://doi.org/10.1007/s10560-006-0079-9).
- Shao, R., & Skarlicki, D. P. (2009). The role of mindfulness in predicting individual performance. *Canadian Journal of Behavioral Sciences*, 41(4), 195–201. doi:[10.1037/a0015166](https://doi.org/10.1037/a0015166).
- Sheets-Johnstone, M. (2010). Why is movement therapeutic? *American Journal of Dance Therapy*, 32, 2–15. doi:[10.1007/s10465-009-9082-2](https://doi.org/10.1007/s10465-009-9082-2).
- Shute, R., Ownes, L., & Slee, P. (2008). Everyday victimization of adolescent girls by boys: Sexual harassment, bullying or aggression? *Sex Roles*, 58, 477–489. doi:[10.1007/s11199-007-9363-5](https://doi.org/10.1007/s11199-007-9363-5).
- Siegel, D. (2013). *Brainstorm: The power and purpose of the teenage brain*. New York, NY: Penguin Group.
- Smith-Adcock, S., Webster, S. M., Leonard, L. G., & Walker, J. L. (2008). Benefits of a holistic group counseling model to promote wellness for girls at risk for delinquency: An exploratory study. *Journal of Humanistic Counseling, Education and Development*, 47, 111–126.
- Sonneville, K. R., Calzo, J. P., Horton, N. J., Haines, J., Austin, S. B., & Field, A. E. (2012). Body satisfaction, weight gain and binge eating among overweight adolescent girls. *International Journal of Obesity*, 36, 944–949.
- Springer, A. E., Kelder, S. H., & Hoelscher, D. M. (2006). Social support, physical activity and sedentary behavior among 6th-grade girls: A cross-sectional study. *International Journal of Behavior, Nutrition, and Physical Activity*, 3(8), 1–10.
- Srabstein, J. (2008). Deaths linked to bullying and hazing. *International Journal of Adolescent Medical Health*, 20(2), 235–239.
- Srabstein, J., & Leventhal, B. (2010). Prevention of bullying-related morbidity and mortality: A Call for public health policies. *Bulletin of the World Health Organization*, 88(6), 403. doi:[10.2471/BLT.10.077123](https://doi.org/10.2471/BLT.10.077123).
- Stice, E., & Bearman, S. K. (2001). Body-image and eating disturbances prospectively predict increases in depressive symptoms in adolescent girls: A growth curve analysis. *Developmental Psychology*, 37(5), 597–607. doi:[10.1037/0012-1649.37.5.597](https://doi.org/10.1037/0012-1649.37.5.597).
- Stice, E., Presnesll, K., Shaw, H., & Rohde, P. (2005). Psychological and behavioral risk factors for obesity onset in adolescent girls: A prospective study. *Journal of Consulting and Clinical Psychology*, 73(2), 195–202. doi:[10.1037/0022-006X.73.2.195](https://doi.org/10.1037/0022-006X.73.2.195).
- Stinson, D. A., Logel, C., Zanna, M. P., Holmes, J. G., Cameron, J. J., Wood, J. V., & Spencer, S. J. (2008). The cost of lower self-esteem: Testing a self- and social-bonds model of health. *Journal of Personality and Social Psychology*, 94(3), 412–428. doi:[10.1037/0022-3514.94.3.412](https://doi.org/10.1037/0022-3514.94.3.412).
- Susman, E. J. (2001). Mind-body interaction and development: Biology, behavior and context. *European Psychologist*, 6(3), 163–171.
- Swami, V., & Harris, A. S. (2012). Dancing toward positive body image? Examining body-related constructs with ballet and contemporary dancers at different levels. *American Journal of Dance Therapy*, 34, 39–52. doi:[10.1007/s10465-012-9129-7](https://doi.org/10.1007/s10465-012-9129-7).
- Talpade, M. (2008). Hispanic versus African American girls: Body image, nutrition, and puberty. *Adolescence*, 43(169), 119–127.
- Tanofsky-Kraff, M., Wilfley, D. E., Young, J. F., Mufson, L., Yanovski, S. Z., Glasofer, D. R., et al. (2010). A pilot study of interpersonal psychotherapy for preventing excess weight gain in adolescent girls at-risk for obesity. *International Journal of Eating Disorders*, 43(8), 701–706.
- Thom, L. (2010). From simple line to expressive movement: The use of creative movement to enhance socio-emotional development in the preschool curriculum. *American Journal of Dance Therapy*, 32, 100–112. doi:[10.1007/s10465-010-9090-2](https://doi.org/10.1007/s10465-010-9090-2).
- Thomsen, S. R., Weber, M. M., & Brown, L. B. (2002). The relationship between reading beauty and fashion magazines and the use of pathogenic dieting methods among adolescent females. *Adolescence*, 37(145), 1–18.
- Topolski, T. D., Edwards, T. C., & Patrick, D. L. (2009). *Youth quality of life instruments U.S. version: User's manual and interpretation guide* (1st ed.). Seattle, WA: Seattle Quality of Life Group, University of Washington.
- Turner, H. M., Rose, K. S., & Cooper, M. J. (2005). Schema and parental bonding in overweight and nonoverweight female adolescents. *International Journal of Obesity*, 29, 381–387. doi:[10.1038/sj.ijo.0802915](https://doi.org/10.1038/sj.ijo.0802915).

- Way, B. M., Creswell, J. D., Eisenberger, N. I., & Lieberman, M. D. (2010). Dispositional mindfulness and depressive symptomatology: Correlations with limbic and self-referential neural activity during rest. *Emotion, 10*(1), 12–24. doi:[10.1037/a0018312](https://doi.org/10.1037/a0018312).
- Williams, P. G., Holmbeck, G. N., & Greenley, R. N. (2002). Adolescent health psychology. *Journal of Consulting and Clinical Psychology, 70*(3), 828–842. doi:[10.1037//0022-006X.70.3.828](https://doi.org/10.1037//0022-006X.70.3.828).
- Winter, A. F. (2008). Emotion, embodiment, and mirror neurons in dance/movement therapy: A connection across disciplines. *American Journal of Dance Therapy, 30*, 84–105. doi:[10.1007/s10465-008-9054-y](https://doi.org/10.1007/s10465-008-9054-y).
- Wirth, J. L. (2012). *The effect of a classroom intervention on adolescent wellness, success skills, and academic performance*. Published doctoral dissertation, Florida Atlantic University.

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