

Recreational Ballet Students: The Mirror Image of Professional Ballet Aesthetics?

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The present study investigated body dissatisfaction, drive for thinness, perfectionism, and asceticism in a sample of recreational ballet students and preprofessional ballet students. We questioned whether the differences between the two groups in weight pressures would be reflected in how students perceived themselves. Fifty-five ballet students (23 recreational and 32 preprofessional) completed the Body Image Silhouettes subscale of the Kids Eating Disorder Survey, the Eating Disorder Inventory-3, and a demographics questionnaire. Results indicate the recreational ballet students did not differ significantly from the preprofessional ballet students. Both groups of dancers reported an ideal ballet body image that was significantly smaller than their ideal body image. Recreational ballet students, however, reported a significantly larger perceived body image than preprofessional ballet students.

Anorexia. Common associations with this word are bones, starvation, and pathology. To ballet dancers, these familiar associations are often hidden by what they perceive as the more important concerns of success, beauty and perfection. The high prevalence of eating disorders seen in ballet dancers is not a new phenomenon; however, there is more to this correspondence than what lies on the surface. Ballerinas need more than grace and perfect technique in order to be successful in their career; they also need to be particularly thin. The thin-ideal pressures become stronger in the ballet world as the pressures in the larger society increase (McPhee, 2000).

Definitions of Eating Disorders

The *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)*, recognizes three types of eating disorders: anorexia nervosa, bulimia nervosa, and eating disorder, not otherwise specified (American Psychiatric Association, 2000). Within these major categories lie subcategories as well.

Anorexia nervosa. According to the DSM-IV-TR, anorexia nervosa is identified by an intense fear of gaining weight, refusal to maintain a minimally normal weight, a disturbance in one's body perception, the absence of at least three consecutive menstrual cycles, and weight loss by a reduction in food intake or purging (APA, 2000). This weight loss or failure to gain weight leads to a continuance of body weight at less than 85% of what is considered typical for one's height. By divid-

ing weight in kilograms by height in meters squared, an individual can determine her¹ body mass index (BMI). A BMI below 18.5 is considered underweight, although a BMI below 17.5 is a diagnostic criterion for anorexia nervosa (APA, 2000).

Bulimia nervosa. Although bulimia nervosa varies from anorexia nervosa, one main underlying force feeds both disorders—control. While people with anorexia nervosa compensate for their feelings of loss of control by exerting too much control over their food intake, those with bulimia nervosa actually lose control during a binge. A binge is defined as eating a larger than normal amount of food in a discrete period of time (APA, 2000). In order to erase the effects from the binge, one may engage in some type of compensatory behavior, with 80–90% of those with bulimia nervosa using self-induced vomiting. Binge eating and compensatory behaviors must occur on average two times a week for at least three months in order to meet diagnostic criteria for bulimia nervosa.

Eating disorder, not otherwise specified. The largest category of eating disorders—eating disorder, not

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¹ For the purpose of this study, the research focuses on females, even though a weight-obsessed culture can also affect males. Ten percent of individuals with anorexia nervosa and ten percent of individuals with bulimia nervosa are male (APA, 2000).

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otherwise specified (EDNOS)-includes all clinically significant disorders of eating that do not meet the complete diagnostic criteria for anorexia nervosa or bulimia nervosa, as indicated by the DSM-IV-TR (Keel, 2005). A form of EDNOS that pertains to athletes is called anorexia athletica. Athletes with anorexia athletica tend to have a better prognosis than eating disordered nonathletes. The findings are such because this type of eating disorder is more focused on the behavioral level rather than on a deeper level of psychopathology (Bachner-Melman, Zohar, Ebstein, Elizur, & Constantini, 2006).

With a high emphasis on weight loss, it is clear how having an eating disorder impairs women's ability to see their bodies clearly, as most of these women see themselves as fat or overweight when they actually are not. Body image can be defined as the internal representation of one's own perception of one's outer appearance. Feingold (as cited in Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999) conducted a meta-analysis of attractiveness research. He specifically evaluated the subjective versus the objective nature of attractiveness. Feingold concluded, with regard to women, that only 6% of their assessment of appearance was determined by actual attractiveness. The other 94% of how women saw themselves was consequently due to outside influences, such as the media, culture and other people's opinions (Thompson et al., 1999).

Eating Disorders In Ballet

Thinness was not always of great importance in the ballet community (Thompson et al., 1999). George Balanchine, founder of the New York City Ballet, set the standards for the ideal ballet look over 60 years ago that are still in place today. These standards are based on a straight body-long limbs, long neck, flat chest, toned muscles, good proportions-what some may refer to as the anorexic look or otherwise known as the prepubertal look (Ackard, Henderson, & Wonderlich, 2004). Balanchine wanted to see the bones in his dancers, and this was often the way he explained his image to these women (Thompson et al., 1999). Women with a delay in menarche are more likely to achieve Balanchine's perfect long and lean body, as opposed to women with early or on time maturation (Hamilton, Brooks-Gunn, & Warren, 1986). Although some girls are genetically predisposed to mature later than others, young girls can influence the time at which they reach menarche by reducing their body fat composition through disordered patterns of eating.

In the ballet world it is the other dancers, teachers, and role models who promote the ballet ideal on a daily basis. They surround young girls aspiring to become ballet dancers, and are especially influential. Due to the high respect and/or fear dancers have for

their teachers, dancers are willing to do what they are told and comply with whatever regimen they are faced with in order to achieve the ideal body type (Benn & Walters, 2001). Thinness in the dance world is not equivalent to thinness in the larger society. Dancer thin is comparable to the diagnostic criterion of anorexia nervosa, with the percentage of body fat being almost identical. Although most people in the dance world can attest to the prevalence of disturbed eating, it still remains dancers' "dirty little secret" (McPhee, 2000).

The pressure to achieve the dancer-thin ideal is not only placed on professional adult dancers. Weight concerns in aesthetic sports are prevalent in younger children (Bachner-Melman et al., 2006). In a study by Ackard, et al. (2004), children as young as age 5 years who were dancers scored higher on a subscale for weight concern than their nondancer peers. These children understood the behaviors and beliefs that surround them and internalized these messages as something that needed to be done to fit in. For example, a 12-year-old dancer in the documentary, *Dying To Be Thin*, revealed that she was told to lose weight and comprehended that when she was thinner, her teachers nurtured her, gave her more attention and awarded her with better roles. She further reported that when she started gaining some of the weight back, she felt ashamed, weak, and like a failure (McPhee, 2000). In fact, adolescent ballet dancers often view themselves as less desirable, less attractive, and less confident than their peers who are not dancers (Price & Pettijohn, 2006). Not surprisingly, adolescent ballet dancers are dramatically more at risk for developing an eating disorder than their peers who are not ballet dancers (Thomas, Keel, & Heatherton, 2005).

The Present Study

The dance community as a whole may be the most obsessively weight conscious subculture in the nation. The present study investigated body perception to determine if female adolescent ballet dancers shared similar perceptions of the ideal ballet body, as well as how this perception affected the students' perception of themselves, both in the ballet culture and larger society. It further compared body image perceptions and weight concerns between adolescent dancers at two different levels of involvement in the art: recreational and preprofessional ballet students. The study examined whether the differences in weight pressures from dance teachers and directors across studio types would influence how students perceived themselves. Last, this study assessed characteristics prevalent in both people with eating pathology and ballet dancers (e.g., perfectionism and drive for thinness).

Method

Participants

Fifty-five ballet students from six dance studios in the metropolitan area of a large East Coast city completed this study. Dance studio owners were contacted via e-mail and telephone with a description of the study and were asked if they had an interest in participating. Once permission was granted, directors' signatures were collected and parental consent forms were handed out to all students eligible for participation. Inclusion criteria for the study were: women, age range 11–17 years, and participation in at least one ballet class per week. Involvement in the study was voluntary and required parental consent because all participants were minors. The average age of the participants was 14.3 years. The majority of participants, 54.5%, were Caucasian, while 34.5% were African American, 7.3% Hispanic, and 3.6% "other."

The comparative groups included 32 ballet students from preprofessional ballet studios and 23 dance students from recreational dance studios. For the purposes of this study, dance studios were preclassified as preprofessional or recreational based on criteria generally established in the literature on dance education (Thomas et al., 2005). Preprofessional studios were identified as having a minimum requirement of three or more ballet classes per week and placing a strong emphasis on technique and terminology. A dance uniform, such as a specific color leotard per technique level, is typically required for students of this type of studio. At the highest levels of preprofessional training, auditions are required. Recreational studios were defined as those that offer many forms of dance, with no required minimum number of ballet classes per week. These studios stress having fun as a priority over mastering technique.

Materials

Testing materials included an eating disorder inventory and a body image scale. Participants also answered a demographics survey, which included questions about dance history, perception regarding the ideal ballet body, and family and personal history of eating difficulties.

Eating Disorder Inventory-3. The EDI-3 (Garner, 2004) is a self-report standardized measure that aids in the assessment of various areas of eating pathology. Although there are 12 scales in total, this study focused on the four scales of Drive for Thinness, Body Dissatisfaction, Perfectionism, and Asceticism. There are 91 items on the measure, to which participants use a Likert scale of 0–4 for responding.

As a requirement of the EDI-3, participants' height and weight (collected by self-report of the participants) were used for the computation of the participants' Body Mass Index (BMI). BMI was calculated after the collection of materials, without the participant present.

Kids Eating Disorder Survey. The Body Image Silhouettes subscale of the Kids Eating Disorder Survey (KEDS; Childress, Brewerton, Hodges, & Jarrell, 1993) is used to distinguish perceptions of body image. The subscale presents 8 images of girls in bathing suits in varying shapes and sizes. Each image is labeled from 1 to 8, with higher numbers representing larger body sizes, and the lowest number representing the thinnest, almost skeletal-like image. Instructions asked participants to circle the body image with which they most identified themselves and to underline the body image that they believed to be their ideal body type. An extra requirement, specific to this study, requested participants to place a "B" over the body image that they felt represented the ideal ballet body.

TABLE 1

Frequency Data From the EDI-3 Subscales

EDI-3 Subscales	Common		Significant Proportion		Relatively Rare		Rare	
	Pre-Pro	Rec	Pre-Pro	Rec	Pre-Pro	Rec	Pre-Pro	Rec
Drive for Thinness	90.7%	87.1%			6.2%	12.9%	3.1%	0%
Body Dissatisfaction	90.7%	82.7%	6.2%	17.3%			3.1%	0%
Perfectionism	53.3%	51.9%			28%	30.4%	18.7%	17.2%
Asceticism	84.5%	91.2%			15.5%	8.6%		

Procedure

Administration of all three surveys occurred in one, 30-min session at the participants' studios. Each participant received an envelope containing all testing materials. Each envelope had a number assigned to it, with all subsequent materials marked with the same number. Participants did not write their names anywhere on the testing materials to ensure the anonymity of their responses.

Results

Descriptive Statistics

Eating Disorder Inventory-3. Participant reports indicated that 13% of the recreational dancers and 12.5% of the preprofessional dancers endorsed that they may have an eating disorder and/or are worried about their eating habits. Frequency data were analyzed for four subscales of the EDI-3: Drive for Thinness, Body Dissatisfaction, Perfectionism and Asceticism. Categories for scores ranged from common to rare, with rare scores indicating a disturbance in that specific area (See Table 1). Analysis was specific to these four subscales based on their direct relevance to characteristics of many ballet dancers (McPhee, 2000). Possible score ranges for the four subscales are as follows: Drive for Thinness: 0–28, Body Dissatisfaction: 0–40, Perfectionism: 0–24, and Asceticism: 0–28. Higher scores on these subscales show a stronger indication of what the scale is measuring. Subscale means for the aggregate sample for these scales were drive for thinness $M = 6.76$, ($SD = 6.80$), body dissatisfaction $M = 11.22$, ($SD = 8.24$), perfectionism $M = 10.93$, ($SD = 5.92$) and asceticism $M = 4.69$, ($SD = 3.37$).

Body mass index. Each dancer's BMI was calculated by following the formula: kg/m^2 , or weight divided by the square of height. The difference found between the BMI of recreational dancers ($M = 21.23$, $SD = 2.33$) and the BMI of preprofessional dancers ($M = 20.57$, $SD = 1.91$) was not significant. Between groups, 87% of the recreational studios' participants were in the normal BMI range, with 4.3% of participants in the underweight and 4.3% of participants in the overweight range. In the preprofessional studios, 84.4% of participants were in the normal BMI range, with 15.6% of participants in the underweight and no participants in the overweight range. Overall, 1 out of 55 participants did not know her weight.

Body image silhouettes. In all cases, the discrepancy was in the direction of idealizing a smaller body image and a smaller ballet image than the perceived or the ideal image respectively. In the recreational sample, 56.5% reported a discrepancy between perceived versus ideal body image, compared to the 37.5% of participants from the preprofessional sample. Eighty-

seven percent of recreational students reported a discrepancy between perceived versus the ballet ideal body, as did 87.5% of the preprofessional sample. For the comparison of ideal body image versus the ballet ideal body, 78.3% of recreational dancers and 62.5% of preprofessional dancers reported discrepancies.

Inferential Statistics

All tests were based on an alpha coefficient of .01, an adjustment helpful in decreasing the probability of making a Type I error, common after performing multiple inferential tests. Paired samples t tests showed the differences in body image perception among the aggregate sample. Perceived body image ($M = 4.29$, $SD = .96$) was significantly larger, $t(54) = 4.98$, $p < .01$, than the ideal body image ($M = 3.74$, $SD = .82$). Perceived body image was also significantly larger, $t(54) = 10.35$, $p < .01$, than the ballet ideal ($M = 2.91$, $SD = .73$). A comparison of ideal body image and the ballet ideal demonstrated a significantly larger ideal body image than the ballet ideal, $t(54) = 9.40$, $p < .01$.

Between groups, the perceived body image of recreational dancers ($M = 4.61$, $SD = 1.03$) was significantly larger than the perceived body image of preprofessional dancers ($M = 4.06$, $SD = .84$). No significant differences were found between comparison groups on the ideal body image or the ballet ideal image.

Qualitative Analyses

To further understand the participants' perceptions regarding body image relative to ballet, a number of qualitative questions were asked in the demographics survey. One item asked if the physical image of dancers should be changed. Of preprofessional dancers, 12.5% and of recreational dancers, 21.7% responded, "No, it is attainable for those who want it most." When asked if she were striving to achieve this body type, 31.3% of preprofessional dancers and 30.4% of recreational dancers responded, "Yes." Forty-one percent of preprofessional dancers and 52.2% of recreational dancers stated, "I think about striving to achieve this body type, but never act on these thoughts." However, when asked if they would still strive or think about striving toward the ballet body if they were not ballet dancers, 68.8% of preprofessional dancers and 56.6% of recreational dancers affirmed, "No, I would like to be thin but maintain curves." Specific questions were asked about how the dancers felt about their bodies, in a general sense and in ballet. The findings for the preprofessional sample are presented in Figure 1 and the findings for the recreational sample are presented in Figure 2.

Discussion

This study found no significant differences between the preprofessional and recreational dancers on BMI, ideal body image, ideal ballet body type, or across the four subscales of the EDI-3. However, recreational dancers had a heavier perceived body image than the preprofessional dancers. This is an important finding because there was not a significant difference when comparing the mean BMI scores for both samples. This discrepancy indicates a possible misperception in body image for recreational dancers. However, significant differences were found between perceived body image and ideal body image, perceived body image and the ballet ideal body type, and ideal body image and the ballet ideal body type in the aggregate sample.

The majority of dancers, both preprofessional and recreational, reported a desire to have a smaller body type than they currently have, and reported favoring an even smaller body type for ballet than their specified ideal body type. This finding is noteworthy because both groups endorsed a smaller ballet body ideal than their own nonballet body ideal. I hypothesized that the recreational dancers would not support this concept of having different ideals for their bodies in a general sense and specific to ballet as strongly as the preprofessional dancers. This hypothesis comes from the reality that weight is not commonly, if at all, discussed at recreational studios, thereby reducing dance environment pressures of conforming to the thin ideal. However, the results may indicate that the ballet subculture as a whole plays a larger role than the individual studio environments in promoting the ballet body ideal.

Data across the four EDI-3 subscales indicated an elevation in the eating disorder traits of the dancers. While a more definitive comparison could have been completed using mean data, the small sample size resulted in insufficient statistical power for these analyses.

Moreover, with scales that vary in ranges, it is difficult to compare the means between the two groups in the study. Relative to the normative sample, frequency data from the present study suggested that many of the dancers fell into potentially pathological categories on the Drive for Thinness and Perfectionism subscales.

Based on the responses to the qualitative questions, many dancers appear to have internalized the current ballet image and even to have thoughts about achieving it. In fact, 21.5% of recreational dancers said that the current ballet image should not be changed and is easily attainable, while only 12.5% of preprofessional dancers answered in the same manner. A possible explanation for this finding is that the preprofessional dancers may have experience in actually trying to achieve the ideal ballet body image through path of eating pathology and may have realized that, despite their efforts, not everyone can achieve this body type.

However, those who did support the ideal ballet image made it apparent that their support was confined within the ballet subculture and not in a general sense. The majority of the dancers sampled reported that they would not want this body type if they were not ballet dancers. Recreational dancers appeared less happy with their bodies, both with regard to the ballet subculture and larger society than the preprofessional dancers. Because there were no significant differences between BMI scores for the two groups, however, the attribution for this finding is either misperception of body image or a flaw of the BMI measurement. The collection of height and weight data was by self-report, the results of which could have been skewed by dishonesty or by misperception of their own weight. In addition, BMI calculations do not take into account muscle mass, which can skew the BMIs of the dancers as many tend to be muscular, which in reality increases their weight but not their BMI, or measure of body fat.

FIGURE 1

Feelings about body: Pre-professional sample.

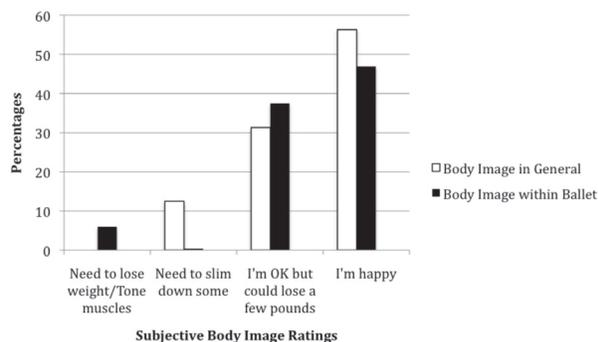
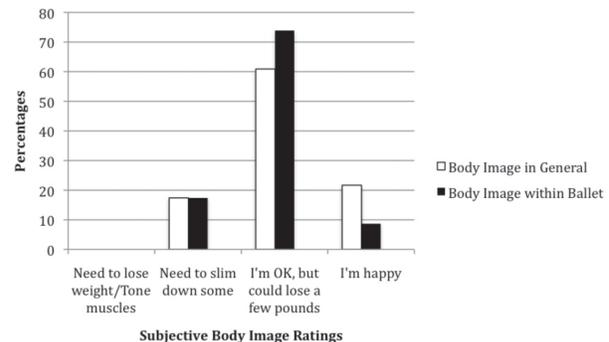


FIGURE 2

Feelings about body: Recreational sample.



Limitations

Although the expected differences between preprofessional and recreational students in this study were not significant, there are some limitations to examine. Operational definitions for each type of studio were important in order to accurately categorize the participating studios as preprofessional or recreational. These definitions included most, but not all requirements of these particular types of studios. Furthermore, finding studios that met these definitions and agreed to participate was also difficult. Gaining permission from studio directors was troublesome; more elite preprofessional studios declined consent for participation in this study than did recreational studios. This may have resulted in skewed data.

Many questions used in the study were perception-oriented. Although these questions were useful, interpreting perceptual data is difficult. Furthermore, the scales in this study were self-report, which increases the chance of participants underreporting signs and symptoms of pathology. Although all participants were guaranteed complete anonymity, many young girls battling with secret eating problems might not trust a study such as this to remain anonymous. Perceptions of dancers likely have a bias, intentional or not. A study of nondancers for comparison would have been extremely helpful.

Using the BMI of the participants was helpful because the other instruments were self-report. Comparing the participants' subjective thoughts to their calculated BMI (as per self-report of height and weight and the experimenter's use of the BMI formula) was useful in exploring whether or not their perceptions were accurate (i.e. a participant feels that she is overweight even though her BMI indicates that she is underweight). Unfortunately, simply using one's height and weight to determine one's BMI leaves room for error, because it does not take into account bone density or muscle weight.

Future Directions

Despite the disadvantages of the present study, the findings could be useful in dance education. This study suggests that the ballet subculture may have a greater influence over all students than type of studio environment. Teaching the history of ballet, ballet aesthetics, and eating disorders and their consequences to all ballet students as a prevention (or in some cases, an intervention) technique may be extremely useful for those students who may only be learning this information through their peers. Young girls who are trying to gain acceptance into the ballet subculture tend to mimic the actions their peers model. Moreover, the source of this peer information may be questionable.

After observing the close similarities in characteristics shared among the pre-professional and recreational dancers, it would be interesting to see if girls with certain personality characteristics enter the art. Most dancers scored high on the scale of perfectionism on the EDI-3 and expressed a sense of competitiveness. A follow-up research question could center on whether ballet training has an influence on these student characteristics, or if students bring these characteristics with them into ballet class.

There are still some unanswered questions, which when answered, could help advance the knowledge of the ballet and body image relationship further. One unidentified factor is what exactly is the difference between preprofessional and recreational studios that affects students' perceptions? The present study suggests that the influences of the two studios are not as different as once thought. Using recreational studio dancers for ballet research is still uncommon, so perhaps more studies will begin to examine this forgotten population of dancers.

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