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**Ballet Teachers: A Source of Perceived Weight Loss Pressure
in Female Ballet Students**

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Thesis

**Submitted to the School of Graduate Studies in partial fulfillment
of the Master of Arts Degree in Human Kinetics**

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Abstract

The main purpose of this study was to examine the role of the ballet teacher as a perceived source of weight loss pressure for the ballet student. Another purpose was to examine whether there could be a positive relationship between the reported use of unhealthy methods of losing weight and the perception of the teacher as a source of weight loss pressure. Finally, we sought to identify the forms of communication used by the teachers that could be construed as weight loss pressures by the students. Forty ballet students participated in the study and completed the BALLET Scale, Eating Behaviors Scale and the Athletic Image Scale. Students were placed into one of two groups based on their answers to the Athletic Image Scale (combined-pressures, no-pressures). The results showed that students did perceive the teacher as a source of weight loss pressure. Further, a positive relationship existed between students who perceived the teacher as a source of weight loss pressure and unhealthy eating behaviors. The results also showed that students in the comined-pressures group perceived more forms of communication by the teacher as weight loss pressures.

Chapter I

Introduction

Introduction

“Bright little bird bones, delicate bird sinews! She was all fire and steel wire. There was not an ounce of spare flesh on her skeleton, and the life force used and used her body until she died of the fever of moving, gasping for breath, much too young...Her trunk was small and stripped of all anatomy but the ciphers of adolescence, her arms and legs relatively long, the neck extraordinarily long and mobile...Without any way being sensual, being, in fact, almost sexless, she suggested all exhilaration, gaiety, and delight”. Agnes de Mille, *Dance to the Piper*, a description of Anna Pavlova, (p.14, Vincent, 1989).

Ballet is a performance art which emphasizes lithe and grace through the lines and movement of the dancer. Such characteristics are typically obtained through serious training, discipline, commitment and through the physique of the dancer. The physique portrayed as an ideal, however, is often an unrealistic one which favors a lean, long body shape (Garner & Garfinkel, 1980; Hamilton, Brooks-Gunn, Warren & Hamilton, 1988; le Grange, Tibbs & Noakes, 1994). To what lengths will dancers go to attain such an ideal?

Researchers have shown that ballet dancers will in fact go to extreme, unhealthy measures to achieve the ideal ballet body. For example, eating disorders and pathogenic weight loss behaviors are prevalent in the world of ballet (Benson, Gillien, Bourdet & Loosli, 1985; Hamilton et al., 1988; Maloney, 1983). Research has also shown that ballet students develop eating disorders or pathogenic weight loss behaviors after their enrollment into the ballet school (Garner & Garfinkel, 1980; Garner, Garfinkel, Rockert & Olmsted, 1987). Such findings suggest that factors in the ballet environment itself may contribute to the onset of eating disorders.

One such factor may be the teacher in the dance environment. Certainly, other studies

have identified the coach as a source of pressure for athletes in lean body sports (Griffin & Harris, 1996; Harris & Greco, 1990; Reel & Gill, 1996; Rosen, McKeag, Hough & Curley, 1986; Sundot-Borgen, 1994). None of these studies, however, have included the population of ballet dancers. This is a noted gap in the literature due to the fact that ballet also emphasizes the lean and light body which is characterized by the sports used in previous studies. Moreover, the role of the teacher is much like that of the coach and therefore, the teacher as a source of pressure warrants more investigation in the world of ballet. Indeed, people in the field have encouraged such examination (Brickell, 1996). Thus, the purpose of this research is to examine the possible role of the ballet teacher as a source of weight loss pressure in ballet students.

Another important point is related to the dancers' own perceptions. Athletes of lean body sports often have misperceptions of their actual weight. They believe that they are overweight when in fact they are not (Dummer, Rosen, Heusner, Roberts & Counsilman, 1987; Harris & Greco, 1990). This is important to consider because those who perceive themselves as overweight are more likely to engage in unhealthy eating behaviors (Harris & Greco, 1990; Rosen et al., 1986). Of more interest to us, is whether one's perceptions of weight or body image also carry over to one's perceptions of the behaviors of those around them, specifically the behaviors of the dance teacher. Griffin and Harris (1996) have suggested that athletes who have a distorted perception of their weight could perceive verbal and nonverbal forms of communication by those around them, no matter how unintentional, as a message for them to lose weight (see also Dummer et al., 1987). In this sense, it becomes important to identify the individual's perceptions concerning body image or weight when investigating issues surrounding pathogenic eating behaviors and pressures related to these behaviors. For this reason, dancers'

perceptions of their body image was included as a factor in this research, as well, their perceptions of the teachers' views of their body image was measured.

Objectives

There were four main objectives of the current study. First, we wanted to investigate whether teachers are perceived by female ballet students as a source of pressure to lose weight or maintain a low body weight. This was done in the context of whether or not the student's perception of body image played a role in their perception of ballet teachers as a source of weight loss pressure. Secondly, determining whether there was a relationship between the amount of perceived weight pressures and weight loss behaviors was also of interest. If the second objective showed a positive relationship, the verbal and nonverbal forms of communication that students identified as weight pressures from their teachers were to be examined. Again, they were examined while taking into consideration the dancers' perceptions related to body image. Finally, of interest was whether or not discrepancies existed between the forms of communication the students said the teachers used, versus the forms of communication the teachers said they used.

Significance of the Study

With the data provided by this study, if the teacher was determined to be a source of pressure, the various verbal and nonverbal forms of communication that could be construed as a pressure by the students would be identified through the self-report questionnaires. By identifying specific forms of communication that were perceived as pressures from the students, teachers can be educated as to their possible role as a source of weight loss pressure. The goal of providing such information would be the possible elimination of the specific behaviors identified by the students from the teachers' repertoire.

Furthermore, if the students' perceptions are shown to be a determining factor, ballet schools could opt to administer the Athletic Image Scale to students as a means to identify those who have misperceptions about weight. If the teacher is aware of a student who has a possible misperception of weight, he/she could exercise caution in his/her teaching behaviors. Teachers would need to be more cautious of the nonverbal and verbal forms of communication determined by the study that could be construed as a pressure to those students who are known to be at risk for developing poor eating habits.

Chapter II

Review of Literature

Review of Literature

The next several sections will examine the evolution of the female ideal throughout history and the origin of the ballet physique. The prevalence of eating disorders and weight loss techniques, including those unique to ballet dancers will also be examined. The various pressures associated with weight loss will be addressed, specifically the role of the coach and the ballet teacher. Finally, the relationship between the perceptions of weight and perceived weight loss pressures will be introduced to provide the reasoning for why we include the dancers' own perceptions of their body image and their perceptions of what they believe their teacher(s) would like their physiques to look like.

The Ideal Body Type:

Western societies definition of the ideal body type for the female is one that is slim. This present day ideal has evolved over time from the more curvaceous and plump body type to the ever increasingly thin body image presented to greater society by the media (Banner, 1983; Brownmiller, 1984; Fallon, 1990; Garner, Garfinkel, Schwartz & Thompson, 1980; Mazur, 1986). Why has present day society gradually rejected the plump figure that was once considered ideal and conversely idolized the slim physique? Two hypotheses explored by Fallon (1990) concerning the evolution of the female body are insightful.

Firstly, Fallon (1990) presented biological determinism and natural selection as a basis for the evolution of the female structure to present day. This hypothesis takes us back about 100,000 years when men were the hunters and women were the gatherers and child bearers. The tasks that were designated uniquely to males and to females were determined by the capabilities of their differing body types and ultimately defined the responsibilities that became characteristic to their sex. The reproductive role of the female made it difficult for her to leave

the camp and assist with hunting (Neilson, 1990). As such, through natural selection the smaller and weaker body structure of the female as compared to the male, further evolved to adapt to the duties and tasks delegated to them. Furthermore, a heavier physique was desirable of both males and females because it provided warmth and sufficient fat stores during times when food was scarce.

A second hypothesis presented by Fallon (1990) suggests that culture is the defining force behind the present day image of the female body. Fallon stated that culture was the determining factor which dictates what is considered to be ideal for women. The practices and rituals that exist around the world and are associated with femininity within a particular culture mold the ideal. For example, in western society, make-up (Markula, 1995), clothing and body shape are characteristics which define femininity (Heinburg & Thompson, 1995; Mazur, 1986).

It is my belief that an interaction between both hypotheses exist and have constructed the ideal female image into what we see and experience today. Biological determinism and natural selection have over time contributed to the physical shape of the modern woman. She has been encouraged to engage in a realm of gender roles specific to her sex and likewise discouraged from engaging in activities associated as male or considered to be within the male domain, such as physical labor and certain sports activities. However, gender role orientation has dramatically modified from the days of hunter-gatherer society to postindustrial society. More and more women are redefining the oppressive definition which has stigmatized them throughout history. Women are breaking through the stereotypes which have hindered and limited them in the past. Nowadays men's work and women's work are not as indistinguishable as they once were at the beginning of time (Kilmartin, 1994).

Characteristics of femininity defined by one's culture have helped to create the present ideal of the female figure. Unfortunately, some of these characteristics seem somewhat unreasonable. For example, the following quote refers to the corset, an uncomfortable undergarment which served the purpose of molding the body to the ideal of the time it was worn. "A woman...is expected to depend on tricks and suffering to prove her feminine nature, for beauty, as men have defined it for women, is an end in itself" (p. 35-36, Brownmiller, 1984). Certainly the essence of the quote applies to present day where western culture has not only placed value upon hair and makeup, but on a thin body shape as well. This thin ideal has become a dangerous characteristic of femininity that is regrettably valued by our society. In truth, it is a characteristic which can have detrimental consequences to those who attempt or succeed in attaining it. Possible consequences are the use of pathogenic weight loss techniques (Mazur, 1986; Stice & Shaw, 1994) and the development of eating disorders (Garner & Garfinkel, 1980; Vandereycken & Hoek, 1992).

What actually triggered the acceptance by Western society to what has become a dangerously thin ideal? History reveals that the ideal physique is malleable and ever-changing, and as surely as the ideal of the present day is thin, the future will redefine the ideal body structure as we know it to be today. A review of the ideal throughout time provides evidence of this. During the Roman Era, thinness was valued up until the late middle ages where a more voluptuous figure was valued and was referred to as the "reproductive figure" (Garner, Garfinkel & Olmstead, 1983). This ideal remained from 1400-1700 where the matronly figure continued to be valued (Fallon, 1990). The 19th century introduced two very extreme ideals which were equally valued during the same time period. The "steel-engraving lady" who was modeled after a ballerina depicted an image which was slim and the other was the "voluptuous woman" which

depicted a plump figure (Banner, 1983). By mid 19th century the voluptuous body figure became the ideal. At that time European art presented this ideal to a population of impressionable females who began to pad their thin bodies to create the illusion of an ideal they valued (Banner, 1983).

The voluptuous ideal survived up until pre W.W.I, when a combination of the steel engraving lady and the voluptuous woman was presented to society and was referred to as “The Gibson Girl.” The Gibson girl retained the curves of the voluptuous woman but was more slender, like the steel-engraving lady (Banner, 1983). Once again the ideal transformed post W.W.I to the flapper image who was devoid of curves and appeared boy like (Caldwell, 1981). The depression signaled the end of the flapper era as bustiness and slim hips returned in the 1930’s in the image of the “Petty girl.” The long legs of the Petty girl not surprisingly directed attention to the leg in the 1940’s. Legs were deemed equally as pleasurable as breasts at that time (Mazur, 1986).

Playboy and Hollywood then presented a busty ideal in the 1950’s (Weyr, 1978). The 1950’s was also a time not unlike the 19th century when thin and large ideals were concurrently represented in the media and on the silver screen. Additionally, an extremely thin model named Twiggy who stood 5’7” and weighed 97 pounds appeared on the scene in the 1960’s. Twiggy, and the body shape she represented became valued by society at that time. The ideal body type of the 1970’s presented a slender figure with small buttocks and small to medium sized breasts. The 1980’s presented a more muscular ideal exhibited through the physique of Jane Fonda. It is important to note, that although the ideal changed to include a more athletic look at that time, the appearance of fat was not, and to this day is not ideal

(Markula, 1995). Finally, the idolization of the slim body type currently exists and can be seen through the physique of Kate Moss and others who exemplify her.

The gradual influence and effect that the skeletal ideal had on women presented in the media is evident through their decreasing physical measurements that have been documented through magazines and pageants. For example, the pageant winner of the 1920's had the measurements of 32-25-35. The measurements of the pageant winner increased in the 1930's to 34-25-35 and again in the 1940's to 35-24-35 (Mazur, 1986). From the 1950's on, however, the waist line measurements declined to 23 or 24 inches with the bust line staying the same (Mazur, 1986). Garner et al.'s, (1980) review of playboy centerfolds and pageant contestants also found a decline in weight over a twenty year period from 1959-1978. American pageant contestants from the years of 1979-1988 also continued to decline in weight (Wiseman, 1992). These everchanging ideals signal that the ideal body type is largely a social construction.

The evidence presented has shown that the ideal body image has changed throughout history and has stabilized over the last few decades into one that is extremely thin. Perhaps the recent surge of lean, muscular women as seen in Nike commercials and exhibited through the media's presentation of the US Women's soccer team will positively redefine the slim ideal to one that is healthier.

What impact does this thin ideal body have on the behaviors and beliefs of women in the general population? Evidence has shown that females can be negatively affected by the ideal with which they are continuously presented with (Monteath & McCabe, 1997; Posavac, Posavac & Posavac, 1988; Stice & Shaw, 1994). For example, many women report body dissatisfaction, some resort to unhealthy eating behaviors to achieve the ideal (Mazur, 1986; Taub & Blinde, 1992), and others resort to general unhealthy behaviors such as smoking (Vincent, 1989).

Societies expectation of the slim ideal has even been identified as a precursor to eating disorders (Garner & Garfinkel, 1980; Vandereycken & Hoek, 1992).

Perhaps the most disturbing message that women receive from the media and subsequently society, is that slimness is linked to their femininity (Cash & Henry, 1995). A particular subgroup of society who are reputed to exemplify femininity are ballet dancers. More importantly, the demands placed on the ballet dancer to achieve the slim physique may intensify the negative consequences previously stated of the general female population (Calabrese, Kirdendall, Floyd, Rapoport, Williams, Garron, Weiker & Bergfeld, 1983; Garner & Garfinkel, 1980). These ideas will be expanded upon in the following section.

The Origin of the Ballet Physique

The origin of the slight physique of the classical ballet dancer debuted during the romantic era in the mid 1800's. At that time, ballet dancers commonly portrayed elves and fairies. Teachers and choreographers encouraged dancers to emulate the sylph-like supernatural beings they portrayed on stage. Sylph being defined as "an imaginary being inhabiting the air; a slender graceful woman" (p. 521, Merriam-Webster, 1991). They were to do this not only by the choreographed movements they danced, but also through their physique (Vincent, 1989).

The founder and former artistic director of the New York City Ballet, George Balanchine, not only demanded the sylph-like appearance of his dancers, he demanded a skeletal one as well. Balanchine was infamous for the emaciated appearance of his dancers (Brickell, 1996). Balanchine's reign of the New York City Ballet in the 1950's produced dancers who represented his skeletal ideal. This well known and respected ballet company became known for its aesthetic requirement of the lean, slim body, which was not left unnoticed by the rest of the

ballet world. In time, the ballet world adopted similar physique requirements as those of Balanchine and the New York City Ballet.

Clarkson, Feedson, Keller and Carney (1989) supported the concept that a requirement for a sylph-like body existed for female ballet dancers. The study examined the measurements of both ballet students and professional ballet dancers. It was noted that small upper arms were characteristic of both the students and the professional dancers. Dolgener, Spasoff and St. John (1980) also reported that although ballet dancers had larger calves and ankles, they also had smaller biceps, thighs and hips than non dancers. These observations suggest that the ideally small, lean and strong frame favored for the ballet dancer is exhibited through the actual physique of the dancers.

To what extent will young ballet dancers go to achieve the ideal ballet body as previously defined by the Romantic period and the great Balanchine? The achievement of such an ideal does not come without cost, a cost which can sacrifice the overall health and well being of the dancer who attempts to achieve it. It is not surprising to note that the demands for a lean and light physique have been linked to a prevalence of pathogenic weight loss behaviors which lead to the development of eating disorders in ballet dancers. The relationship between the required physique of the dancer and the onset of eating disorders will be expanded upon in the next section.

Prevalence of Eating Disorders in Ballet Dancers

For most, the ideal lean body does not occur naturally. In a survey of ballet dancers, Maloney (1983) discovered that all dancers in their study were conscious of their weight. In order to obtain the ideal, some resorted to abusive measures to stay or become slim. Maloney stated, for example, that ballet dancers were seven times more likely to develop an eating

disorder than high school students. This is supported in the literature, as dancers have been defined as a group at risk for developing an eating disorder (Benson et al., 1985; Calabrese et al., 1983; Garner & Garfinkel, 1980; Hamilton et al., 1988; le Grange et al., 1994).

In terms of actual statistics for dancers, a number of studies highlight the significance of the issue of eating disordered tendencies. One third of the ballet dancers in a study by Brooks-Gunn, Warren and Hamilton (1987) reported having eating problems with 17% of those reported to be that of anorexia nervosa, 21% bulimia nervosa, and 33% anorexia and/or bulimia. Hamilton et al. (1988) also found an alarming rate of eating disorders in ballet dancers. Of the dancers in that study, 46% reported having anorexia nervosa or bulimia. Further, le Grange et al. (1994) studied a group of female ballet dancers who received a general form of training. In that population, 4.1% of students in the study were clinically diagnosed with anorexia nervosa. The study also noted that 8.2% of the students whose symptoms did not meet the demands for the diagnosis of an eating disorder, showed partial syndromes, and 85% of students showed symptoms associated with eating disorders.

The existence of partial symptoms of eating disorders in ballet dancers was also noted by Garner et al. (1987). From a sample of ballet students, 14% showed partial syndromes of an eating disorder. Some ballet dancers and students show only partial signs of eating disorders, without fitting the criteria for the clinical diagnosis of an eating disorder. The reason for this could be that ballet companies often have a minimum weight requirement. If the dancer exceeds the minimum weight, a number of consequences could ensue, for example, she may not be permitted to dance in a performance, nor participate in ballet classes or rehearsals. The director of the ballet school may even ask her to leave and seek the proper help and rehabilitation (le Grange et al., 1994). Thus, ballet dancers, being aware of these possible consequences, may

attain their lean physique by using pathogenic weight loss techniques, but at a level that only reveals partial symptoms of an eating disorder.

Another point of interest, connected to this idea of the consequences that dancers face, is the method in which the pathogenic weight loss behaviors of dancers has been investigated in previous studies. Evidence of this sort has typically been sought through self report measures. A concern, however, is that even though a dancer may be told that her answers on a questionnaire will remain anonymous, she may still feel at risk for detection of her possible condition (Thompson & Sherman, 1993). Sundgot-Borgen (1993) pointed to the fact that, due to the sensitive nature of the topic being studied, athletes who have eating disorders or show tendencies for developing disorders may not be truthful in their answers. The elusive or untruthful responses of athletes may especially hold true for young ballet students who depend upon their continued training to realize any hope or dream of becoming a professional ballet dancer. In considering this, the percentages of previously reported dancers with disordered eating patterns may in fact be a low estimate. It is also acknowledged here that only self report measures are being used in this study, and given the stated information, it is identified as a limitation. If inaccuracies do exist, it is argued that they will be on the side of under reporting, rather than over reporting the presence of pathogenic weight control behaviors.

While the dancer may be aware of the possible consequences that arise from being discovered to suffer from an eating disorder, she is also likely to be very aware of the fact that she must obtain or maintain the ideal ballet physique in order to be accepted into a ballet company. Due to this emphasis on the ideal ballet body for the student, ballet dancers very often resort to pathogenic weight loss behaviors. Some of these behaviors are described in the next section.

Weight Loss Techniques Used By Ballet Dancers

The importance of the lean body has manifested itself in the eating behaviors of ballet students in their quest to obtain the ideal ballet body. In this section, research which has explored the techniques used by dancers to lose weight or maintain weight will be reviewed. As well, other weight loss techniques are presented. Finally, information about the development of a self-report measure used in this study is provided.

Benson et al. (1985) found that students frequently engaged in pathogenic weight loss behaviors. The students abused laxatives, fasted and also engaged in fad diets. Calabrese and Kirkendall (1983) also reported that dancers engaged in low calorie diets which lacked in nutrients in order to maintain or attain the ideal body. It was also noted, to the dancers' benefit, that they often took supplements to replace the nutrients they failed to receive in their diets. Unfortunately though, the proper types were not consumed, nor the proper amounts. Other techniques used by dancers have also been reported, such as vomiting and diuretic abuse (Hamilton et al., 1988; le Grange, 1994).

A case study by Maloney (1983) of a dancer who was described as a beautiful ballerina on stage is also illustrative of different weight loss techniques. This beautiful ballerina who appeared so deceptively perfect was also bulimic. The abuse she put her body through to achieve the beautiful ideal included laxative use and frequent vomiting. In addition, other weight loss techniques that she used included excessive exercise and wearing layer upon layer of garments during practices to encourage water loss through sweating.

Some of the techniques described above have been included in the questionnaires typically used to study eating disorders with dancers, such as the Eating Disorder Inventory (Garner, Olmsted & Polivy, 1983) and the Eating Attitudes Test (Garner, Olmsted, Bohr &

Garfinkel, 1982). Given my own experience in the field of ballet, however, weight loss techniques commonly mentioned on those scales failed to include techniques that may be unique to ballet dancers. Such techniques include drinking coffee, smoking, and replacing meals with chocolate bars or candy. The use of these techniques in the ballet world have been documented somewhat. For example, Vincent (1989), following interviews with various dancers, reported that when a ballet student was asked about what kind of liquids she commonly consumed, she responded "...coffee, tea, diet soda, and lots of water." The interviewer responded: "[Specifying needlessly] Coffee with Sweet 'N Low." The dancer replied, "oh, yeah" (p. 31, Vincent, 1989). That particular dancer admitted to solely consuming liquids on the weekends, only introducing proteins to her diet during the week, as she needed the energy to dance. Gelsey Kirkland (1988), a former dancer with the New York City ballet, in her autobiography, also revealed similar bizarre weight loss techniques. Kirkland stated that, "I began to starve myself, limiting my diet to candy bars and coffee. This was the first sign of an anorexic syndrome that would later become an obsessive rule in my life" (p. 90).

Given this information, I contacted ballet dancers and requested that they share their own experience concerning the common weight loss or weight maintenance techniques used in ballet. This information gathered through inquiries with other ballet dancers, my own knowledge, as well as the readings on the techniques used by ballet dancers, were all combined to generate the Eating Behaviors Scale that will be used in this study. Furthermore, it is important to note that the purpose of this study is not to diagnose dancers with eating disorders, which the other scales attempt to do. Rather, we want to examine the specific weight loss techniques that ballet dancers use to determine whether the practice of these techniques are related to the pressures perceived from the teacher.

In summary, ballet dancers have been reported to engage in a number of pathogenic behaviors to lose weight, such as vomiting, laxative abuse, fad diets, the dawning of apparel which promotes sweating, and the use of liquids and foods that lack in nutritional value in place of normal meals. The practice of these eating behaviors have resulted in a high prevalence of eating disorders in dance. What is the nature of this relationship between dance and eating disorders? Why do so many dancers have eating disorders? Thompson and Sherman (1993) have proposed three hypothesis related to this topic. All three are described in the next section, but one is deemed more appropriate for the setting of ballet. The rationale for this will be presented and that hypothesis will be used as a framework for the remainder of this proposal.

Thompson and Sherman's Hypotheses

One hypothesis put forth by Thompson and Sherman (1993) is the "sport attraction" hypothesis. Under this hypothesis, "aspects of sport or of specific sports attract individuals who are either eating disordered or who are at risk for the development of an eating disorder" (p. 25). An example of this could be that of a person who is attracted to the sport of running due to the fact that runners are typically lean and of a light physique (Rosen et al., 1986). The person could participate in running and not be challenged about her low weight, because runners "accept" an extremely thin physique.

In the world of ballet, however, those who are serious about ballet would be expected to begin their training as early as possible. Dancers typically begin their training at around the age of six or seven, while others have been known to start as early as three years old (Calabrese et al., 1983; Hamilton et al., 1988). It is unlikely that a child of such a young age is conscious of their weight and specifically entered into the world of ballet because a slim physique is valued.

Therefore, due to the young age at which dancers begin training, it is very unlikely that the “sport attraction” hypothesis would hold true for ballet.

Thompson and Sherman (1993) also suggested a “direct causal” hypothesis, with it being stated that “Participation in sport or in specific sports causes eating disorders” (p. 25). Given this causal relationship, the assumption would be that if you train in ballet, you could develop an eating disorder. The development of an eating disorder is multidimensional and sport participation, however, is likely just one of many possible factors that could contribute to the development of eating disorders. For this reason, the hypothesis is rejected as well as it does not consider other factors that may exist beyond the sport. At the same time though, it is acknowledged that the participation in ballet exposes an individual to the ballet environment which defines the ideal physique as one that is slight and slim. Such an environment may pressure the dancers to achieve the defined ideal. But this environment may not be the sole contributor, which leads us to the third hypothesis provided by Thompson and Sherman.

In this last hypothesis, Thompson and Sherman (1993) advanced the idea that “Sport or participation in some sports does not cause the disorder but precipitates its development in athletes who are predisposed to have a disorder” (p. 25). It is this last presented hypothesis to which we see ballet dancers best fitting and this will be referred to as the “predisposition hypothesis.” Under this hypothesis the environment of the individual is an important factor to be considered. Similar to the causal hypothesis, the qualities of the ideal physique in ballet is also important. The pressures that dancers face from influential others concerning the lean physique would be introduced as important factors in the development of pathogenic weight loss behaviors. In this way, the ballet environment precipitates the development of the disorder, but pathogenic weight loss behaviors emerge only in those dancers that have other predisposing

attributes. While these may be a large number of various attributes, the one that will be of interest is the dancer's own perceptions of her weight and body, as well as her perception of her teacher as a weight loss pressure. In the next sections, these two factors, the ballet environment as a precipitating agent and the dancers' perceptions as a predisposing attribute are further developed.

Perceived Weight Pressures in Ballet Students

Garner et al. (1987) supported the belief that the existence of eating disorders developed as a function of being in the ballet school environment. Further, Garner and Garfinkel (1980) found that in serious ballet programs, anorexia nervosa developed after the students enrolled in the dance school. They also stated that a potential source for the development of eating disorders were the pressures existing in the school itself which were directed towards the dancers achieving the ideal body. That study, however, did not identify the specific weight pressures that may exist in the school environment, and thus, little is known at this level. One could argue that many in the ballet environment are a source of pressure such as choreographers, directors, parents, the male partner and peers. Returning to the Romantic Era where the sylph-like image first appeared as the ideal, for example, it was the choreographers and directors who encouraged their dancers to obtain the physique of the supernatural beings they portrayed. The artistic director of a ballet studio or ballet company is one who is involved in defining the physique that is optimum for its dancers. The director, for example, has been said to set a contract weight for the dancers based on the distorted perception of what the ideal should be (Calabrese & Kirdendall, 1983). The commonality that exists among directors' definitions of the aesthetic ideal is one to which the world of ballet has become accustomed.

The directors and choreographers are not considered to be the only source of pressure for ballet students, pressures could also come from the parents, who may desire to see their daughter as the “prima ballerina.” Perhaps the male partner could influence the dancer as well by suggesting that she is too heavy to lift. As well, peers in the dance community could be another source of pressure. While these are potential sources of pressure, the population of interest here is that of the dance teacher.

External pressures to lose weight are a concept that has been identified in other lean body sports where sources of weight pressures for the athletes also exist (Harris & Greco, 1990; Reel & Gill, 1996; Sundot-Borgen, 1994; Taylor & Ste-Marie, in press). Although limited, research has identified the most significant weight loss pressure for athletes in lean body sports to be that of the coach (Taylor, 1998). Along these lines, the role of the teacher is viewed as being similar to that of the coach. The ballet teacher monitors and guides the ballet student through her progression of training as does a coach with his/her athlete. In this light, the investigation of the teacher as a weight loss pressure is crucial. Moreover, there are no studies to date that examine the teacher nor the environmental weight loss pressures in young ballet students.

Reel (1998), however, has examined weight loss pressures among college female dancers. Reel developed the Weight Pressures in Dance questionnaire (WPD) to examine pressures existing in dance. She reported that the dance costume, performance advantages related to a lower weight, the perception that the thinnest dancers received the best performance roles, social comparisons of the dancer’s body to other dancers, and the presence of the mirror were identified as pressures. There were no questions, however, that examined the role of the ballet teacher as a potential source of pressure. This is a noted gap in this field of study because, as mentioned, the coach in other studies of lean body sports has been identified as having a very

influential role. Others in the dance world have also encouraged research into the role of the teacher and the onset of pathogenic weight loss behaviors (Brickell, 1996; Calabrese et al., 1983). Further elaboration on how the coach has been seen as a source of weight loss pressure is provided in the next section.

The Coach as a Source of Weight Pressure

One of the first studies that more directly focused on weight loss pressures was that of Reel and Gill (1996). In the study, high school cheerleaders and college cheerleaders completed a self-report inventory referred to as the CHEER questionnaire. This scale consisted of comments linked to weight loss pressures that were considered unique to cheer leading. Results from that study showed that 46% of the high school cheerleaders and 69.8% of the college cheerleaders thought that weight was important to their coach. This study is relevant because, similar to ballet, cheerleading is also known for its emphasis on the lean body. Similarly, Taylor's (1998) research revealed that dance and pair figure skaters feel pressure to lose weight. In that study, various possible sources of pressures were examined including the coach, partner, parent(s), judges and the skater herself. The greatest source of weight pressure for the figure skaters came from themselves and the coach.

Although not specifically examining "pressure" issues, studies have shown that the coach could be influential in the triggering of eating disorders. Sundgot-Borgen (1994), for example, studied a group of female athletes. Athletes in aesthetic sports such as diving, figure skating, gymnastics, rhythmic gymnastics and sports dance reported that the coach recommended that they lose weight. Similarly, Harris and Grecco (1990) found that 56% of the gymnasts in their study were told by their coach to lose weight. Finally, Rosen and Hough (1988) reported that

two thirds of the gymnasts in their study were told by their coaches that they were too heavy. Of these gymnasts, 75% resorted to pathogenic weight loss behaviors to reduce their weight.

Similar to ballet, the sport of gymnastics places considerable emphasis on the ideal physique. As noted, a high percentage of gymnasts reported their coaches were concerned with weight. In such situations, athletes often desire to please their coaches and can go to great lengths to do so. A case study by Krane, Greenleaf and Snow (1997) of a former elite gymnast emphasizes this point. The gymnast expressed to the interviewers that her coaches carefully monitored the food she ate. Further, the gymnast stated that in order to maintain the physique expected of her, she resorted to pathogenic weight loss behaviors. For example, she would fill herself with warm water to expand her stomach and she would also cut her food into small pieces to make it appear to those around her that she was eating a normal portion of food.

Similar reports of demands to lose weight have been made with respect to dance. Vincent (1989) quoted a dance teacher as saying “But if your structure is short and thick-muscular then it has to be *down to the bone*, and if you can get it down to the bone without being ill, fine. If you can’t, then you’ve got to get out of it [dancing]” (p. 27). The consequence of this comment could result in the dancer trying to get down to the bone rather than quitting.

Vincent reports anecdotal information, however, and with such limited research in this area, the role of the dance teacher as a weight loss pressure necessitates investigation.

Upon what do coaches base the decision that an athlete should lose weight? Griffin and Harris (1996) had 274 coaches complete a questionnaire containing questions related to weight loss issues. In this study, 29% of the coaches indicated that they knew if an athlete needed to lose weight based on their appearance alone and another 24% based such a decision on the athlete’s performance alone. Fortunately though, coaches did not directly encourage the use of

pathogenic methods of losing weight to athletes. Griffin and Harris did comment, however, that coaches could still have an indirect influence on the athletes with respect to weight loss pressures. While the study by Griffin and Harris (1996) provided new information concerning coaches, it failed to include coaches who were involved in lean body sports. The present study will attempt to fill this gap by investigating the role of the ballet teacher as a source of weight loss pressure.

Behaviors Perceived as Weight Loss Pressures

In many of the previous examples concerning how a coach or dance teacher could pressure an athlete to lose weight, the message was very direct, for example, athletes were outright told to lose weight. Are there other behaviors that a coach might do to influence the athlete to lose weight? Would the coach even realize that he/she did these behaviors and that they were perceived as pressures to lose weight? One of the purposes of this study is to identify such behaviors in the context of ballet. A questionnaire was developed for this purpose. As an overview, both verbal and nonverbal behaviors that a ballet teacher may have in her teaching “repertoire” were generated and included on the questionnaire. Items linked to the verbal form of communication involved the teacher actually being heard making a comment. An example could be the teacher approving of a student’s weight loss. Nonverbal forms of communication are more broadly based and could include body language, touching or other forms of communication intended to correct the body placement of the dancer. An example would be when a teacher pokes an area of the student’s body they feel needs to be lifted or strengthened. Several neutral items have been included on the questionnaire as well, which do not pertain to a form of communication that could be perceived as a weight loss pressure. Their inclusion is to assure that the student would not identify these items as pressures, therefore ensuring that the

nonverbal and verbal items are appropriate. Again, all these items were generated on the basis of my own experience in the field as well as from input acquired from various dancers. The WPD questionnaire (Reel, 1998) and the CHEER questionnaire (Reel & Gill, 1996) were also reviewed and appropriate information was included or modified for the purpose of this study.

The Ballet Dancer's Perceptions

In the previous sections, eating disorders, weight loss pressures and weight loss techniques have been discussed with respect to the ballet dancer. As well, evidence revealing that the coach could be a significant contributor towards these pressures was presented. An argument was also put forth that the dance teacher, having a similar role to that of a coach, may also be a source of weight loss pressure. Finally, findings of athletes in lean body sports reported that their coach told them they were too heavy or needed to lose weight were presented. These examples present a seemingly simple causal relationship of the coach telling the athlete to lose weight and the athlete developing eating problems. Within the predisposition hypothesis, however, this is not expected to be the only factor involved. Rather, other predisposing factors on the part of the dancer would be introduced. The one we have chosen to develop further is that of the dancer's own perceptions of her weight and what she thinks her teacher would like her to look like.

le Grange et al. (1994) found that 50% of the ballet students they studied perceived themselves to be overweight. This perception of being overweight is important because it has been found that it is the athletes' perception of weight rather than their actual weight which determines their desire to lose or gain weight (Davis, 1992). Dummer et al. (1987) also noted that athletes can misperceive their weight. In their sample of competitive swimmers, misperceptions were present, whereby those who considered themselves as average weight were

actually underweight. Similarly, those who believed themselves to be overweight in actuality were of an average weight. Rosen et al. (1986) also suggested that the athlete's perception of weight played a role in the practice of unhealthy weight control behaviors. They reported that female athletes practicing weight control techniques were likely to have perceived themselves as overweight at some point in their lives.

Where does the athletes' body perceptions come from? Dummer et al. (1987) found that swimmers' perceptions of weight were influenced by the signals they received from those around them. Similarly, Lutter and Jaffee (1996) suggested that females often base their own ideal by what they perceive other people think is attractive or ideal. They also stated that misperceptions of one's body develops at an early age. Therefore, coaches or ballet teachers are in a very influential position where young athletes are concerned. This is why it is important to gain an understanding of the various forms of communication that may be construed by the athlete as a message to lose weight.

Fallon and Rozin (1985) also concluded that one's perception of weight determines the intensity of pressure they place on his/herself to lose weight. The perception of a ballet student's weight may influence the intensity with which she perceives a pressure, as well as the lengths to which she will go to make those influential people in her environment satisfied, such as the ballet teacher. No study to date has attempted to examine the relationship between the variables of an athlete's perception concerning weight and how that may influence the intensity with which the athlete perceives a given behavior as a weight loss pressure. This study will examine the ballet students' perception of weight through the Athletic Image Scale and how dancers of varying body image perceptions perceive weight loss pressures from their dance teacher.

Through the Athletic Image Scale, the ballet students will be classified into four groups. Group one will include students who express their current body image as their desired body image, and also perceive their teachers to approve of their current body image. This group will be referred to as the no-pressures group. The second group will include students who's current body image is larger than their desired body image, but at the same time perceive that their teachers approve of their current body image. This group will be referred to as the self-pressure group. The third group will include students who perceive their current body image as their desired body image, however, they perceive that their teachers' desired body image of them is smaller than their current body image. This group will be referred to as the teacher-pressure group. The final group will include students who's current body image is larger than their desired body image and perceive their teachers' desired body image as smaller than their current body image. This group will be referred to as the combined-pressures group.

These four groups will be used throughout the study to determine whether this variable influences the many other issues raised. For example, it has been said that students may be influenced by signals from those around them to lose weight (Dummer et al., 1987; Griffin & Harris, 1996). Does the dancer's perception of weight influence the forms of communication that she perceives to be a weight loss pressure? Having the dance students classified into these four groups (no-pressure, self-pressure, teacher-pressure and combined-pressures) will allow us to study this.

A final point of mention concerns a comparison of the students' and the teachers' perceptions regarding the behaviors that the teachers engaged in. The BALLET Scale has been developed for the teachers as well, in which the format is an exact replicate of the questionnaire the students will complete. The questions are modified accordingly, however, to inquire from

the perspective of the teacher whether the forms of communication listed are used by her. They will also have the opportunity to specify whether or not they think the forms of communication included on the questionnaire could be construed as a weight loss pressure to the students. This will create a dynamic to investigate any discrepancies which may arise between the students' perceptions on the issue versus the teachers' perceptions. To our knowledge, this approach of acquiring both opinions of the students and the teachers at the same time has not been done. Research that inspects only one side of an issue fails to present the views of the other side which could offer some enlightenment to the topic of interest. Therefore, it is important to examine both parties to gain a better understanding of the phenomenon under investigation.

In summary, based on the review of literature and the noted gaps, the current study intends to address the role of the teacher as a weight loss pressure. The specific forms of communication that students perceive as weight loss pressures from their teachers will also be examined. These two issues will be studied while taking into consideration the dancers' own perceptions of weight and their own body image. Finally, we are interested in any discrepancies that might exist between the perception of the teachers and the forms of communication that they believe they use when teaching ballet students, versus the students' perceptions of the forms of communication the teachers use and whether or not they perceive those behaviors as weight loss pressures.

Chapter III

Presentation of the Article

Presentation of the Article

The following article titled: “Ballet Teachers: A Source of Perceived Weight Loss Pressure in Female Ballet Students” will be submitted to a highly reputable journal within the field of Sport Psychology entitled The Sport Psychologist.

Running head: WEIGHT LOSS PRESSURES

Ballet Teachers: A Source of Perceived Weight Loss Pressure
in Female Ballet Students

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Abstract

Forty female ballet students involved in serious training with a mean age of 17.5 from Canada and the United States participated in the current study of the ballet teacher as a possible source of perceived weight loss pressure. Students moderately agreed with a statement that read, “ballet teachers are a source of weight loss pressure.” Further, correlational analysis revealed a positive relationship between unhealthy eating behaviors engaged in by the students and the perception of the teacher as a source of weight loss pressure ($r = .49, p = .01$). Respondents also completed the Athletic Image Scale which served to investigate the perceptions of the students on their desired body image and the image they perceived their teachers wanted them to be. Two main groups emerged from this process. One group desired to be of a lesser weight and perceived that their teachers wanted them to be of a lesser weight as well (combined-pressures group). The second group consisted of students who were content with their current weight and believed their teachers’ were content with their current weight as well (no-pressures group). Mann-Whitney U analyses showed the combined-pressures group perceived more verbal ($u=66.5, p=.01$) and nonverbal ($u=85.0, p=.02$) behaviors on the part of the teacher as weight loss pressures than those students who were in the no-pressures group.

Research has indicated that western society is particularly obsessed with a slim body type that has been deemed ideal and linked to femininity (Taub & Blinde, 1992; Garner & Garfinkel, 1980; Posavac, Posavac & Posavac, 1998). Western societies' definition of the ideal body type for the female was not always one that is slim as it is today. The ideal body image of present day has evolved over time from the more curvaceous and plump body type to the ever increasingly thin ideal image presented through the media (Fallon, 1990; Mazur, 1986; Monteath & McCabe, 1997; Myers & Biocca, 1992; Wiseman, Gray, Mosimann & Ahrens, 1992). It is disturbing to note that the general population of females are often adversely influenced by the image of idealism that media portrayed women have come to define.

While contributions from society exist for all women to engage in pathogenic weight loss techniques, other unique factors may also exist for women who participate in aesthetic sport activities. Women who participate in lean body sports where aesthetics are valued, such as gymnastics and figure skating, have been reported to resort to pathogenic weight loss techniques (Rosen & Hough, 1988; Brooks-Gunn, Warren & Hamilton, 1987; Smith, 1996) or to develop more symptoms of eating disorders (Garner & Garfinkel, 1980; le Grange, Tibbs & Noakes, 1994; Sundgot-Borgen, 1994) than the general population. The population of interest to this study of weight loss pressures is that of female ballet dancers, who are reputed to exemplify femininity and to whom a slim physique is intensely valued.

Ballet is a performance art which emphasizes the importance of lithe and grace through the lines and movement of the long and lean body. Historically, the ballet community has commanded its dancers to emulate sylph-like supernatural beings such as elves and fairies (Benson, Gillien, Bourdet & Loosli, 1985; Vincent, 1989). Such sylph-like characteristics which are valued in the dancer's body are typically obtained through serious training, discipline,

commitment and also through the physique of the dancer. In terms of the last characteristic, the ideal physique favors a thin, long body shape, an ideal that can often be unrealistic to attain (Hamilton, Brooks-Gunn, Warren & Hamilton, 1988; Hergenroeder, Fiorotto & Klish, 1990; Garner & Garfinkel, 1980; le Grange, et al., 1994).

In fact, researchers have shown that dancers will resort to extreme, unhealthy measures to achieve the “ideal” ballet body. For example, pathogenic weight loss techniques and symptoms of eating disorders are regnant in the world of ballet (Benson et al., 1985; Garner & Garfinkel, 1980; Garner, Garfinkel, Rockert & Olmstead, 1987; le Grange et al., 1994). Maloney (1983) found that ballet dancers were seven times more likely to develop anorexia nervosa than non dancers. Also of importance is that while a number of studies have identified ballet dancers as a population at risk for developing eating disorders (Calabrese & Kirkendall, 1983; Maloney, 1983; Garner et al., 1987), little information has been obtained concerning the actual weight loss techniques used by these dancers. Rather, the majority of research done with dancers has focused on the classifying dancers’ disorders.

Scales such as the EDI and EAT, for example, were developed for the purpose of identifying those who may be at risk for anorexia nervosa or bulimia nervosa. These scales provide information mostly about the dancers’ attitudes rather than specific methods of losing or maintaining weight that the respondent could identify. Although the EAT scale includes some techniques to lose or control weight, these techniques are limited in number. The specific forms of weight loss techniques used by dancers are therefore important to identify. Moreover, other studies that have investigated weight loss techniques tend to concentrate only on unhealthy generalized techniques.

Thus, an Eating Behavior Scale was developed by the researchers to gain a better understanding of the specific weight loss techniques that may be employed by ballet dancers. This scale included both healthy and unhealthy techniques of losing weight as well as other behaviors that are often seen in the ballet world as weight loss techniques but not included in other research (e.g. smoking).

Researchers have also reported that ballet students develop pathogenic weight loss techniques or eating disorders after their enrollment into ballet school (Garner & Garfinkel, 1980; Garner et al., 1987). These findings suggest that circumstances in the ballet environment itself may contribute to pathogenic weight loss behaviors and the onset of eating disorders. For this reason, we decided to examine a potential source of weight loss pressure within the ballet environment. While a number of sources may exist, such as other ballet students, parents, or the dance partner, the potential source of focus in this study was the ballet teacher. Indeed, the examination of the teacher as a source of weight loss pressure has been encouraged by other researchers (Brickell, 1996). As well, the role of the teacher is similar to that of the coach and as described in the next section, coaches of lean body sports have been suggested as a trigger factor for unhealthy eating behaviors. Therefore, the teacher as a source of pressure warrants more investigation in the world of ballet.

Studies have identified the coach as a potential source of pressure for athletes in lean body sports such as gymnastics (Harris & Greco, 1990; Krane, Greenleaf & Snow, 1997; Rosen & Hough, 1988; Sundot-Borgen, 1994). Sundgot-Borgen (1994), for example, studied a group of female athletes in aesthetic sports such as diving, figure skating, gymnastics, rhythmic gymnastics and sports dance, who reported that the coach recommended that they lose weight. Similarly, Harris and Grecco (1990) found that 56% of the gymnasts in their study were told by

their coach to lose weight. Finally, Rosen and Hough (1988) reported that two thirds of the gymnasts in their study were told by their coaches they were too heavy. Of these gymnasts, 75% resorted to pathogenic weight loss behaviors to reduce their weight. Therefore, another purpose of this research was to examine the possible role of the ballet teacher as a source of weight loss pressure for ballet students. As well, the relationship between weight loss behaviors used and ballet students' perceptions of the teacher as a weight loss pressure was examined. Our hypothesis was that ballet students would perceive the teacher as a source of pressure and that this would be positively related to their involvement with weight loss techniques.

Given our hypothesis that teachers would be a source of pressure, we also deemed it necessary to identify the precise forms of communication used by the teachers that could be perceived as weight loss pressures by the ballet students. Therefore, a BALLET scale was developed that included verbal and nonverbal behaviors that ballet teachers may utilize while interacting with their students. The students identified whether the particular behaviors by the teacher were perceived as a pressure for them to lose weight. An important point to consider when investigating perceptions, however, is that the unique perspective of the individual can shape her perception of what is going on around her. This perspective can be influenced by a multitude of factors. One such factor, is her own perceptions about her body image or weight (Dummer, Rosen, Heusner, Roberts & Counsilman, 1987).

Athletes of lean body sports often do have misperceptions of their actual weight. Dummer et al. (1987), for example, reported that athletes perceive themselves to be overweight when in fact they are not (see also, Gray, 1977; Harris & Greco, 1990; Myers & Biocca, 1992). This is important to consider because those who perceive themselves as overweight may interpret behaviors of others as directly telling them to lose weight (Dummer et al., 1987; Harris

& Greco, 1990). In this sense, it becomes important to identify the individual's perceptions concerning her body image or weight. Hence, dancers' perceptions of their body image as well as their perceptions of their teachers' view of their body image were measured through the Athletic Image Scale (Lenart, Goldberg, Bailey, Dallal & Koff, 1995).

The information from these measures were then used to classify students into one of four groups. Group one included students who expressed their current body image as their desired body image, and perceived their teachers to approve of their current body image (no-pressures group). The second group included students who's current body image is larger than their desired body image and perceived their teachers to approve of their current body image (self-pressure group). The third group included students who perceived their current body image as their desired body image and perceive their teachers' desired body image as smaller than their current body image (teacher-pressure group). Finally, the fourth group included students who's current body image was larger than their desired body image and perceived their teachers' desired body image as smaller than their current body image (combined-pressures group). Our hypothesis with regard to this issue was that students who fit in the combined-pressures group description would be more likely to perceive forms of communication from the teacher as weight loss pressures than those in the no-pressures group. No predictions were made for the self-pressure group or the teacher-pressure group, because there wasn't enough previous research to guide us in this respect.

In summary, we inquired as to whether or not ballet students perceive their ballet teachers to be a source of weight loss pressure. We also were curious to discover if there was a relationship between the amount of perceived weight loss pressure and weight loss behaviors engaged in by the dancers. In addition, identifying the specific weight loss behaviors used by

ballet dancers, if any, was a goal of the study. Finally, we wanted to identify the verbal and nonverbal forms of communication that students perceived as weight loss pressures from their teachers, and this was investigated in the context of the dancers own perceptions of what her desired body image is and what she believed her ballet teachers would like.

Method

Participants

The participants were 40 female ballet students who ranged in age from 12-23 years ($M = 17.5$, $SD = 2.5$) and had the average Body Mass Index of ($M = 19.3$, $SD = 1.5$). The dancers were enrolled in serious ballet schools in a variety of areas. The schools offered similar programs where dancers were provided with quality training that would enable them to pursue a professional career if that was their desire. Of the 30 schools contacted, five agreed to let their students participate (17% return rate). Of the possible 240 students that received the questionnaires, 40 opted to participate in the study (17% return rate). Of the 40 students, 42% desired to reach an advanced level in ballet, while the other 58% desired to reach a professional level in ballet. The range in years of training received by the students was from 5-19 years ($M = 12.4$, $SD = 3.0$). Participants were recruited from Ontario ($n = 4$), Vermont ($n = 20$), Massachusetts ($n = 2$) and Utah ($n = 14$) ballet schools.

Materials

The measures used in the study included the BALLEET Scale, the Eating Behavior Questionnaire and the Athletic Image Scale. The Athletic Image Scale, a 30-figure item, self-report scale was designed by Lenart et al. (1995). The scale was a pilot athletic image scale developed from the 15-figure Visual Image Rating Scale. Test-retest reliability was demonstrated for the 15-figure scale. The scale served to investigate the perceptions of the

students on their body weight, what they would ideally like to look like, and what they perceived their teachers would prefer their physiques to look like.

The BALLET scale is a 25-item self-report questionnaire. In developing the BALLET Scale, the Weight Pressures in Dance (WPD) questionnaire (Reel, 1998) and the CHEER questionnaire (Reel & Gill, 1996) were reviewed and appropriate information was modified and incorporated. As well, the personal experience of the first author and information solicited from other dancers assisted with the development of the scale. Alpha coefficients were calculated and internal reliability of the BALLET Scale was established with an $\alpha = .92$. The BALLET Scale presents demographic information about the participants such as, age, height, weight, number of years dancing, current level in ballet, the level they want to reach in ballet, number of times they dance per week, length of each dance session, the number of dance teachers they have had, and how many times per week they exercise in addition to ballet class. Following the demographic information, three statements which inquire about the teacher as a possible source of pressure are presented¹. The first statement reads: "My teacher(s) believe(s) that the lightest dancers have a distinct performance advantage." The second statement reads: "My teacher(s) believe(s) that if I lost at least 5 pounds I would perform in ballet at a higher level." Finally, the third statement reads: "I think ballet teachers are a source of weight pressure for their students." Below each statement is a likert scale ranging from 1-7, with 1 corresponding to strongly disagree, 4 moderately agree and 7 strongly agree.

The scale also includes various forms of communication that could be perceived by the students as messages for them to lose weight, including six verbal, ten nonverbal and seven neutral items. Items linked to the verbal form of communication involve the teacher actually being heard making a comment. The following statement is an example of a verbal item on the

scale: “When my ballet teacher(s) tell(s) me that I have gained weight.” Nonverbal forms of communication are more broadly based and could include body language, touching or other forms of communication intended to correct the body placement of the dancer. An example of a nonverbal item is: “When my teacher(s) give(s) the thinner dancers more solos.” Several neutral items were included in the questionnaire as well, which did not pertain to a form of communication that could be perceived as a weight loss pressure. Their inclusion was to assure that the student would not identify these items as pressures, therefore ensuring that the nonverbal and verbal items are appropriate. An example of a neutral item is: “When my teacher(s) tells me to buy new pointe shoes.” A likert scale was presented below each statement ranging from 1-7, with 1 corresponding to strongly disagree, 4 moderately agree and 7 strongly agree.

The Eating Behavior Scale is a self-report questionnaire developed by the researchers. The experience of the researcher and her knowledge of the ballet environment, as well as inquiries with other dancers and their knowledge of weight loss techniques that may be unique to ballet dancers are included in the 20-item Eating Behavior Scale. The WPD questionnaire (Reel, 1998), the EDI (Garner et al., 1983) and the EAT (Garner et al., 1982) as well as weight loss techniques used by ballet dancers in the literature were also reviewed. Through all of these sources, 20 possible weight loss techniques that could be used by a dancer are listed. Fourteen of the items are considered to be unhealthy ways to lose or maintain weight, five items are considered to be healthy ways to lose or maintain weight and the remaining one item upon further reflection, was deemed ambiguous and was not identified as healthy or unhealthy (see Appendix D). Alpha coefficients were calculated and internal reliability of the Eating Behavior Scale was established with an alpha of .73.

Following each weight loss technique, six possible responses are presented: (1) always,

(2) usually, (3) often, (4) sometimes, (5) rarely, or (6) never. A description of the various responses were provided to the respondent in the instructions such that: “always” meant the behavior was used daily; “usually” meant that it was used weekly; “often” was biweekly; “sometimes” meant monthly; and “rarely” was indicated as yearly. The instructions also state that the respondent is to rate the use of the technique with the specification that the particular technique is used for the purpose of losing or maintaining weight. The Eating Behavior Scale also includes two open-ended questions. The first question inquires about the source through which the students learned of the weight loss techniques, if any, that they engage in. The second question regards whether there are any weight loss techniques the students engaged in that were not included on the questionnaire.

Procedure

The BALLEET Scale, Eating Behavior Scale and Athletic Image Scale were administered to the students at the ballet schools or at the university where they were enrolled. Parental consent was required of students who were age 15 and younger in Canada and 17 and younger in the United States. Parents of underage students were provided with a package containing the materials for their review. Upon reviewing the materials, the parents decided whether or not they would allow their child to participate in the study. Receipt of the signed consent form indicated to the researcher that the parents were willing to allow their child to participate.

Of age students were given a package which contained the materials, information and consent form at the beginning of the ballet class. The researcher was not present to distribute the questionnaires for 50% of the schools. For these participants, the questionnaires were distributed to the students by an impartial person. After the questionnaires were completed, they were placed in a sealed envelope and returned to the impartial person who mailed them directly

to the researcher. All participants were informed that their results would be kept confidential and that they could discontinue the questionnaire at any time. Students were asked to indicate their level of agreement to each statement presented to them on a likert scale if they perceived that behavior as a message for them to lose weight. They did so by circling the answer that best corresponded to their perception of the statement presented to them. If a statement did not apply to them, they were instructed to leave it blank. Students then placed the questionnaires in the envelope provided to them. Approximately 20 minutes were necessary to complete the questionnaires and the Athletic Image Scale.

After completing the questionnaires and Athletic Image Scale, the students were provided with information concerning the dangers of engaging in unhealthy eating practices. If the researcher was present for the completion of the questionnaires, the information was verbally shared with the participants. If the researcher was unable to be present, students were provided with a sheet that described the effects of malnourishment on performance and health and well being.

Analysis

Recall that neutral items were included in the BALLET Scale. These neutral items were statements that were thought to be in no possible way a form of communication that could be construed as a weight loss pressure. It was thought that all students regardless of what group they fit into from the Athletic Image Scale, would strongly disagree that the behavior described in the neutral items could be perceived as a weight loss pressure and thus would give it a low rating. In this respect, neutral items also served as an exclusion criteria. If a participant rated neutral items as weight loss pressures, we questioned whether they took time to read each question and to fill out the questionnaire correctly. Fortunately, no participants were excluded

from the analysis based on this criteria. Also of importance is that the analysis was performed only on the verbal and nonverbal items of the BALLET Scale, with the neutral items not included.

In terms of the Eating Behavior Scale, scoring was based on a review of the EDI where responses are presented as (1) always, (2) usually, (3) often, (4) sometimes, (5) rarely, or (6) never. Items were scored on a scale from 0-3: Always received a score of 3; usually received a score of 2; often received a score 1; sometimes, rarely and never received a score of 0. It was observed that definitions were not provided for the possible responses on the EDI. Therefore, definitions were provided for each possible response on the Eating Behavior Scale. As a result, items were similarly scored on a scale from 0-3, however, the break down for these scores were as follows: Always received a score of 3; usually and often received a 2; sometimes a score of 1; and rarely and never received a score of 0.

Results

Weight Loss Pressures and Eating Behaviors. The results indicated that students agreed to the statement: "I think ballet teachers are a source of weight pressure for their students." The average response was 5.1 on a seven-point scale ($SD = 1.7$). Further, correlation analysis revealed a significant positive relationship between the scores obtained for unhealthy eating behaviors and the perception of the teacher as a source of weight loss pressure ($r = .49, p = .01$). That is, the more a student agreed to the statement that ballet teachers were a source of weight loss pressure, the more likely they were to report using unhealthy behaviors to lose weight. No relationship, however, was found between healthy weight loss techniques and the perception of the teacher as a source of weight loss pressure.

In terms of the actual techniques used to lose weight, dancers were more likely to use healthy means of losing weight than unhealthy. The most common methods reported to lose or maintain a low body weight were avoiding fast food ($M = 2.2$, $SD = 1.0$), eating a balanced diet ($M = 2.0$, $SD = .7$), consuming the recommended amount of calories per day ($M = 1.3$, $SD = 1.0$) and eating low fat foods ($M = 1.9$, $SD = .7$). Very low occurrences were noted for the unhealthy methods. For example, laxative use ($M = .1$, $SD = .4$), vomiting ($M = .1$, $SD = .4$), and use of diet pills ($M = .1$, $SD = .4$) were most often reported as being used rarely or never.

Forms of Communication Perceived as Weight Pressures. Behaviors that were given a rating of four or higher on the Likert scale were interpreted as a possible behavior to highlight as a weight loss pressure. The four was used as a criterion because it corresponded on the Likert scale to moderately agreeing that the given behavior was a weight loss pressure. The specific forms of communication the entire sample of ballet students identified as pressures for them to lose weight are presented in Table 1.

Recall that an issue of concern of the current study was that the forms of communication perceived as weight loss pressures could differ depending on the student's perception of their body image. More specifically, their perception of: 1) What their current body image is, which is referred to as current body image, 2) What the students would like their body image to be, which is referred to as desired body image and 3) What the students' perceive their teacher would like their body image to be, which is referred to as teachers' desired body image. Based on these perceptions, students were to be classified into one of four groups (self-pressure group, teacher-pressure group, no-pressures group and combined-pressures group). Surprisingly, students fit into only two groups. Twenty-six students (65 %) fell into the combined-pressures group and twelve students (30 %) fell into the no-pressures group. The remaining two (5 %)

students could not be classified as they did not complete the Athletic Image Scale.

Consequently, subsequent analysis compared only the combined-pressures group to the no-pressures group.

Due to an unequal number of participants in each of the groups and the Likert scale being representative of ordinal data, Mann-Whitney U analyses were conducted on those behaviors whose mean value of at least one of the groups was rated as moderately agree or greater. Those behaviors whose mean value was rated as below moderately agree, were not considered to be weight loss pressures and as such were thought to be irrelevant to the immediate issue. Mann-Whitney U analyses showed that there were indeed group differences in regards to behaviors perceived as weight loss pressures by dancers. Those behaviors that yielded differences are shown in Table 2.

Desired Goal of the Ballet Student. It was thought that the desired goal of the student could influence their perception of their weight and their perception of what they believe their teacher would like them to be. Interestingly, 42% of the students in the combined-pressures group desired to reach the advanced level and the remaining 58% desired to reach a professional level in ballet. The same percent scores were found for those students in the no-pressures group.

Discussion

Although researchers have identified the coach as a possible source of weight loss pressure for athletes in lean body sports (Harris & Grecco, 1990; Rosen & Hough, 1988; Sundot-borgen, 1994) no research exists, to our knowledge, that directly measures whether athletes perceive their coach as a weight loss pressure and the possible ramifications of this. Given that ballet is also a lean-body sport and that the ballet teacher has a similar role to that of the coach, we investigated ballet teachers as a source of weight loss pressure in the ballet

environment. Further, we sought to determine whether a relationship existed between unhealthy eating behaviors and the perception of the teacher as a weight loss pressure. Finally, we attempted to identify forms of communication that may be construed as weight loss pressures by the students.

The current study has shown that students do perceive teachers as a source of weight loss pressure. Students agreed with the statement “I think ballet teachers are a source of weight loss pressure for their students.” Moreover, a positive relationship was found between the level of perceived pressure from the teacher and the reported involvement in unhealthy weight loss practices by students. A relationship was not found, however, between the perceived pressure from the teacher and the reported healthy weight loss practices. A possible explanation for these findings could be that those who perceive the teacher as a source of weight loss pressure may engage in those methods that provide them with the fastest weight loss results, and those may not necessarily be the healthiest.

A positive finding of the current research was that dancers reported engaging in healthy weight loss techniques to lose or maintain weight more so than unhealthy techniques. This contradicts the findings of previous research which has indicated an alarming rate of unhealthy eating behaviors by ballet dancers to lose or maintain weight (Brickell, 1996; Maloney, 1983). A possible reason for the engagement in healthy methods of losing weight may be related to comments made by the students where they indicated that their teachers addressed weight issues in ballet and encouraged them to stay healthy. As one dancer noted in her open comments section, “All they talked about is having a healthy diet and the importance of that, and also the dangers of eating disorders.”

Other explanations include the possibility that, in past research, dancers have not been given the opportunity to indicate that they use healthy techniques to lose weight. Rather, the EDI, for example, only identifies a dissatisfaction or drive for thinness they may have for their body along with other psychological traits. Similarly, the EAT scale has a limited number of healthy items that the respondent could identify as using. Thus, it is possible that dancers in past studies were engaging in healthy behaviors to address their concerns with weight, but were not given the opportunity to express this.

Another issue that needs to be noted in this regard is that a limitation of self-report questionnaires is that respondents may not have been truthful in their answers. The dancers may have been more likely to report that they used healthy eating behaviors because it was unpleasant for them to acknowledge any unhealthy behavior they may have engaged in. This may also hold true for the participants who completed the questionnaires.

Given that ballet students indicated that they perceived the ballet teacher as a source of weight loss pressure, the issue that follows concerns identifying what teachers were doing that lead the students to perceive them as a source of weight loss pressure. This was examined through the BALLET Scale. With respect to verbal statements made by ballet teachers, direct comments were perceived most as weight loss pressures. For example, a teacher telling a student that she has lost weight can be interpreted as a weight loss pressure. A comment provided by a student in the open comments section supports this interpretation. The student stated, "I became more concerned about my weight after I had lost 15 pounds and my teacher praised me." Interestingly, students were also sensitive to the teacher praising a noticeable weight loss in another dancer. Not surprisingly, students also indicated that a verbal comment focusing on the student having gained weight was perceived as a weight loss pressure. That the

dancers see these verbal comments about weight loss or gain as a pressure is in line with research of athletes in other lean body sports. In lean body sports such as gymnastics, athletes have commented on the fact that their coach has told them they were too heavy (Rosen & Hough, 1988) or indicated that verbal comments made by their coaches concerning their weight were perceived as weight loss pressures (Dummer et al., 1987; Rosen & Hough, 1988).

Another noted behavior of the teachers concerned the discussion of weight loss methods. Students indicated that when the teacher discussed their dieting techniques in front of them, they perceived it as a weight loss pressure. Students commented that teachers directly suggested weight loss techniques to them and that these teachers linked the weight loss to performance benefits. For example, one student commented that a teacher said, "Girls, there is one week left before the performance, You could all stand to lose 5 lbs. Just eat lettuce and drink H2O." Maloney (1983) noted a similar suggestion made by a ballet teacher concerning weight loss to a student in order to benefit her stage appearance. Thus, the relationship between performance detriments as a function of excessive weight loss should perhaps be a topic clearly conveyed to ballet teachers.

Finally, nonverbal forms of communication also surfaced as being relevant. Students were in agreement for instance that casting thinner dancers in lead roles and also placing them in front and center in the choreography of dances were perceived as weight loss pressures. The casting of thinner dancers in lead roles was also a pressure identified by Reel (1998) in her research with ballet dancers. The perception of these behaviors as weight loss pressures is more easily understood when commented on from the perspective of a student. For example, a student noted in the open comments section of the ballet scale, "I danced in a company and as soon as a

woman got dangerously thin, she “suddenly” got roles - definitely a warped message from the director!”

Artistic directors and teachers may not be aware of the fact that they tend to choose smaller dancers for roles, however, as indicated, the dancers definitely do notice this fact. Not only do they notice, they believe that their future in dance could be at risk if they do not obtain the ideal that is preferred by the companies they desire to join. A number of dancers chose to comment on this in the open comments section. One dancer said, “The general consensus seems to be that if you are not emaciated, you will never make it to the professional level, and that it is much harder if you don’t have the “ideal” body.” Such a comment suggests that dancers correlate success in the ballet world with the ideal physique they consequently aspire to attain or maintain (Calabrese & Kirkendall, 1983).

An important point of mention though, is that even more behaviors are construed as a weight loss pressure if a ballet student is one who desires to be of a lesser weight and perceives that her teacher would like her to be of a lesser weight. The combined-pressures group perceived more verbal and nonverbal behaviors on the part of the teacher as weight pressures than students who were content with their current physique and perceived that their teacher was as well. This is important to consider because perhaps the dancers who belong in the combined-pressures group may have misperceptions about their actual weight and the desired weight they believe their teacher wants them to be. This misperception of actual size could intensify seemingly innocent forms of communication into perceived weight loss pressures, as noted with swimmers in a study by Dummer et al. (1987).

Related to the issue of perceptions, is that surprisingly the desired goal in ballet of those who fit under the no-pressures group and those who fit under the combined-pressures group did

not differ. We may conclude that a dancer's desired goal in ballet did not influence her perception of her weight and what she believed the teacher would like her to be. Perhaps the results would have varied for students who belong to a less competitive or highly competitive ballet school. It is undecided as to whether the desired goal of the dancer in the different competitive levels would influence her perception of her weight and what she believes her teacher would like her to be.

The research undertaken here does have certain limitations. First with respect to the questionnaires, the Eating Behaviors Scale and BALLET Scale were developed by the researchers and have not been checked for various validity or reliability measures. Noteworthy, however, is that the instructions on the questionnaires were very clear. For example, on the Eating Behavior Scale, the instructions clearly stated that the participant was to consider each behavior in terms of being engaged in for the purposes of losing weight or maintaining weight. In addition, the BALLET Scale also instructed participants to consider each behavior in terms of whether it was a weight loss pressure, not just a behavior engaged in by ballet teachers. As well, the questionnaires were also developed with assistance from other dancers in the field and similar weight loss pressure scales were examined.

Another limitation of the current study is the sample size. Of the possible 240 students that received the questionnaires, only 40 opted to participate in the study (17% return rate). It was up to the ballet students discretion to complete or not complete the questionnaires. It may be that those who did not complete the questionnaires had issues with the topic under investigation. Therefore, it is possible that the participants in this study do not accurately represent the population of ballet students. This leads to the suggestion that this research should be conducted with greater numbers and perhaps with more personal contact so that the

participants build a trusting relationship with the researcher. Indeed, the open comments section did generate interesting information, suggesting that qualitative research may be a useful method used in future research.

The low return rate also raises the issue about the sensitivity of this topic for the ballet community. This view is related to the low number of schools that allowed the researchers in to conduct the study. Of the 30 schools contacted, only five agreed to let their students participate (17% return rate). It is also reasonable to suggest that only those schools who felt that they did not have issues with the topic of the research allowed the participation of their students, whereas those who may have had issues declined to offer their students as participants.

Furthermore, an original purpose of the study was to inquire about the various forms of communication the teachers report they use in their repertoire, as well as gain their perspective on the issue under investigation. It was thought that we would be able to compare the responses of the students to those of the teachers and further our understanding of the atmosphere and perceptions of those in the ballet environment. Unfortunately, we were once again presented with a low return rate. Only one of the five schools (20%) completed the questionnaires, with a 50% return rate at that specific school. The researcher used to train at that particular school and the participation of the teachers and the high return rate may be related to her familiarity with the school and staff. This further strengthens the idea that a better relationship between the researcher and the participants is necessary to ensure greater participation.

Overall, these findings suggest that it may be important for the teacher to learn about their dancers' perception of body image. One recommendation therefore, is for teachers to become aware of those students who desire to be of a lesser weight and who perceive that their teachers would like them to be of a lesser weight as well. Also important to consider is that a

positive relationship existed between the perceived pressure of the teacher as a source of weight loss pressure and the reported use of unhealthy weight loss techniques. Given this, it is suggested that teachers gain an understanding of the behaviors that are interpreted as weight loss pressures. By gaining a better understanding of the forms of communication that could be perceived as a weight loss pressure to vulnerable students, teachers could exercise sensitivity in the way they interact with their students.

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Footnote

¹Although analysis was conducted on all three statements, only the third statement was included in the results. It was observed that the first and second statements could differ in meaning depending on the perspective of the respondent. For example, in reference to the second statement, it was noted that a dancer may already be dangerously thin, therefore, the loss of five pounds would not necessarily lead to higher performance levels. Important to note, however, is that the relationship did continue to exist when all three statements were combined, but for the reason stated above, only the third statement was used.

Table 1

Teaching Behaviors Perceived as Weight Loss Pressures^a

Teaching behavior	<u>M</u>	<u>SD</u>
“When my teacher(s) place(s) the thinner dancers in front and center in dances”	4.52	1.96
“When my teacher(s) discuss(es) her/their dieting techniques in front of myself and/or the other dancers”	4.17	2.06
“When my ballet teacher(s) tell(s) me that I have gained weight”	5.93	1.77
“When my teacher(s) tell(s) me that I have lost weight”	4.06	2.24
“When my teacher(s) give(s) the thinner dancers more solos”	5.19	1.79
“When my teacher(s) praise(s) a noticeable weight loss in another dancer”	4.65	2.20

Note. Statements were rated on a Likert scale ranging from 1-7, with 1 corresponding to strongly disagree, 4 moderately agree and 7 strongly agree.

a The above scores include the averaged results of the combined-pressures group and no-pressures group.

Table 2

Group Differences for Teaching Behaviors Perceived to be Weight Loss Pressures

Teaching behavior	CPG ^a		NPG ^b		<u>u</u> ^c	<u>p</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
Nonverbal items	3.89	1.16	2.64	1.66	85.0	.02
“When my teacher(s) measure(s) me for my costume”	4.08	2.31	2.42	1.83	92.5	.04
“When my teacher(s) has what I perceive to be the ideal ballet body”	4.62	1.60	2.50	1.83	59.5	.01
Verbal items	4.63	1.67	2.89	1.67	66.5	.01
“When my teacher(s) praise(s) a noticeable weight loss in another dancer”	5.20	1.87	3.11	2.42	55.0	.02
“When my teacher(s) tell(s) me that I have lost weight”	4.56	2.12	2.67	2.06	59.5	.03
“When my teacher(s) discuss(es) her/their techniques in front of myself and/or the other dancers”	4.80	1.76	2.60	2.01	50.5	.01

a CPG = Combined-pressures group

b NPG = No-pressures group

c u statistics from Mann-Whitney U analysis

Chapter IV

Elaborated Discussion

Elaborated Discussion

The next section contains results and discussion that were not included in the article. Originally, the fourth purpose of the study was to examine if there were any differences between the types of behaviors the students reported the teachers used in their repertoire, and the types of behaviors the teachers reported using. Due to the fact that teachers' questionnaires were returned from only one of the schools, we were not able to compare the data from the group of teachers to the entire pooled data from all of the schools. Therefore, in the following section we examine the teachers questionnaires and the students questionnaires that came from the same school. Open-ended responses to the questionnaires and an overall discussion of the results and other issues that were not elaborated upon in the article are also presented. Finally, suggestions for further research are addressed.

Elaborated Discussion

An original purpose of the study that was not included in the journal article was to examine any discrepancies that may exist between the behaviors the teachers reported using in the classroom and the behaviors the students perceived the teachers used. To investigate this issue we included a questionnaire for the teachers in all packages sent to schools. The questionnaire inquired about the teaching behaviors teachers may or may not use in their repertoire that could be construed as weight loss pressures (see appendix D). The teachers' questionnaire mirrored the students' BALLEET Scale, but statements were modified to ask the teachers if they used the particular behavior in their teaching repertoire. We hypothesized that students in the combined-pressures group would perceive more behaviors on the part of the teacher as weight loss pressures than the teachers indicated they used. Conversely, we predicted that no discrepancies would exist between the reported behaviors of the no-pressures group and the behaviors the teachers indicated they used. This original purpose was not included in the journal article because of the five possible schools contacted, only one school of teachers was represented and the sample size was low as well. For this discussion, however, analyses were conducted that included 6 teachers and 14 students belonging to the same school.

For the classification of students into the different pressure groups, 50% desired to be of a lesser weight and perceived that their teachers desired them to be of a lesser weight (combined-pressures) and the remaining 50% of students were content with their current weight and believed that their teachers were content with their current weight as well (no-pressures group). Mann-Whitney U analyses for each of the behaviors on the BALLEET Scale showed that no differences existed between the perceived behaviors of the teachers by the no-pressures group and the reported behaviors of the teachers. Significant differences, however, were found

between the perceived behaviors of teachers by the combined-pressures group and the reported behaviors of the teachers.

Specifically, students belonging to the combined-pressures group perceived the following behaviors of the teachers as messages for them to lose weight: “When my teacher(s) has what I perceive to be the ideal ballet body” ($\underline{u} = 4.5$, $\underline{p} = .02$), “When my teacher(s) gives the thinner dancers more solos” ($\underline{u} = 2.0$, $\underline{p} = .01$), and “When my ballet teacher(s) tells me that I have gained weight” ($\underline{u} = .5$, $\underline{p} = .01$). The mean scores for the statements are shown in Table 1.

The results supported the hypothesis. Students belonging to the combined pressures group did perceive more behaviors as weight loss pressures on the part of the teacher than the teachers indicated they used, whereas for the no-pressures, group no discrepancies existed. A possible reason for the findings is that students who belong to the combined-pressures group may have misperceptions about their current weight and the desired weight they believe their teachers would like them to be. It is also possible that teachers and students who belong to the no-pressures group under-report behaviors. Dummer et al. (1987) examined a group of swimmers and discovered that many of the participants in their study had severe misconceptions about their weights. In fact, those who perceived themselves as overweight were likely to worry about weight and based their perception of weight on messages they received from others in their environment. Accordingly, ballet students may misinterpret seemingly innocent behaviors by the teachers as messages for them to lose weight. Students in the no-pressures group are most likely more secure about their current weight and the weight they believe their teachers would like them to be, therefore, they are unlikely to perceive behaviors on the part of the teachers as weight loss pressures.

Other information that we sought to obtain from the ballet scale was whether teachers believed certain forms of communication they used in the classroom could be construed as a weight loss pressure. Teachers were asked to circle those behaviors on the BALLET Scale that they believed could be construed by the student as a weight loss pressure. None of the teachers did this. Perhaps the teachers did not carefully read through the directions and did not realize they were asked to do this, or they simply did not believe that any of the behaviors mentioned could be perceived as weight loss pressures by the students. Comments from the open-ended section of the questionnaire are somewhat suggestive of the latter alternative. Unfortunately, we cannot be reasonably certain of this. Follow-up investigation on this issue is recommended.

Also of interest was information shared by the teacher in the open comments section of the questionnaire. One teacher, for example, provided some insight on how she felt a vulnerable student could misinterpret a role assignment as a weight loss pressure, she stated:

I truly believe that a thinner dancer has an advantage, over a heavier one, due to the technical demands on the body. I do not reward a dancer who is thinner because she is thin, but if she is a more qualified dancer for the part, I feel the heavier dancer could perceive that role assignment as a negative one toward her weight, though that was not my reason for the casting.

It would be interesting to ask the teacher to provide a definition of what she considers a heavy dancer to be. It is quite rare to see a dancer who is overweight, especially in a more competitive dance environment. Knowing that ballet dancers are often underweight, perhaps the teacher considered a perfectly healthy dancer who was of the right weight for her height to be heavy when compared to the ideal of the underweight dancer. In this case, perhaps it is the teacher

who has misperceptions concerning weight and this misperception is translated through her role assignment, which then could justifiably be perceived by the students as a weight loss pressure.

Another teacher did indicate that although teachers do acknowledge the benefits of being of a lesser weight in the ballet world, they do not feel that it is not their place to intensify this already existent pressure for students.

As a teacher I would never add to the stress of body image that is already there for the dancer through ballet, and the rest of the woman's world. I have not come across an incredibly talented ballet dancer that doesn't have the ballet body, so I don't know what advice I would give to her if she were my student, I certainly would not tell her to switch to modern- or I wouldn't tell her to lose weight. She probably would already know that her body may come in the way of her dancing through mirrors and the rest of the ballet world. I am there to channel their love for ballet and give them the artistry of their love for dance; not to inhibit that. I believe they will be confronted with weight issues through the ballet world. It is already there without my making issue of it.

Based on the results and qualitative component of the study it seems as if some teachers may not believe they engage in behaviors that could be construed as weight loss pressures. They may knowingly engage in these behaviors and choose to portray naivety to the situation, or they truly are unaware of the consequence. As mentioned earlier, the perspective of the student may intensify or lessen the situation as well.

Also worthy to consider is that there are other possible forms of communication that could be perceived as weight loss pressures that were not listed on the BALLET Scale. Students indicated in the open comments section that they believed their teachers tilted the mirrors in class to make the dancers appear heavier than they actually were. Another comment concerned

the placement of heavier dancers into a less intensive level. The dancers believed the placement was solely due to their weight rather than their skill level. Given such information, it would be beneficial to modify the existing BALLET Scale to include any behaviors that were not included at the time of its development.

Finally, the teachers' version of the BALLET Scale had the three pressure statements phrased from two perspectives. The first perspective, for example, is phrased: "In general, teachers believe that the lightest dancers have a distinct performance advantage." The second perspective is phrased: "Do you believe that the lightest dancers have a distinct performance advantage?" The mean scores for the statements are shown in Table 2. Although teachers did not agree that they were a source of pressure for their students, they generally agreed that the lightest dancers have a distinct performance advantage. Perhaps this belief is unconsciously demonstrated through their interaction with their students.

Of further interest, is that although teachers rated the statement: "In general, ballet teachers are a source of weight pressure for their students," as just below moderately agree, they rated it significantly lower when the perspective was applied to their personal beliefs ($\bar{u} = 4.5$, $p = .03$). As mentioned earlier, it is possible that the teachers did not believe that any of the behaviors mentioned on the BALLET Scale could be perceived as weight loss pressures by the students. If they did not perceive those behaviors as weight loss pressures and included them in their repertoire, it is likely that they did not believe they could be a source of pressure for their students. Or, perhaps the admittance to their role as a source of pressure was undesirable, even on an anonymous questionnaire.

A limitation of the analysis is that the sample size of the teachers and students is small. The return rate of the teachers' questionnaires was very low and unfortunately only the teachers

from one school returned the questionnaires. Perhaps the issue under investigation is threatening for the teachers, as indicated by their reluctance to complete the questionnaires.

The small sample size could also be indicative of why students only fit into two of the four original groups that were classified by the Athletic Image Scale. Without too much speculation, it is possible that the quality of training received by the population in the current study only contained students that either were confident or unconfident with their current physique. The students used for this particular study did not live at the schools in which they train. Students who live at the schools where they train, may be exposed to a different intensity of pressure. Perhaps dancers who receive training at a less competitive ballet school may fall into the self-pressure and/or teacher-pressure groups. This is certainly an intriguing element to investigate in future research that could yield some interesting results.

It would also be worthy to examine the type of training the teachers received when they were students and the experience they had with their own teachers. It would be useful to examine if they teach similar to the way they were taught, or if they have developed a different teaching style based on a negative or positive experience they may have had with their own teachers.

In summary, those in the combined-pressures group perceived more behaviors as weight loss pressures on the part of the teacher than the teachers indicated they used, whereas no discrepancies were found between the no-pressures group and the teachers. It is unclear whether teachers are aware that they use behaviors that could be construed as weight loss pressures, or if they truly do not believe they may engage in these behaviors. The results and discussion included in this section have certainly opened the door for future avenues of research in this area.

Table 1

Group Differences for Teaching Behaviors Perceived to be Weight Loss Pressures

Teaching behavior	CPG ^a		NPG ^b	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
“When my teacher(s) has what I perceive to be the ideal ballet body”	4.43	1.62	2.25	1.75
“When my teacher(s) give(s) the thinner dancers more solos”	4.67	1.75	2.8	2.49
“When my ballet teacher(s) tell(s) me that I have gained weight”	5.25	2.22	3.5	2.65

a CPG = Combined-pressures group

b NPG = No-pressures group

Table 2

Pressure Statements Presented From Two Perspectives

Pressure Statements	<u>M</u>	<u>SD</u>
“In general, teachers believe that the lightest dancers have a distinct performance advantage”	5.2	2.4
“In general, teachers believe that if a student loses at least 5 pounds they would perform in ballet at a higher level”	3.5	2.5
“In general, ballet teachers are a source of weight pressure for their students”	3.8	1.9
“Do you believe that the lightest dancers have a distinct Performance advantage?”	4.7	2.1
“Do you believe that a student loses at least 5 pounds they Would perform in ballet at a higher level?”	2.2	1.6
“Do you think you are a source of weight loss pressure for your students?”	1.7	.8

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Appendix A
Contribution of Collaborators

Contribution of Collaborators

Upon my arrival at the University of Ottawa, Diane Ste-Marie presented me with articles to review for the purpose of developing a research question. After reading an article about coaches experiences concerning weight (Griffin & Harris, 1995), I devised a hypothesis that pertained to the role of the ballet teacher as a source of weight pressure for ballet students. I then presented my idea to Diane and the other members of our working lab group. Diane met with me on several occasions to solidify the purposes of the study, methodology and the proposed analysis. I then began writing the thesis proposal and submitted drafts to Diane who in turn made suggestions and revisions.

Upon the completion of the proposal, changes were made to the literature review and questionnaires upon the request of Dr. Beausoleil and Dr. Beaudoin. Specifically the evolution of the ideal body type in society was added to the literature review. Healthy techniques of losing weight were also added to the Eating Behaviors Scale and the desired goal of the dancer was added to the demographic section of the BALLET Scale.

After I distributed and collected the completed questionnaires, Dr. Diane Ste-Marie advised me on the appropriate statistical analysis for our research questions and I entered in the data and conducted the analyses. Dr. Ste-Marie and members of the lab group then assisted with the interpretation of the results.

Dr. Ste-Marie edited all documents of the article, revised discussion and the revised literature review. The process of writing the article and elaborated discussion began in January 2000 and was completed in May 2000.

Appendix B
BALLET Scale (students)

BALLET Scale:
Students

Please read the following statements. For each statement, indicate your level of agreement by circling the number that best corresponds to your perception. The scale ranges from 1-7, with 1 as strongly disagree (SD), 4 as moderately agree (MA), and 7 as strongly agree (SA). Please answer the questions alone, only seek assistance when a statement is unclear. If at any time you wish to not continue completing the questionnaire, please feel free to do so, with no fear of reprisal from the researcher.

Where do you dance? Region _____ Country _____

Age: _____.

Weight: _____.

Height: _____.

Number of years dancing: _____.

Current level in ballet: _____.

My goal is to reach _____ level in ballet.

I dance _____ times per week.

How long is each dance session? _____.

How many dance teachers have you had? _____.

I exercise/work out (in addition to ballet class) _____ times per week.

- A. Zero
- B. 1 or 2 days/week
- C. 3-5 days/week
- D. 6 or 7 days/week
- E. 2 or more times per day, every day

1. My teacher(s) believe(s) that the lightest dancers have a distinct performance advantage.

1	2	3	4	5	6	7
SD			MA			SA

2. My teacher(s) believe(s) that if I lost at least 5 pounds I would perform in ballet at a higher level.

1	2	3	4	5	6	7
SD			MA			SA

3. I think ballet teachers are a source of weight pressure for their students.

1	2	3	4	5	6	7
SD			MA			SA

Please read the following statements. For each statement, indicate your level of agreement based on the idea that you interpret the behavior of your teacher(s) as a message for you to lose weight by circling the number that best corresponds to your perception. The scale ranges from 1-7, with 1 as strongly disagree (SD), 4 as moderately agree (MA), and 7 as strongly agree (SA). If a behavior is indicated that does not apply to any of the teachers you have had, please leave it blank.

1. When my teacher(s) suggest(s) that I pursue modern dance because of my size.

1	2	3	4	5	6	7
SD			MA			SA

2. When my teacher(s) ask(s) me to take off any jewelry during ballet class or a performance.

1	2	3	4	5	6	7
SD			MA			SA

3. When my teacher(s) place(s) the thinner dancers in front and center in dances.

1	2	3	4	5	6	7
SD			MA			SA

4. When my teacher(s) tell(s) me to work on my turn out.

1	2	3	4	5	6	7
SD			MA			SA

5. When my teacher(s) tell(s) me to hold in my stomach in class.

1	2	3	4	5	6	7
SD			MA			SA

6. When my teacher(s) has what I perceive to be the ideal ballet body.

1	2	3	4	5	6	7
SD			MA			SA

7. When my teacher(s) poke(s) an area of my body that I need to lift or strengthen.

1	2	3	4	5	6	7
SD			MA			SA

8. When my teacher(s) tell(s) me to put my hair up away from my face.

1	2	3	4	5	6	7
SD			MA			SA

9. When my teacher(s) discuss(es) her/their dieting techniques in front of myself and/or the other dancers.

1	2	3	4	5	6	7
SD			MA			SA

10. When my teacher(s) permit(s) me to wear baggy clothing over my leotard to hide my body.

1	2	3	4	5	6	7
SD			MA			SA

11. When my teacher(s) tell(s) me to buy new pointe shoes.

1	2	3	4	5	6	7
SD			MA			SA

12. When my teacher(s) give(s) attention to a thin dancer.

1	2	3	4	5	6	7
SD			MA			SA

13. When my teacher(s) praise(s) a noticeable weight loss in another dancer.

1	2	3	4	5	6	7
SD			MA			SA

14. When my teacher(s) measure(s) me for my costume.

1	2	3	4	5	6	7
SD			MA			SA

15. When my teacher(s) fail(s) to discourage talk about weight among the dancers.

1	2	3	4	5	6	7
SD			MA			SA

16. When my teacher(s) tell(s) me that I have lost weight.

1	2	3	4	5	6	7
SD			MA			SA

17. When my teacher(s) tell(s) me that I need to get more sleep.

1	2	3	4	5	6	7
SD			MA			SA

18. When my teacher(s) place(s) her hands on parts of my body to help me feel the correct body placement.

1	2	3	4	5	6	7
SD			MA			SA

19. When my teacher(s) tell(s) me to stretch my legs.

1	2	3	4	5	6	7
SD			MA			SA

20. When my teacher(s) give(s) the thinner dancers more solos.

1	2	3	4	5	6	7
SD			MA			SA

21. When my ballet teacher(s) tell(s) me that I have gained weight.

1	2	3	4	5	6	7
SD			MA			SA

22. When my teacher(s) tell(s) me to arrive on time for class and rehearsals.

1	2	3	4	5	6	7
SD			MA			SA

23. When my teacher(s) tell(s) me or has someone else tell me that I need to wear more support over my breasts.

1	2	3	4	5	6	7
SD			MA			SA

Has your teacher(s) given you and/or the other students nutritional advice in the past, what was the advice given?

If you perceive forms of communication by your teacher as weight loss pressures, are there any more forms of communication that were not listed on the questionnaire that leads you to believe you need to lose weight or maintain your current weight

Please comment on anything that you feel is related to weight loss pressures in ballet:

Appendix C

BALLET Scale (teachers)

Please read the following statements. For each statement, indicate your level of agreement by circling the number that best corresponds to your present teaching behaviors. Also circle the numbers of the statements on the scale that you believe could be interpreted by students as a message to lose weight. The scale ranges from 1-7, with 1 as strongly disagree (SD), 4 as moderately agree (MA), and 7 as strongly agree (SA). If a question does not apply, please leave it blank.

1. I have suggested to specific students that they pursue modern dance because of their size.

1	2	3	4	5	6	7
SD			MA			SA
2. I tell my students to take off any jewelry during ballet class or a performance.

1	2	3	4	5	6	7
SD			MA			SA
3. I place the thinner dancers in front and center in dances.

1	2	3	4	5	6	7
SD			MA			SA
4. I tell my students to work on their turn out.

1	2	3	4	5	6	7
SD			MA			SA
5. I tell my students to hold in their stomach's in class.

1	2	3	4	5	6	7
SD			MA			SA
6. I have an ideally thin ballet body.

1	2	3	4	5	6	7
SD			MA			SA
7. I poke an area of the student's body that needs to be lifted or strengthened.

1	2	3	4	5	6	7
SD			MA			SA
8. I tell my students to put their hair up away from their face.

1	2	3	4	5	6	7
SD			MA			SA
9. I discuss my dieting techniques in front of my students.

1	2	3	4	5	6	7
SD			MA			SA

10. I permit students who are heavier to wear baggy clothing over their leotard.

1	2	3	4	5	6	7
SD			MA			SA

11. I tell my students when they need to buy new pointe shoes.

1	2	3	4	5	6	7
SD			MA			SA

12. I pay more attention to the thinner dancers.

1	2	3	4	5	6	7
SD			MA			SA

13. I praise a noticeable weight loss in my dancers.

1	2	3	4	5	6	7
SD			MA			SA

14. I measure my students for their costume.

1	2	3	4	5	6	7
SD			MA			SA

15. I fail to discourage talk about weight concerns among the dancers.

1	2	3	4	5	6	7
SD			MA			SA

16. I notice if a student has lost weight and mention it to her.

1	2	3	4	5	6	7
SD			MA			SA

17. I comment to a student who appears to be sleepy that they need to get more sleep.

1	2	3	4	5	6	7
SD			MA			SA

18. I place my hands on my students to help them feel the correct body placement.

1	2	3	4	5	6	7
SD			MA			SA

19. I tell my students to stretch their legs.

1	2	3	4	5	6	7
SD			MA			SA

20. I tend to give the thinner dancers more solos.

1	2	3	4	5	6	7
SD			MA			SA

21. I notice if a student gains weight and mention it to her.

1	2	3	4	5	6	7
SD			MA			SA

22. I tell my students to arrive on time for class and rehearsals.

1	2	3	4	5	6	7
SD			MA			SA

23. I tell my students who have larger breasts that they need to wear more support.

1	2	3	4	5	6	7
SD			MA			SA

Have you ever given nutritional advice to your students in the past? If so, what was the advice given? (Also include any weight loss techniques that you have suggested they try, if any, and what those techniques were

If you believe that forms of communication used by the teacher in his/her ballet class could be perceived as weight loss pressures to the students, are there any more forms of communication that were not listed on the questionnaire that could be perceived by students as a message to lose or maintain weight?

Please comment on anything that you feel is related to weight loss pressure in ballet.

Appendix D
Eating Behaviors Scale

Eating Behavior Questionnaire:

A=Always, U=Usually, O=Often, S=Sometimes, R=Rarely, N=Never
(daily) (weekly) (biweekly) (monthly) (yearly)

Please answer the following questions by circling A, U, O, S, R or N. A=Always means that you use the technique on a daily basis, U=Usually means weekly, O=Often means biweekly, S=Sometimes means monthly, R=Rarely means yearly and N=Never. Please answer the questions if you use these techniques for the purpose of losing weight or maintaining weight. Please answer the questions alone, only seek assistance when a question is not clear. If at any time you wish to not complete this questionnaire, please feel free to do so, with no fear of reprisal from the researcher.

1. **A U O S R N** *I drink a lot of coffee.*
2. **A U O S R N** *I smoke cigarettes.*
3. **A U O S R N** *I eat a healthy well balanced diet.*
4. **A U O S R N** *I restrict specific foods (breads, dairy, sweets, meats) in my diet.*
5. **A U O S R N** *I take longer than others to eat my meals so that I will feel full.*
6. **A U O S R N** *I replace meals with candy or chocolate bars.*
7. **A U O S R N** *I restrict foods across all food groups.*
8. **A U O S R N** *I take laxatives.*
9. **A U O S R N** *I make myself throw-up after I eat.*
10. **A U O S R N** *I try to avoid eating too much fast food.*
11. **A U O S R N** *I engage in fad diets.*
12. **A U O S R N** *I take vitamins and/or supplements to make up for the lack of nutrients in my diet because I deny myself food.*
13. **A U O S R N** *I eat the recommended daily allowance of calories.*
14. **A U O S R N** *I take diet pills.*
15. **A U O S R N** *I wear clothes that promote sweating such as rubber pants during exercise or ballet class.*
16. **A U O S R N** *I fast (drink only liquids and deny myself solid food).*
17. **A U O S R N** *I eat foods that are low in fat.*
18. **A U O S R N** *I drink a lot of water or other non-caloric liquids such as diet-soda to fill me up.*

19. A U O S R N *I let others believe that I am eating when in fact I am not, for example:
I bring a bag lunch to school and throw it out.*

20. A U O S R N *I eat cotton balls/paper products (e.g. toilet paper) to fill me up.*

How did you become aware of these particular methods to lose weight or maintain weight? Did anyone suggest you try any of the techniques mentioned above (friends, parents, ballet teachers, magazines, siblings, other)?

Are there any other techniques not mentioned above that you use for the purpose of losing weight or maintaining weight? If so, please list what they are and how you became aware of them.

Comments:

Appendix E
Athletic Image Scale

Athletic Image Scale:

1. Please identify the number of the image that best describes your current physique

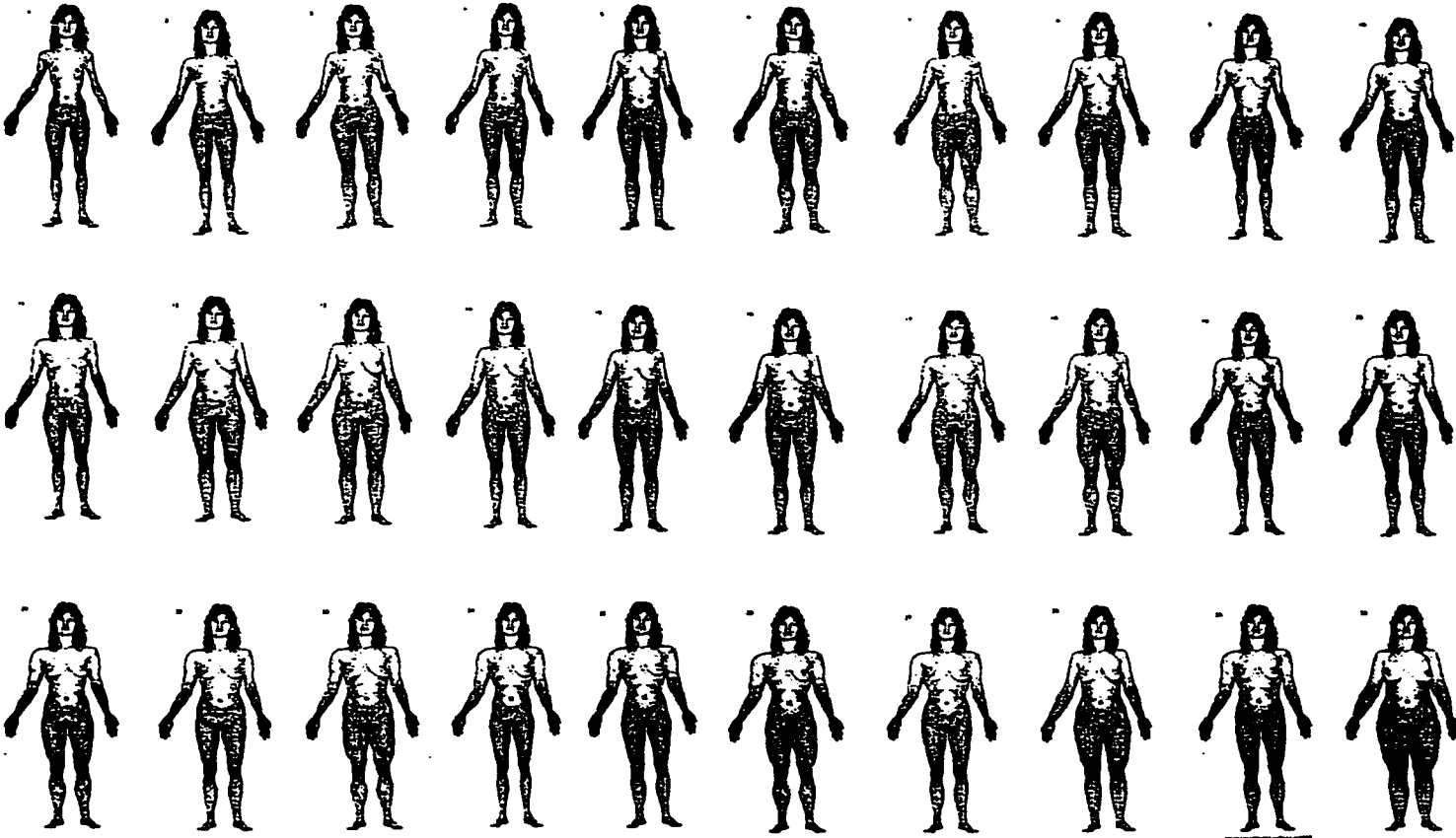
_____.

2. Please identify the number of the image that best describes your desired physique

_____.

3. Please identify the number of the image that best describes your perception of what you think your teacher(s) would like you to look like

_____.



Appendix F

Unhealthy Eating Behaviors Sheet

The dangers of engaging in unhealthy eating practices

If you are malnourished, these are just a few of the side effects you could experience:

- **Fatigue:** You will become lethargic and find it difficult to function throughout the day.
- **Memory loss:** It will become difficult to learn choreography.
- **Injury:** You put yourself at risk for injury and prolonged recovery.
- **Muscle weakness:** It will become difficult to perform demanding steps and combinations that require strength and endurance.
- **Decreased bone density:** Stress fractures can result.

Others: Premature osteoporosis, decreased social interactions, decreased concentration skills, moodiness, loss of coordination, headache, risk of amenorrhea (stoppage of menstruation), diarrhea and hair loss (Kanarek & Marks-Kaufman, 1991).

If you would like further information on the nature of eating patterns, please contact Gina at (613) 237-5852. She can provide you with a referral number for your area.

Appendix G
Information Letter and Consent Form
(Of Age Students)

Information Sheet for Students

Weight Loss Pressures in Ballet: Are Ballet Teachers a Possible Source?

Hello, my name is Gina Bottamini and I am a first year Masters student at the University of Ottawa in the School of Human Kinetics. I am conducting a Masters thesis in the field of sport psychology under the supervision of Dr. Diane Ste-Marie. The completion of the thesis is a necessary requirement for obtaining my Master of Arts degree in the field of Human Kinetics. I am interested in examining issues surrounding whether ballet teachers are a potential pressure for weight loss or maintenance of a low body weight in their students. For example, are ballet students more likely to use unhealthy weight loss techniques if they perceive their teacher as a source of pressure and what behaviors, if any, on the part of the teacher do ballet students perceive to be a weight loss pressure?

Included within this package, are 2 questionnaires, an athletic image scale and a referral sheet. We are asking that you complete the questionnaires and the athletic image scale now. You will be asked to read each of the statements and circle the answer that best corresponds to your opinion regarding weight loss pressures in ballet and your eating patterns on the questionnaires. You will also be asked to circle your perceptions of 1) your actual body image, 2) the body image you would like to be and 3) the image you believes your teacher would like you to be on the athletic image scale.

If at any time you wish to quit and not complete either of the questionnaires or the athletic image scale, you are free to do so, with no fear of reprisal from the researcher. Once the questionnaires and athletic image scale are completed you will give them back directly to the researcher in the envelope that has been provided. Through this method, your anonymity is guaranteed. Also, no one other than myself and the research team will be aware of your responses on the questionnaires and athletic image scale. In fact, we will not be aware of your responses either, because your name is not to be reported directly on any of the questionnaires or athletic image scale. Through these methods, your anonymity is once again guaranteed. This is also to ensure that no potential discomfort could arise between you and any other party, as well as to ensure that your participation is of your own accord. If at any time the data is presented in either written or verbal format, the data will be pooled. This means that no time will your individual answers be reported.

It is important to mention that due to the nature of the study, some of the questions asked of you will be personal in nature. It is your decision as to whether or not you want to participate in this study. If you do decide to participate in the study, completion of the questionnaires and athletic image scale indicate to us that you were a willing and informed participant. As well, I will provide you with a referral sheet in case further information on the nature of eating patterns is desired.

This research is being conducted by the following persons. Feel free to get in touch with either of them if you have any questions

Dr. Diane Ste-Marie
Associate Professor
School of Human Kinetics
University of Ottawa
Phone Number (613) 562-5800 ext 4255

Gina Bottamini
Masters Student
School of Human Kinetics
University of Ottawa
Phone Number (613)237-5852

If you have any further ethical questions concerning the research, you can contact the following person for more information:

Dr. J. Roger Proulx
Chair of the Faculty of Health Sciences Human Research Ethics Committee
University of Ottawa
Phone Number: (613) 562-5800 ext 8055

Thank you for your time and consideration.

Sincerely,

Gina Bottamini

Dr. Diane Ste-Marie

Appendix H
Information Letter and Consent Form
(Under Age Students)

Information and Consent Sheet for Parents

Weight Loss Pressures in Ballet: Are Ballet Teachers a Possible Source?

Hello, my name is Gina Bottamini and I am a first year Masters student at the University of Ottawa in the School of Human Kinetics. I am conducting a Masters thesis in the field of sport psychology under the supervision of Dr. Diane Ste-Marie. The completion of the thesis is a necessary requirement for obtaining my Master of Arts degree in the field of Human Kinetics. I am interested in examining issues surrounding whether ballet teachers are a potential pressure for weight loss or maintenance of a low body weight in their students. For example, are ballet students more likely to use unhealthy weight loss techniques if they perceive their teacher as a source of pressure and what behaviors, if any, on the part of the teacher do ballet students perceive to be a weight loss pressure?

Included within this package, are 2 questionnaires, an athletic image scale and an information sheet on the dangers of engaging in unhealthy eating practices. We are asking that you provide consent to allow your son or daughter to volunteer to complete the questionnaires and the athletic image scale at the beginning of a selected ballet class. She/he will be asked to read each of the statements and circle the answer that best corresponds to her/his opinion regarding weight loss pressures in ballet and her/his eating patterns on the questionnaires. She/he will also be asked to circle her/his perception of 1) her/his actual body image, 2) the body image she/he would like to be and 3) the image she/he believes her/his teacher would like her/him to be on the athletic image scale. The researcher will be present if she/he needs clarification of a question. If at any time she/he wishes to quit and not complete either of the questionnaires or the athletic image scale, she/he is free to do so, with no fear of reprisal from the researcher.

Once completed, the questionnaires and athletic image scale will be given back directly to the researcher in an envelope that will be provided. Through this method, your daughter's or son's anonymity is guaranteed. Also, no one other than myself and the research team will be aware of your daughter's or son's responses on the questionnaires and athletic image scale. In fact, we will not be aware of your daughter's or son's responses either, because her/his name is not to be reported directly on any of the questionnaires or athletic image scale. Through these methods, your daughter's or son's anonymity is once again guaranteed. This is also to ensure that no potential discomfort could arise between your daughter or son and any other party, as well as to ensure that your daughter's or son's participation is of her/his own accord. If at any time the data is presented in either written or verbal format, the data will be pooled. This means that no time will her/his individual answers be reported.

It is important to mention that due to the nature of the study, some of the questions asked of your daughter or son will be personal in nature. It is your decision as to whether or not you want your daughter or son to participate in this study. If you do decide to permit her/him to participate in the study, sign this form and return it immediately to the ballet school at the time of your daughters/sons next ballet class. These will be collected on the day of the selected ballet class in which the study will be conducted. Receipt of the consent form indicate to us that you are willing to allow your daughter or son to participate. If you decide that you do not want your daughter or son to participate, please circle no to the statement below and return the consent form at the time of your daughter/sons next ballet class. After your daughter or son has completed the questionnaires and athletic image scale, please review the information sheet on the dangers of engaging in unhealthy eating practices with them.

This research is being conducted by the following persons. Feel free to get in touch with either of them if you have any questions

Dr. Diane Ste-Marie
Associate Professor
School of Human Kinetics
University of Ottawa
Phone Number (613) 562-5800 ext 4255

Gina Bottamini
Masters Student
School of Human Kinetics
University of Ottawa
Phone Number (613) 237-5852

If you have any further ethical questions concerning the research, you can contact the following person for more information:

Dr. J. Roger Proulx
Chair of the Faculty of Health Sciences Human Research Ethics Committee
University of Ottawa
Phone Number: (613) 562-5800 ext 8055

Thank you for you time and consideration.

Sincerely,

Dr. Diane Ste-Marie

Gina Bottamini

I permit my child to participate in the study (*circle one*): YES NO

I _____ (print parent's name) will allow my child

_____ (print child's name) to complete the questionnaire.

Parent's Signature _____ Date: _____

Appendix I

Teachers Information Sheet

Information Sheet for Ballet Teachers

Weight Loss Pressures in Ballet: Are Ballet Teachers a Possible Source?

Hello, my name is Gina Bottamini and I am a first year Masters student at the University of Ottawa in the School of Human Kinetics. I am conducting a Masters thesis in the field of sport psychology under the supervision of Dr. Diane Ste-Marie. The completion of the thesis is a necessary requirement for obtaining my Master of Arts degree in the field of Human Kinetics. I am interested in examining whether ballet teachers are a potential pressure for weight loss or maintenance of a low body weight in their students. For example, are ballet students more likely to use unhealthy weight loss techniques if they perceive their teacher as a source of pressure and what behaviors, if any, on the part of the teacher do ballet students perceive to be a weight loss pressure?

Included within this package is a questionnaire. Please look over the questionnaire and decide if you want to participate in the study. You will be asked to read each of the statements and circle the answer that best corresponds to your opinion regarding the verbal and nonverbal forms of communication you may use when teaching ballet students. If you do not wish to complete the questionnaire, feel free to do so with no fear of reprisal from the researcher. Once completed, the questionnaire can be returned to the researcher in the envelope that has been provided. Through this method, your anonymity is guaranteed. Also, no one other than myself and the research team will be aware of your responses either, because your name is not to be reported directly on the questionnaire. Through these methods, your anonymity is once again guaranteed. This is also to ensure that no potential discomfort could arise between you and any other party. If at any time the data is presented in either written or verbal format, the data will be pooled. This means that at no time will your individual answers be reported.

It is important to mention that due to the nature of the study, some of the questions asked of you will be personal in nature. It is your decision to whether or not you want to participate in this study. Receiving a completed questionnaire will indicate to us that you are a willing participant.

The research is being conducted by the following persons. Feel free to get in touch with either of them if you have any questions.

Dr. Diane Ste-Marie
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Thank you for your time and consideration.

Sincerely,

Giya Bottamini

Dr. Diane Ste-Marie

Appendix J

Ethics Approval



Université d'Ottawa - University of Ottawa

Faculté des sciences de la santé
Cabinet de la doyenne

Faculty of Health Sciences
Office of the Dean

CERTIFICATION OF INSTITUTIONAL HUMAN RESEARCH ETHICS COMMITTEE FACULTY OF HEALTH SCIENCES

This is to certify that the Institutional Human Research Ethics Review Committee of the Faculty of Health Sciences has examined the research proposal from **Professor Diane Ste-Marie and Student Gina Bottamini** from the School of Human Kinetics for the project "*Weight Loss Pressures in Ballet: Are Ballet Teachers a Possible Source*" and concludes that, in all respects, the proposed research protocol meets the appropriate standards of ethical acceptability, at a **Category 1A** level.

MEMBERS OF THE COMMITTEE

<u>Name (Optional)</u>	<u>Position held</u>	<u>Department of discipline</u>
Victor Boucher	Professor	Audiology and Speech-Pathology Program
François Tremblay	Professor	Physiotherapy Program
Claire-Jehanne Dubouloz	Professor	Occupational Therapy Program
Jocelyne Tourigny	Professor	School of Nursing
Rock Paquin	Member-at-Large	
Pierre Boudreau	Professor	Faculty of Education
J. Roger Proulx	Chair	Human Research Ethics Committee School of Human Kinetics
Nicole Denis	Student	School of Nursing

SIGNATURE

1999/05/04

Date

Committee Chairperson - J. Roger Proulx, Ph.D.

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