Spring 2021

The Psychology of Dance Medicine: Self-Perception of Dancers

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THE PSYCHOLOGY OF DANCE MEDICINE: SELF-PERCEPTION OF DANCERS

By

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Submitted in Partial Fulfillment
of the Requirements for
Graduation with Honors from the
South Carolina Honors College

May, 2022

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THESIS SUMMARY

Dance medicine is a growing medical field. Derived from sports medicine, dance medicine is a subcategory that focuses on the health and well-being of dancers on a scientific and medical level. Dancers are considered "elite" athletes and artists, which requires this specific niche of medicine to study the injuries and other health-related issues that develop as a result of dancers' unique movement. Studies show that in addition to physical injuries, dancers are susceptible to mental health issues that should be addressed. There are many factors of the dance environment, such as the instructor, peers, and mirrors, that alter the self-perception of dancers. Due to dancers being required to train in a specific dance environment, they may develop feelings of negative perfectionism and body dissatisfaction, which can lead to eating disorders. Students in the Dance Department at the University of South Carolina – Columbia were surveyed to determine whether these student dancers' responses align with research from past studies. The online survey was composed of four sections, which included statements from the Hewitt-Flett Multidimensional Perfectionism Scale, the EAT-26, and two sections with newly written statements from the researcher regarding the dance environment and comparing the studio to dancing at home due to the COVID-19 pandemic. The results of the survey were as expected for the sections regarding perfectionism and eating behaviors. However, responses to the dance environment statements were the opposite of what was found in past research. They suggest that the faculty at the university's dance department are doing something right due to the fact that students do not attribute their feelings of perfectionism or body dissatisfaction to the dance environment. While further research needs to be conducted to assess whether the dance environment is the cause of altered self-perception in dancers, the survey results regarding perfectionism and eating behaviors are still concerning. More research needs to be conducted on

why dancers are more likely to have negative perfectionism and develop eating disorders. Researchers should continue to study the implications of the dance environment and push for implementing educational programs and interventions during the dance training process to prevent these feelings and behaviors from developing.

INTRODUCTION

Dance is a beautiful and freeing form of art. Thus, dancers are commonly perceived as graceful, elegant, confident, and precise. They spend hours upon hours in the studio perfecting their craft, and often begin training at a young age. While being a dancer allows one to express themselves and stay fit, there are some consequences. Being in a competitive dance environment can take a toll on one's mental health. From teachers to peers to mirrors, all of these factors play a role in the psychological aspect of being a dancer. While in the studio, dancers are constantly observed by the instructor, surrounded by other dancers, and placed in front of a mirror. This setting facilitates dancers to perceive themselves in a certain way, oftentimes with a biased perspective leading to negative perfectionism and unhealthy eating behaviors. This literature review will highlight three components of the dance environment, perfectionism, and eating behaviors in regard to the self-perception of dancers.

DANCE ENVIRONMENT

It is assumed that anxiety and perfectionism in dancers is related to various negative factors of well-being such as lower body satisfaction, lower self-esteem, poorer mood, excessive self-criticism, and higher levels of stress. Various research has been conducted to investigate the growing theory that the classroom environment, or social psychological climate, of dance studios is to blame for these negative characteristics. To test this theory, a study was conducted to "examine the relationship between perceptions of the social psychological climate (task-involving, ego-involving, and caring) and aspects of psychological well-being (affect, body-esteem, and friendship) in late adolescent studio dancers" (Stark & Newton, 2014). Ego-involving climates focus on comparing oneself to others, task-involving climates focus on progression without comparison, and caring climates refer to when participants feel valued and

respected. The participants of this study were split into those in a Positive Climate (low perceptions of ego-involving climate and high perceptions of task-involving and caring climates) and a Mixed Climate (increased perceptions of ego-involving climate and decreased perceptions of task-involving and caring climates). The results showed that "dancers in the Positive Climate cluster self-reported greater body esteem, more friends, and less negative affect than dancers in the Mixed Climate cluster", proving that the dance environment does have an effect on mental health and self-perception (Stark & Newton, 2014).

To further examine this theory, Thompson & Sherman state that when research is done on athletes and eating disorders it is important to note that "sport and sport participation are not the problem, and should not be avoided. Rather, the risks in the sport environment are the problem and need to be identified, treated, and hopefully prevented or eliminated" (2014). This research points out the many external factors of sport environment that result in self-perception that may lead to perfectionism and certain eating attitudes and behaviors. General conceptions of athletes with disordered eating are "pushing themselves to the limit, doing anything to gain approval of coaches and teammates, becoming preoccupied and obsessed with their body's shape and size, and engaging in unhealthy approaches to eating and exercise" (Thompson & Sherman, 2014). Research has found that "coaches can play an important role in identifying eating problems in their athletes" (Thompson & Sherman, 2014). They state that more attention needs to be focused on educating coaches and teachers because most of the time "if performance has not decreased and the athlete is not noticeably underweight, coaches are less apt to identify a problem" (Thompson & Sherman, 2014). Another area of social pressure comes from teammates, who "might not only model disordered eating but encourage it as well" (Thompson & Sherman, 2014). These external factors were also studied by Dantas et al. Their study

highlights key factors associated with body dissatisfaction that come from comments made by dance students, who also took two tests: the Body Shape Questionnaire (BSQ) and the Eating Attitudes Test-26 (EAT-26) (2018). The study split the factors into three categories--contextual (mirror, uniform, institution, teacher), interpersonal (peers, comparison, interpretation of dance culture), and personal (association of positions/movements to body image, association of technical mistakes to body weight), with the three most common factors being teachers, uniforms, and mirrors (Dantas et al., 2018). By identifying aspects of the dance environment that contribute to disordered eating, more research can be done on each factor individually to explore the resulting effect on dancers.

A more specific study done by Hancox et al. that examined the teacher-created social environment and how it affects dancers' affective states during class (2017). Dancers work with instructors for hours on end, making it easy for dancers' thoughts to be influenced by the words, attitudes, and behaviors of people with authority. The results found that "when dance teachers promote self-initiated strivings, individual-referenced ability, and create a caring environment in class, this fosters dancers' autonomy competence and relatedness during lessons", which leads to positive emotions (Hancox et al., 2017). On the contrary, "dancers who perceive their teacher to exhibit controlling behaviors and stress normative comparisons in class are more likely to perceive their basic needs as being obstructed and actively undermined" which leads to negative emotions (Hancox et al., 2017). Along with instructors, dancers are also constantly surrounded by their peers, who are another factor of the dance environment that affect self-perception. A study conducted by Scott et al. examined the influence of teammates on disordered eating in athletes (2019). The study found that teammates were a positive influence in three aspects: "(1) the promotion of healthy eating practices; (2) adopting specific practices to address disordered

eating behaviours in fellow team members; and (3) supportive teammate friendships" (Scott et al., 2019). However, there are also four negative aspects of teammate pressure: "(1) conflicting teammate friendships, (2) critical comments and appearance conversations, (3) maladaptive team norms, and (4) competitive comparisons with teammates" (Scott et al., 2019). Additionally, the study showed that "beliefs that teammates were engaged in pathological eating behaviors were linked to increased disordered eating attitude and behaviors" (Scott et al., 2019). This suggests that pressure from teammates can cause some to believe that disordered eating habits are the norm despite whether or not that is true. Along with this, the highly competitive environments of some sports can facilitate comparison among athletes and what is known as "competitive thinness" (Scott et al., 2019). Negative comments made by teammates about weight loss and appearance were also identified as risk factors, proving that the self-perception of dancers is highly influenced by their own perceptions of what people around them think.

While in the studio, regardless of the presence of instructors and peers, dancers have been observed to constantly look at themselves in the mirror. Radell et al. investigated the effect of teaching with mirrors on the body image and dance performance of female college ballet dancers (2004). The theory behind the study of mirrors is that one's reflection causes a state of heightened self-awareness. For some dancers, this serves as a tool that exposes technical errors and is crucial for their performance. For others, the image of their body is a distraction from their performance. Research shows that the effect of mirrors depends on various factors, such as performance skill level, years of experience, and difficulty of material taught (Radell et al., 2004). The study conducted by Radell et al. explores the relationship between these factors. The results show that there are differences between low performing and high performing students. For low performing students, the use of mirrors resulted in greater satisfaction with overall

appearance while absence of the mirror resulted in increased overweight preoccupation (Radell et al., 2004). High performing dancers in the non-mirrored class had significantly increased scores of body satisfaction while the mirrored class did not (Radell et al., 2004). This difference between high and low performing students suggests that low performing students use the mirror to correct technical errors and improve their performance while high performing students use mirrors to critique their physical appearance and compare themselves to others (Radell et al., 2004). Veale and Riley studied mirrors in a different way. Research shows that patients with Body Dysmorphic Disorder (BDD) have the tendency to mirror gaze, which is the act of spending hours in front of a mirror looking at their reflection (Veale & Riley, 2001). This stems from a desire to know exactly how they look. Studies have found that mirror gazing "increases self-consciousness and selective attention, and may magnify the patient's perception of their perceived defects" (Veale & Riley, 2001). Focusing on their reflection in the mirror for too long distorts their judgement. This study was done to examine patients' beliefs and behaviors in front of a mirror. The results found that the patients were "more likely to focus their attention on an internal impression or feeling rather than their external reflection in the mirror" and felt significantly worse afterwards (Veale & Riley, 2001). This "internal impression or feeling" is the same negative self-perception that dancers experience when they engage with instructors and peers in the dance environment, as shown in the studies by Hancox et al. and Scott et al.

PERFECTIONISM

Various research indicates that perfectionism is a psychological response to self-perception. Due to the nature of the dance environment, many dancers are associated with experiencing perfectionism to a certain extent. There are three different approaches to assessing perfection that are used by researchers. The first is an independent effects approach which

examines perfectionistic strivings (PS) and perfectionistic concerns (PC). PS are associated with personal standards of performance while PC are associated with mistakes, judgement and expectations from society, and negative reactions to imperfection (Hill & Madigan, 2017). The independent effects approach showed that PC was more consistent with maladaptive consequences, such as anxiety, burnout, and amotivation while PS was consistent with both adaptive consequences, such as performance and engagement, as well as maladaptive consequences. With this approach, dancers are often associated with PC more than PS.

The second approach is the tripartite model. This approach suggests that there are three types of perfectionists and views perfectionism as a personality trait (Hill & Madigan, 2017). The three types described are healthy perfectionists with high PS/low PC, unhealthy perfectionists with high PS/high PC, and non-perfectionists with low PS/low or high PC. In the tripartite model, dancers are associated with unhealthy perfectionists or non-perfectionists.

The third and most supported approach is the 2x2 model. Unlike the tripartite model which suggests that there are different types of perfectionists as people, this 2x2 model assumes that perfectionism exists to some degree in everyone. The four combinations in this method are low PS/low PC (non-perfectionism), high PS/low PC (pure personal standards perfectionism), low PS/high PC (pure evaluative concerns perfectionism), and high PS/high PC (mixed perfectionism). The order of most to least problematic subtype of perfectionism according to this study is pure ECP, mixed perfectionism, non-perfectionism, and pure PSP (Hill & Madigan, 2017). In the 2x2 model, dancers often fall under pure ECP or mixed perfectionism, which has implications for being problematic in terms of mental health and body dissatisfaction (Eusanio et al., 2014).

When studying the relationship between perfectionism and self-perception, it is important to consider the effects on mental health. Researchers do this by making a distinction between positive and negative perfectionism. Positive perfectionism is defined as having high personal standards while negative perfectionism is related to worries about mistakes, uncertainty, and the fear of others' judgements (Geranmayepour & Besharat, 2010). The main goal of Geranmayepour and Besharat was to show how negative and positive perfectionism relate differently to psychological well-being and distress (2010). The results showed that "there is a positive correlation between positive perfectionism and psychological well-being and a negative correlation between positive perfectionism and psychological distress" (Geranmayepour & Besharat, 2010). Positive perfectionism enables one to have realistic goals, acknowledge their limitations, and enjoy the results of their effort, which creates a feeling of satisfaction. Meanwhile, negative perfectionism had the opposite result. It increases one's worries and decreases or weakens self-esteem and self-confidence (Geranmayepour & Besharat, 2010). As dancers tend to have more negative perfectionism than positive, they experience more psychological distress resulting in lower self-esteem (Eusanio et al., 2014). To support this, Ghahramani et al. conducted a related study to examine the relationship between perfectionism and self-esteem in athletes (2011). They found that positive perfectionism allows individuals to accept their realistic personal and environmental limits which results in experiencing success and an increase in self-esteem (Ghahramani et al., 2011). Negative perfectionism is determined through unrealistic personal standards and dissatisfaction from continuous criticism, which results in increased perception of failure (Ghahramani et al., 2011). While perfectionism is not inherently "bad", dancers with negative perfectionism can greatly damage their mental health due to constant self-criticism and dissatisfaction (Ghahramani et al., 2011).

Perfectionism in athletes can also be seen due to the nature of the competitive environment they are put in. The aim of a study conducted by Hamidi and Besharat was to examine the relationship between perfectionism and competitive anxiety (2010). Cognitive anxiety, somatic anxiety, and self-confidence are three dimensions of competitive anxiety. Cognitive anxiety involves thoughts about possible failure while somatic anxiety involves physical symptoms and heightened negative arousal. Self-confidence involves positive thoughts about one's performance. The two dimensions of perfectionism described are positive striving perfectionism, which involves personal standards, and self-critical perfectionism, which involves negative self-evaluations of one's performance, concern over mistakes, and fear of others' approval (Hamidi & Besharat, 2010). The results were that "athletes' striving for perfection (positive perfectionism) was negatively correlated to their cognitive and somatic anxieties and positively to their self-confidence" (Hamidi & Besharat, 2010). Negative reaction to imperfection (negative perfectionism) had the opposite result. These findings mean that positive perfectionism results in feelings of satisfaction and reduces competitive anxiety whereas negative perfectionism weakens' athletes feeling of self-competence and self-worth resulting in high levels of competitive anxiety (Hamidi & Besharat, 2010). When dancers develop negative perfectionism, competition anxiety will worsen their mental health on top of what is already implicated by having pure ECP or mixed perfectionism.

While exercising and being an athlete has its benefits, exercising for appearance-related reasons is associated with low self-esteem and high anxiety (Madigan et al., 2017). Compulsive exercise due to weight control and perfectionistic concerns are consistently associated with disordered eating. While the risk of developing eating disorders (ED) in dancers is well known, the involvement in dance alone does not explain this risk. Many studies have shown that dancers

tend to have higher levels of perfectionism, which may be a factor in ED. A study by Penniment & Egan suggests that it is the learning experiences during dance classes concerning thinness or restricting food that predict disordered eating (2011). The aim of this study was to analyze perfectionism, thinness related learning (TRL), and thinness and restricting expectancies (TRE) as risk factors for eating disorders in dancers. The results show that the relationship between perfectionism and ED is reinforced by TRL. "Dancers who reported higher perfectionism perceived greater TRL in their dance classes compared to dancers with lower perfectionism" (Penniment & Egan, 2011). Furthermore, dancers who reported high perfectionism and TRL experiences had more ED symptoms. Lastly, those with high perfectionism and greater TRL experiences were also more likely to have higher TREs. These findings suggest that "women with elevated perfectionism are at a particular risk when participating in dance class in regards to developing expectations of the benefits of restriction of food as a result of learning in regards to thinness" (Penniment & Egan, 2011). In other words, dancers with high perfectionism are at risk for developing TRE as a result of TRL in classroom environments. The combination of those factors is what puts dancers at such a high risk for ED.

EATING BEHAVIORS

Many studies have shown the relationship between body dissatisfaction and unhealthy eating behaviors, such as dieting and vomiting, that are aimed at improving one's physical appearance (Dantas et al., 2018). These unhealthy behaviors combined with significant weight loss may result in the diagnosis of an eating disorder (ED). This behavior is especially prevalent in the dance community, with dancers being three times more likely to suffer from an ED than the average person (Dantas et al., 2018). It is widely accepted that dancers are often concerned about their body image and strive for thinness, but there are many factors relating to self-

perception that explain why. Body image can be separated into two themes: body perception and body satisfaction (Danis et al., 2016). Perception is how an individual assesses the physical aspects of their body. Satisfaction focuses on body size and shape as it relates to one's confidence. The desire to have a "perfect" body can result in negative perceptions of one's body and lead to low self-esteem and disordered eating. One study was conducted to determine how dancers perceive their bodies, particularly in urban environmental settings, regarding BMI and satisfaction with one's body image (Danis et al., 2016). The results showed that more than half of the dancers interviewed had a positive perception of body image. Despite this, more than half of the dancers were still dissatisfied with their appearance though they have an ideal body weight (Danis et al., 2016). This dissatisfaction with one's body regardless of weight can trigger negative eating attitudes and behaviors. Research suggests that weight perception plays an important role in the development of eating disorders. "Incorrect weight perceptions are more common in young women, with persistent overestimation of weight and attempts at weight loss even when unnecessary" (Haase, 2011). Haase created a study to examine the correlation between disordered eating (defined as perfectionism and social physique anxiety (SPA)) and perception of weight. "This study demonstrated that female athletes perceiving themselves to be overweight experienced higher negative perfectionism, greater SPA and more disordered eating" (Haase, 2011). However, it is important to note that athletes that perceived themselves as overweight were not actually overweight with respect to BMI, which is consistent with the findings of Danis et al.

Some research has found that the main reason elite athletes are motivated to lose weight is the belief that it will enhance their performance, suggesting a link between performance anxiety and disordered eating. (Durme et al., 2012). The objectives of the study by Durme et al.

were to examine “whether eating pathology is prevalent in aesthetic adolescent athletes”, particularly figure skaters and ballet dancers, and whether sports-related factors, such as competition anxiety and hours of training per week, explain their dieting behavior (2012). The results of the study show that the female athletes had a “higher drive for thinness, more features of bulimia, more dieting behavior, and more concerns about their weight and body shape compared to female adolescents of the general population” (Durme et al., 2012). A different study by Özgen and Kısaç found similar results, stating that symptoms of eating disorders are common in athletes and dancers who strive for thinness, leanness, weight control and perfectionism (2009). They specified that ballet dancers in particular are a high-risk group for disordered eating. The study focused on anorexia nervosa and found that its prevalence was found to be “3 to 6 times higher among ballet dancers than in the general population” (Özgen & Kısaç, 2009). With statistics like these, the aim of this study was to investigate the drive for thinness, bulimia and body dissatisfaction in Turkish ballet dancers with respect to BMI and gender. The results showed that body dissatisfaction was prevalent across the board. However, female ballerinas were more concerned about their body shape than male ballet dancers as a result of a “higher drive for thinness and more avoid of bulimia” (Özgen & Kısaç, 2009). Female dancers tend to focus on dieting, are afraid to gain weight, and often feel guilty after eating. They also have a general desire to be thinner and often have thoughts about vomiting in order to lose weight (Özgen & Kısaç, 2009). A study done by Papathomas and Lavallee corroborate these findings. In regard to eating disorders, they found that “athletes considered most vulnerable are elite females participating in “lean sports”, such as figure skating and gymnastics, where the focus on weight and thinness is particularly overt” (Papathomas & Lavallee, 2014). In order to better understand the reason behind disordered eating in athletes, a case study was conducted to

describe one person's experience in depth. A 20-year old undergraduate student described two aspects of disordered eating behaviors: performance narrative and the notion of "achieving" self-starvation. The performance narrative aspect involves "striving to meet the expectations of others", such as her teachers, coaches, teammates, and family (Papathomas & Lavallee, 2014). The achievement of self-starvation stems from the belief that skipping meals would help her perform better. With the pressures of sports, she described her eating behaviors as becoming "'less about trying to be better and fitter and just a rhythm I got into'" (Papathomas & Lavallee, 2014). If she felt as though she was not living up to the performance narrative aspect, she would use self-starvation as a punishment and said she would feel guilty if she ate. It was seen as an achievement if she could go through a whole day skipping meals (Papathomas & Lavallee, 2014). This case study supports the theory that the dance environment is to blame for the pipeline to perfectionism and eating disorders.

CONCLUSION

The nature of the dance environment, which includes teachers, peers, and mirrors in the studio, puts dancers at risk for developing negative perfectionism and disordered eating. Negative perfectionism was found to have a negative effect on mental health by increasing anxiety and decreasing self-esteem. Due to self-criticism and dissatisfaction of performance and body image, perfectionism is a risk factor for disordered eating. Dancers with high perfectionism are at a greater risk for developing thinness related expectancies as a result of thinness related learning in classroom environments.

The mental health of many athletes is overlooked and brushed off as inevitable. However, the consequences associated with perfectionism, such as depression, anxiety, mood disorders, and eating disorders, should be alarming and raise questions. Dancers should not have to

compromise their mental and physical well-being to partake in an activity that they have the talent for and are passionate about simply because no one has taken the time to properly intervene. It is often observed that dancers use their art as a form of escapism from stressors they may be experiencing in other aspects of their lives. This is not effective if dancers are spending time in an environment that is fostering negative perfectionism. Depression, anxiety, mood disorders, and eating disorders are all illnesses that, if gone untreated, can have devastating effects. It is not acceptable that dancers go through rigorous training with no programs in place to buffer the effects of the training environment on self-perception.

As a possible method to combat risks for developing negative perfectionism and disordered eating, preventative measures should be taken as early as possible when training. Dancers should be educated at a young age about self-confidence, body positivity, and healthy eating habits. Some suggestions based on the findings of previously mentioned studies include specific programs to be put in place for the sole purpose of educating young dancers. Additional programs should also be utilized by dance instructors so that they may learn to create positive spaces in their dance studios. The factors of the dance environment that may contribute to negative perfectionism and disordered eating cannot be eliminated. As a result, dancers and instructors must find a way to change the negative connotations with the environment. When instructors are properly educated about how the studio could potentially be a toxic environment for dancers, they can set a precedent for what the environment in their studio should be. They can encourage positive eating habits, discourage comparisons between students, shut down conversations about body image or weight, and remind dancers that the mirror is there to help with technique and nothing more. This change begins with educating young dancers about their bodies but will only last when those in charge facilitate positive environments. The aim of the

following study is to examine dancers' feelings of perfectionism, body image, and eating behaviors at the University of South Carolina - Columbia and compare them to trends found in this research of athletes and dancers.

SURVEY

ABSTRACT

The aim of this study is to explore student dancers' perceptions of themselves in regard to perfectionism, body image, and the dance environment. The literature states that due to the dance environment, dancers are more likely to develop negative perfectionism are therefore more susceptible to negative eating behaviors and eating disorders (Dantas et al., 2018; Ghahramani et al., 2011; Hamidi & Besharat, 2010; Penniment & Egan, 2011; Thompson & Sherman, 2014). An anonymous survey was sent out to female-identifying, college-aged students in the Dance Department at the University of South Carolina, most of whom come from a strong ballet background. The results were analyzed by isolating the statements with the strongest and most relevant responses from each section and comparing them to findings from past research. The survey results matched the research done prior to this study in regard to having strong responses to perfectionism, eating behaviors, and mirrors. However, dancers from this university do not attribute their own feelings of perfectionism or eating attitudes to the dance environment. These results show the need for more research surrounding the dance environment and the implementation of programs and early education to lower dancers' feelings of negative perfectionism and unhealthy eating habits.

INTRODUCTION

Studies show that dancers and other elite athletes are more susceptible to mental health issues, specifically feelings of negative perfectionism and unhealthy eating behaviors. A study done by Geranmayepour and Besharat was conducted to illustrate how negative and positive perfectionism relate differently to psychological well-being and distress (2010). The results demonstrated that "there is a positive correlation between positive perfectionism and

psychological well-being and a negative correlation between positive perfectionism and psychological distress" (Geranmayepour & Besharat, 2010). Positive perfectionism enables one to have realistic goals, acknowledge their limitations, and enjoy the results of their effort, which creates a feeling of satisfaction. Meanwhile, negative perfectionism had the opposite result. It increases one's worries and decreases or weakens self-esteem and self-confidence (Geranmayepour & Besharat, 2010). Other research by Ghahramani et al. and Hamidi and Besharat were conducted to further study the effects of negative perfectionism. Ghahramani et al. found that negative perfectionism can greatly damage the mental health of dancers due to constant self-criticism and dissatisfaction, whether it be of performance or body image (2011). Hamidi and Besharat found that competitive anxiety is a key factor that explains why dancers have weak feelings of self-competence and self-worth (2010). The correlation between negative perfectionism and eating disorders comes from findings by Penniment & Egan. They suggested that disordered eating is predicted by learning experiences during dance classes concerning thinness and restricting food. Their study analyzed perfectionism, thinness related learning (TRL), and thinness and restricting expectancies (TRE) as risk factors for eating disorders in dancers. Their findings show that dancers with high perfectionism are at risk for developing TRE as a result of TRL in classroom environments, and the combination of those factors is what puts dancers at an elevated risk for eating disorders (Penniment & Egan, 2011). In order to demonstrate why dancers were developing negative perfectionism and unhealthy eating behaviors to begin with, researchers Thompson and Sherman took after Penniment and Egan by suggesting that "the risks in the sport environment are the problem and need to be identified, treated, and hopefully prevented or eliminated" (2014). A study done by Dantas et al. found that instructors, peers, and mirrors were factors of the dance environment that most correlated with

negative perfectionism and eating disorders (2018). The purpose of the current survey is to determine whether perfectionism and disordered eating attitudes are present in the student dance population of the University of South Carolina – Columbia, and whether dancers think their self-perception is altered due to the nature of the dance environment.

METHODS

An anonymous survey was created online and administered via email to all students in the Dance Department at the University of South Carolina - Columbia. The Dance Department is a highly competitive major, with an audition-only process. Most dancers in this program come from strong ballet backgrounds. Once accepted, they undergo a rigorous course schedule, spending an average of five hours a day in the dance classroom. Most students take ballet technique four days a week, contemporary twice a week, and participate in daily rehearsals for upcoming performances. There were 31 respondents to the survey in total, all of whom are female-identifying, college-aged students (typically 18 - 22 years old). The survey consisted of four sections, with each section containing 8 – 22 statements. Respondents were asked to read each statement and decide whether they agree or disagree and to what extent. The choices were strongly disagree, disagree, somewhat disagree, somewhat agree, agree, and strongly agree. The first section included statements regarding perfectionism from the Hewitt-Flett Multidimensional Perfectionism Scale. The second section included statements regarding eating behavior from the EAT-26. The third and fourth section included newly written statements regarding the dance environment and comparing the studio to dancing at home, respectively. At the time of the survey, students were in-person at the university. Survey results reflect a comparison to previous experience at home due to the COVID-19 pandemic. The last two sections were added to examine whether the responses from the first two sections could be attributed to the dance

environment. The results were analyzed by isolating the statements with the strongest and most relevant responses from each section and comparing them to findings from past research.

RESULTS

The following four tables display the results from the survey. The responses from each section were analyzed to isolate the statements that either contradict or corroborate previous research the most. Figure 1 displays the student dancers' responses to statements regarding perfectionism. Participants responded very strongly to these statements including aiming for perfection, having high expectations, and having high standards, showing that they have perfectionistic tendencies, as expected. The responses to Figure 2 regarding eating behaviors were not as uniform. They agreed to feeling terrified of being overweight, thinking about burning calories while exercising, and displaying self-control around food – all of which point to unhealthy eating attitudes. However, statements with stronger wording like feeling guilty and avoiding eating had more disagreeing responses. The most varied result was in response to having a desire to be thinner, which had a 60/40 split leaning towards agreeing. In regard to the dance environment in Figure 3, dancers disagreed with any statements referring to teachers talking about weight, criticizing looks, or comparing students. Despite this, dancers still tend to compare themselves to their peers and find that discussions revolving weight and body satisfaction still occur within students. Figure 3 also reveals dancers' feelings about mirrors. While more than 90% of students believe that mirrors are necessary and many students enjoy dancing in front of them, dancers also reported feeling self-conscious and comparing themselves to peers in the mirror. This in turn causes dancers to constantly think about the way they look while dancing. Figure 4 had the most mixed and contradictory responses out of all four sections. While the majority of respondents enjoy dancing without a mirror and feel less self-conscious at

home, they feel more comfortable, free, and at ease in the studio or classroom. It is important to note that the pre-occupation with food did not change while being at home, showing that these feelings are deeper than just being in the dance environment and surrounded by their peers.

Figure 1: Relevant responses from Q1 (Perfectionism)

Statement	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
When I am working on something, I cannot relax until it is perfect	0.00%	0.00%	12.90%	38.71%	41.94%	6.45%
I never aim for perfection on my work	41.94%	41.94%	3.23%	6.45%	0.00%	6.45%
I have high expectations for the people who are important to me	3.23%	3.23%	12.90%	35.48%	19.35%	25.81%
The better I do, the better I am expected to do	0.00%	0.00%	6.45%	9.68%	38.71%	45.16%
I set very high standards for myself	0.00%	0.00%	0.00%	6.45%	12.90%	80.65%
I must always be successful at school or work	3.23%	3.23%	3.23%	6.45%	38.71%	45.16%

Figure 2: Relevant responses from Q2 (Eating Behaviors)

Statement	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I am terrified about being overweight.	0.00%	10.34%	10.34%	13.79%	24.14%	41.38%
I avoid eating when I am hungry.	13.79%	37.93%	10.34%	20.69%	13.79%	3.45%
I feel extremely guilty after eating.	13.79%	34.48%	13.79%	24.14%	3.45%	10.34%
I am preoccupied with a desire to be thinner.	3.45%	24.14%	13.79%	31.03%	13.79%	13.79%
I think about burning up calories when I exercise.	0.00%	24.14%	6.90%	17.24%	24.14%	27.59%
I display self-control around food.	0.00%	3.45%	20.69%	34.48%	37.93%	3.45%

Figure 3: Relevant responses from Q3 (Dance Environment)

Statement	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
My teacher encourages positive body perception.	0.00%	0.00%	7.14%	14.29%	35.71%	42.86%
My teacher encourages healthy eating habits.	0.00%	0.00%	3.57%	7.14%	35.71%	53.57%
My teacher compares me to my peers.	17.86%	35.71%	14.29%	17.86%	3.57%	10.71%
My teacher criticizes the way I look.	35.71%	35.71%	14.29%	7.14%	7.14%	0.00%
My teacher mentions weight in the classroom.	32.14%	39.29%	21.43%	3.57%	3.57%	0.00%
My peers talk about weight affecting performance.	3.57%	17.86%	14.29%	32.14%	14.29%	17.86%
My peers discuss body satisfaction.	0.00%	3.57%	0.00%	35.71%	42.86%	17.86%
I compare myself to my peers.	0.00%	0.00%	7.14%	25.00%	39.29%	28.57%
I enjoy dancing in front of a mirror.	3.57%	17.86%	17.86%	25.00%	25.00%	10.71%
I believe mirrors are necessary in the classroom.	0.00%	3.57%	3.57%	32.14%	17.86%	42.86%
Mirrors make me feel self-conscious.	7.14%	7.14%	14.29%	35.71%	21.43%	3.57%
I look at my peers' reflection in the mirror to compare ourselves.	3.57%	7.14%	7.14%	46.43%	25.00%	10.71%
I think about the way I look while I dance.	0.00%	0.00%	0.00%	10.71%	28.57%	60.71%

Figure 4: Relevant responses from Q4 (Home vs Studio)

Statement	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I enjoy dancing without a mirror at home.	0.00%	21.43%	17.86%	21.43%	28.57%	10.71%

I feel more at ease dancing at home vs in a classroom setting.	7.14%	32.14%	32.14%	21.43%	3.57%	3.57%
I feel more comfortable in a studio vs at home.	0.00%	0.00%	14.29%	28.57%	35.71%	21.43%
Dancing at home allows more freedom to move.	10.71%	25.00%	42.86%	14.29%	3.57%	3.57%
I feel less self-conscious dancing at home.	3.57%	10.71%	14.29%	39.29%	25.00%	7.14%
I feel less pre-occupied with food while at home.	35.71%	35.71%	14.29%	10.71%	3.57%	0.00%

A full survey report of questions and responses can be found in the appendix.

DISCUSSIONS AND CONCLUSIONS

The survey results show that with the exception of instructors, environment does play a large role in affecting the self-perception of dancers at the University of South Carolina – Columbia. Figure 1 displays how the student dancers' responses to statements regarding perfectionism support existing research. Participants responded very strongly to these statements, illustrating that they have perfectionistic tendencies, as expected from research conducted by Eusanio et al. The statements in Figure 1 all involve self-perception and internalized feelings, which means respondents either have pure ECP or mixed perfectionism according to Hill & Madigan. Pure ECP and mixed perfectionism fall under negative perfectionism. These results are concerning because of research done by Geranmayepour & Besharat and Ghahramani et al. which suggest that negative perfectionism in dancers causes great damage to one's mental health. This can be seen in the form of anxiety, high self-criticism, low self-esteem, and dissatisfaction with one's body and performance. With dancers being at a greater risk for developing negative perfectionism, the results of this survey suggest that more time and resources should be allocated

towards dancers' mental health as well as preventative measures that can be put in place during early training.

Figure 2 illustrates that many dancers reflect disordered eating tendencies. These behaviors can be explained by the findings of negative perfectionism in Figure 1. According to Penniment & Egan, the high risk in ED for dancers stems from perfectionism. It is a combination of thinness related training in the classroom environment and thinness related expectancies from perfectionism that create this risk. It is important that early intervention occurs for dancers in training to prevent eating disorders from developing. While negative eating behaviors were apparent in respondents from Figure 2, statements with stronger wording such as feeling guilty and avoiding eating had more disagreeing responses. The split in response contradicts research from Dantas et al. which suggests that dancers strive for thinness, but still supports research from Danis et al. that dancers are concerned with body image and are dissatisfied regardless of BMI.

The mixed responses in Figure 2, which do not fully support past research, can be explained by Figure 3. According to previous studies by Thompson & Sherman, the dance environment fosters feelings of negative perfectionism and disordered eating behaviors, with instructors being a critical factor as per research done by Hancox et al. At the University of South Carolina – Columbia, dance instructors do their part by encouraging positive body perception and healthy eating habits. Based on the responses from Figure 3, one can assume instructors at this university discourage skipping meals and dieting behavior while encouraging eating healthy, balanced foods. Dancers also disagreed with any statements referring to teachers mentioning weight, criticizing looks, or comparing students. Despite this, dancers still tend to compare themselves to their peers and find that discussions revolving weight and body satisfaction still occur within students. This shows that while instructors are not one of the

factors at this university that foster negative feelings of self-perception, there are still other factors of the dance environment at play. The response to mirrors indicate that dancers feel self-conscious and often compare themselves to peers, which is consistent with the findings of Thompson & Sherman. Perhaps instructors should place more emphasis on using the mirror solely for correcting dance technique rather than body image and comparisons.

While it is difficult to draw any conclusions from Figure 4 due to the contradictory responses, it is clear that being in the dance environment is unavoidable. Dancers are comfortable in the studio because that is where they have always trained. The desire to dance in the studio versus any other location is what makes it so important for the environment to be a healthy space for dancers' minds. Based on this research, it is recommended that additional education be provided to dancers at the University of South Carolina – Columbia in order to better mitigate the effects of the training environment on self-perception. With the exception of instructors as a risk factor in the dance environment, the presence of perfectionism, negative eating behaviors, and self-consciousness due to peers and mirrors were all found in the survey responses and support previous research. The stigmatization of mental health could be one of many reasons why negative perfectionism and unhealthy eating behaviors are prevalent in the dance community to begin with. By conducting more research and implementing programs to discuss the impact of the dance environment on mental health, there could be less stigma surrounding the topic meaning more dancers would speak up and get help. It is suggested that dancers be educated at a young age about the importance of mental health awareness, body positivity, and healthy eating habits as a way to combat factors of the dance environment, such as the effects of peers and mirrors found in Figure 3, that may contribute to negative perfectionism and disordered eating tendencies found in Figures 1 and 2.

LIMITATIONS & FUTURE RESEARCH

The two biggest sources of bias are the Hawthorne Effect and sample size bias. With the Hawthorne effect, participants are aware that they are being observed and could be responding to the survey the way they think the researcher wants them to regardless of anonymity. This effect can impact the survey results in two ways. The first is dancers underreporting the negative aspects of the dance environment, perfectionism, and eating attitudes because they are aware that it can be unhealthy. They could also be worried that the results could somehow link back to them, or that they would hear about it later on from their instructors if the responses were negative. The second way the effect impacts the survey is dancers overreporting in order to support literature/previous studies and please the researcher. A method used to minimize the Hawthorne effect and increase the validity of study results is covert or hidden observation. The largest limitation was the restricted population. When a small sample size is used, there is a higher risk that the results and observations are due to chance. The email was sent out to less than 100 students who are in the Dance Department, and 31 responses were received. If the study were repeated, a larger sample size and more responses would be ideal. Additionally, comparing a variety of university environments and opening it up to an international perspective would be considered to expand the findings. Lastly, a larger variety of dancers from various genres would be sought out, as most of the responses came from students with a ballet background. The researcher looks forward to additional research being conducted in the future in hopes of creating a positive change in the dance community.

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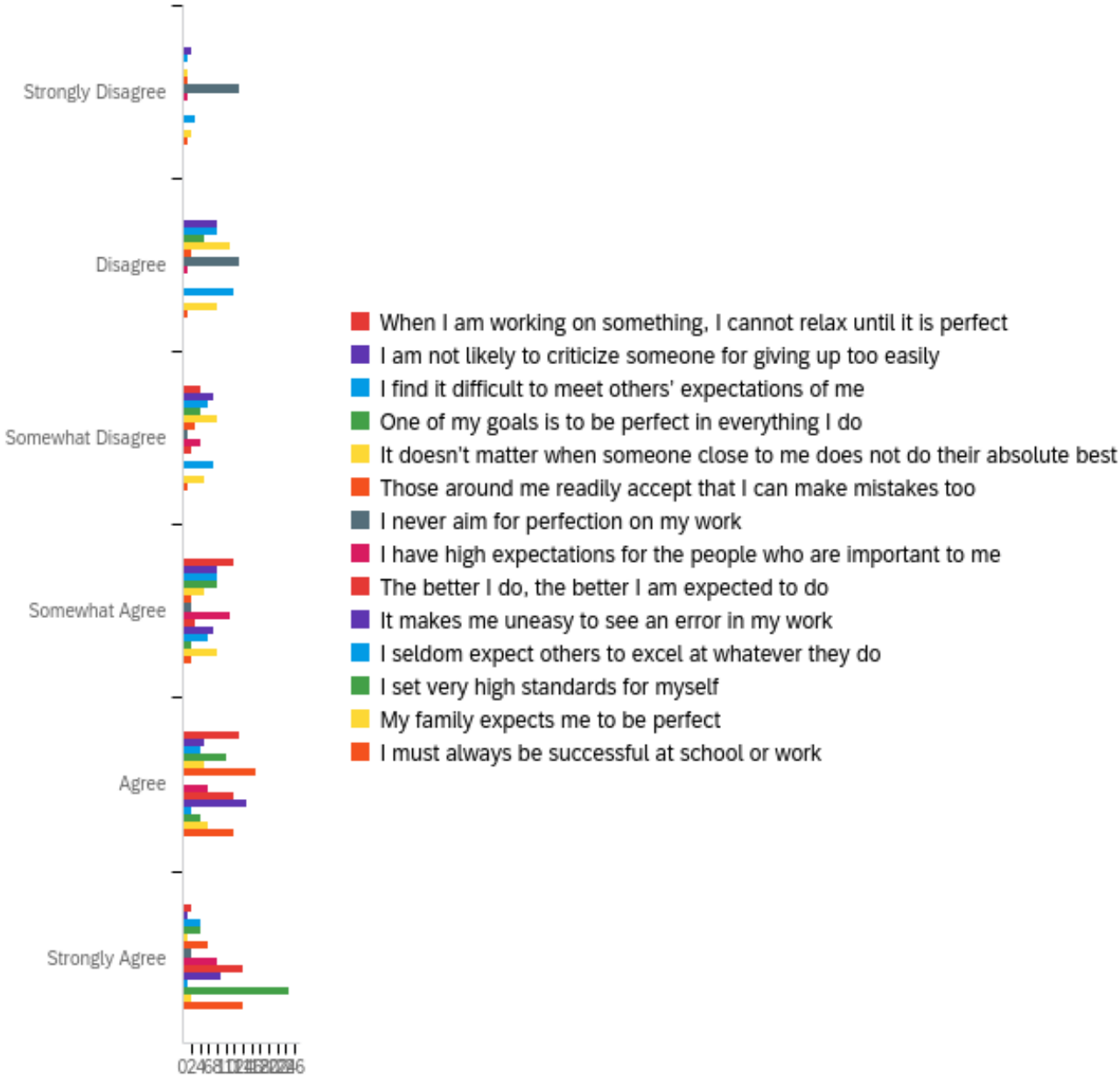
Appendix

Q1 - Listed below are a number of statements concerning personal characteristics and traits. Read each item and decide whether you agree or disagree & to what extent.



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	When I am working on something, I cannot relax until it is perfect	3.00	6.00	4.42	0.79	0.63	31

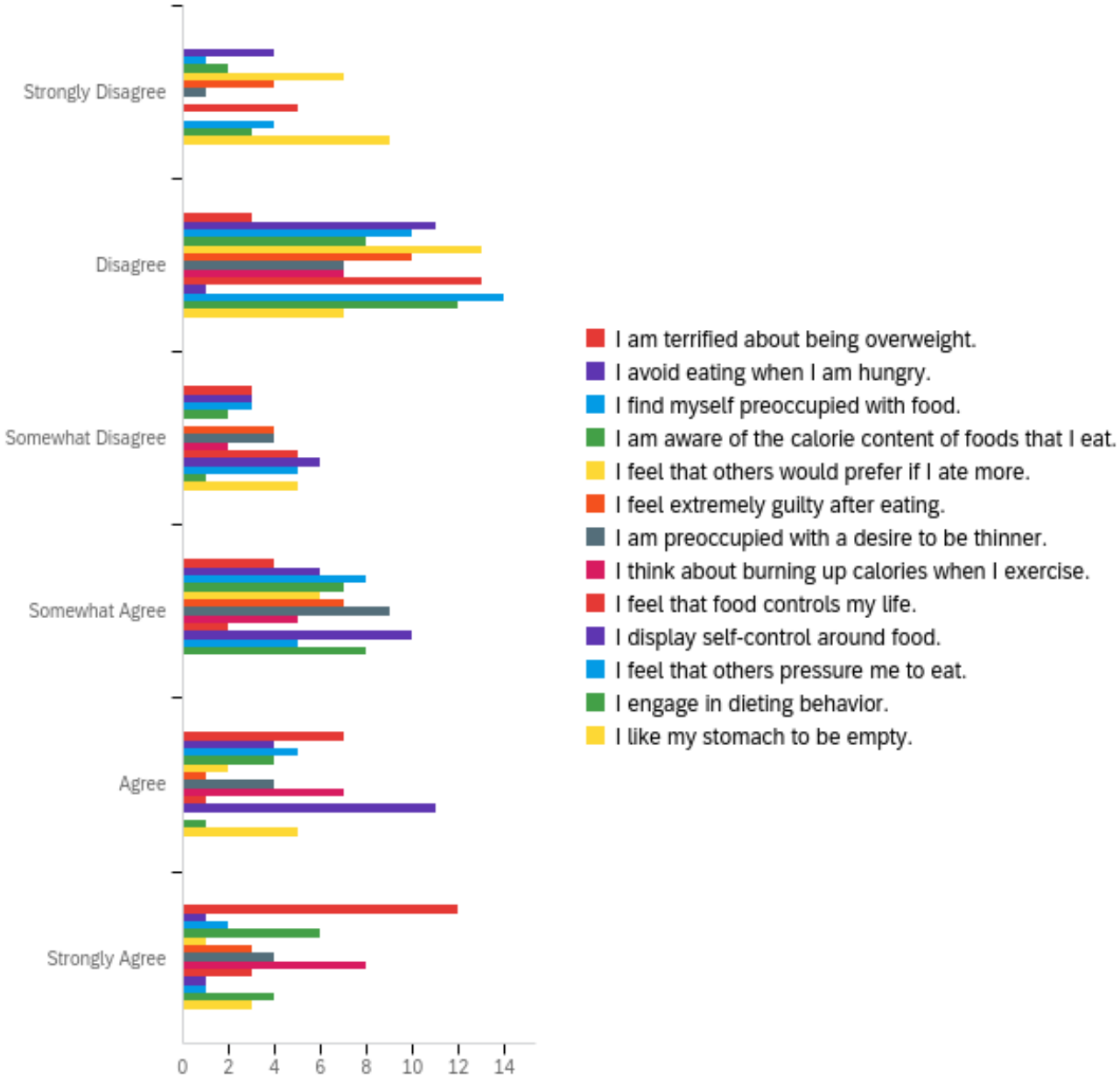
2	I am not likely to criticize someone for giving up too easily	1.00	6.00	3.29	1.27	1.63	31
3	I find it difficult to meet others' expectations of me	1.00	6.00	3.58	1.41	1.99	31
4	One of my goals is to be perfect in everything I do	2.00	6.00	4.13	1.26	1.60	31
5	It doesn't matter when someone close to me does not do their absolute best	1.00	6.00	3.16	1.25	1.55	31
6	Those around me readily accept that I can make mistakes too	1.00	6.00	4.61	1.26	1.59	31
7	I never aim for perfection on my work	1.00	6.00	2.00	1.32	1.74	31
8	I have high expectations for the people who are important to me	1.00	6.00	4.42	1.26	1.60	31
9	The better I do, the better I am expected to do	3.00	6.00	5.23	0.87	0.76	31
10	It makes me uneasy to see an error in my work	4.00	6.00	5.06	0.72	0.51	31
11	I seldom expect others to excel at whatever they do	1.00	6.00	2.84	1.22	1.49	31
12	I set very high standards for myself	4.00	6.00	5.74	0.57	0.32	31
13	My family expects me to be perfect	1.00	6.00	3.45	1.39	1.93	31
14	I must always be successful at school or work	1.00	6.00	5.10	1.20	1.44	31

#	Question	Strongly Disagree		Disagree		Somewhat Disagree		Somewhat Agree		Agree		Strongly Agree		Total
1	When I am working on something, I cannot relax until it is perfect	0.00%	0	0.00%	0	12.90%	4	38.71%	12	41.94%	13	6.45%	2	31
2	I am not likely to criticize someone for giving up too easily	6.45%	2	25.81%	8	22.58%	7	25.81%	8	16.13%	5	3.23%	1	31
3	I find it difficult to meet others' expectations of me	3.23%	1	25.81%	8	19.35%	6	25.81%	8	12.90%	4	12.90%	4	31
4	One of my goals is to be perfect in everything I do	0.00%	0	16.13%	5	12.90%	4	25.81%	8	32.26%	10	12.90%	4	31
5	It doesn't matter when someone close to me	3.23%	1	35.48%	11	25.81%	8	16.13%	5	16.13%	5	3.23%	1	31

	does not do their absolute best												
6	Those around me readily accept that I can make mistakes too	3.23%	1	6.45%	2	9.68%	3	6.45%	2	54.84%	17	19.35%	6	31
7	I never aim for perfection on my work	41.94%	13	41.94%	13	3.23%	1	6.45%	2	0.00%	0	6.45%	2	31
8	I have high expectations for the people who are important to me	3.23%	1	3.23%	1	12.90%	4	35.48%	11	19.35%	6	25.81%	8	31
9	The better I do, the better I am expected to do	0.00%	0	0.00%	0	6.45%	2	9.68%	3	38.71%	12	45.16%	14	31
10	It makes me uneasy to see an error in my work	0.00%	0	0.00%	0	0.00%	0	22.58%	7	48.39%	15	29.03%	9	31

11	I seldom expect others to excel at whatever they do	9.68%	3	38.71%	12	22.58%	7	19.35%	6	6.45%	2	3.23%	1	31
12	I set very high standards for myself	0.00%	0	0.00%	0	0.00%	0	6.45%	2	12.90%	4	80.65%	25	31
13	My family expects me to be perfect	6.45%	2	25.81%	8	16.13%	5	25.81%	8	19.35%	6	6.45%	2	31
14	I must always be successful at school or work	3.23%	1	3.23%	1	3.23%	1	6.45%	2	38.71%	12	45.16%	14	31

Q2 - Listed below are a number of statements concerning personal characteristics and traits. Read each item and decide whether you agree or disagree & to what extent.



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I am terrified about being overweight.	2.00	6.00	4.76	1.36	1.84	29
2	I avoid eating when I am hungry.	1.00	6.00	2.93	1.41	2.00	29

3	I find myself preoccupied with food.	1.00	6.00	3.41	1.38	1.90	29
4	I am aware of the calorie content of foods that I eat.	1.00	6.00	3.72	1.64	2.68	29
5	I feel that others would prefer if I ate more.	1.00	6.00	2.52	1.40	1.97	29
6	I feel extremely guilty after eating.	1.00	6.00	3.00	1.49	2.21	29
7	I am preoccupied with a desire to be thinner.	1.00	6.00	3.69	1.42	2.01	29
8	I think about burning up calories when I exercise.	2.00	6.00	4.24	1.52	2.32	29
9	I feel that food controls my life.	1.00	6.00	2.66	1.47	2.16	29
10	I display self-control around food.	2.00	6.00	4.17	0.91	0.83	29
11	I feel that others pressure me to eat.	1.00	6.00	2.52	1.13	1.28	29
12	I engage in dieting behavior.	1.00	6.00	3.14	1.57	2.46	29
13	I like my stomach to be empty.	1.00	6.00	2.79	1.75	3.06	29

#	Question	Strongly Disagree		Disagree		Somewhat Disagree		Somewhat Agree		Agree		Strongly Agree		Total
1	I am terrified about being overweight.	0.00%	0	10.34%	3	10.34%	3	13.79%	4	24.14%	7	41.38%	12	29
2	I avoid eating when I am hungry.	13.79%	4	37.93%	11	10.34%	3	20.69%	6	13.79%	4	3.45%	1	29
3	I find myself	3.45%	1	34.48%	10	10.34%	3	27.59%	8	17.24%	5	6.90%	2	29

	preoccupied with food.												
4	I am aware of the calorie content of foods that I eat.	6.90%	2	27.59%	8	6.90%	2	24.14%	7	13.79%	4	20.69%	6	29
5	I feel that others would prefer if I ate more.	24.14%	7	44.83%	13	0.00%	0	20.69%	6	6.90%	2	3.45%	1	29
6	I feel extremely guilty after eating.	13.79%	4	34.48%	10	13.79%	4	24.14%	7	3.45%	1	10.34%	3	29
7	I am preoccupied with a desire to be thinner.	3.45%	1	24.14%	7	13.79%	4	31.03%	9	13.79%	4	13.79%	4	29
8	I think about burning up calories when I exercise.	0.00%	0	24.14%	7	6.90%	2	17.24%	5	24.14%	7	27.59%	8	29
9	I feel that food controls my life.	17.24%	5	44.83%	13	17.24%	5	6.90%	2	3.45%	1	10.34%	3	29

10	I display self-control around food.	0.00%	0	3.45%	1	20.69%	6	34.48%	10	37.93%	11	3.45%	1	29
11	I feel that others pressure me to eat.	13.79%	4	48.28%	14	17.24%	5	17.24%	5	0.00%	0	3.45%	1	29
12	I engage in dieting behavior.	10.34%	3	41.38%	12	3.45%	1	27.59%	8	3.45%	1	13.79%	4	29
13	I like my stomach to be empty.	31.03%	9	24.14%	7	17.24%	5	0.00%	0	17.24%	5	10.34%	3	29

Q3 - Listed below are a number of statements concerning personal characteristics and traits. Read each item and decide whether you agree or disagree & to what extent.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	My teacher encourages positive body perception.	3.00	6.00	5.14	0.91	0.84	28
2	My teacher encourages thin body types.	2.00	5.00	3.07	1.10	1.21	28

3	My teacher encourages healthy eating habits.	3.00	6.00	5.39	0.77	0.60	28
4	My teacher compares me to my peers.	1.00	6.00	2.86	1.53	2.34	28
5	My teacher criticizes the way I look.	1.00	5.00	2.14	1.19	1.41	28
6	My teacher criticizes the way my peers look.	1.00	5.00	2.18	1.14	1.29	28
7	My teacher mentions weight in the classroom.	1.00	5.00	2.07	1.00	0.99	28
8	My peers encourage healthy eating habits.	2.00	6.00	4.14	1.19	1.41	28
9	My peers talk about weight affecting performance.	1.00	6.00	3.89	1.42	2.02	28
10	My peers discuss body satisfaction.	2.00	6.00	4.71	0.88	0.78	28
11	I compare myself to my peers.	3.00	6.00	4.89	0.90	0.81	28
12	My peers comment on my body size.	1.00	5.00	2.29	1.10	1.20	28
13	My peers comment on others' body sizes.	1.00	6.00	2.75	1.55	2.40	28
14	What I wear affects how I feel.	4.00	6.00	5.32	0.80	0.65	28
15	My attire makes me feel self-conscious while dancing.	1.00	6.00	3.82	1.51	2.29	28
16	I enjoy dancing in front of a mirror.	1.00	6.00	3.82	1.36	1.86	28
17	I believe mirrors are necessary in the classroom.	2.00	6.00	4.93	1.10	1.21	28
18	Mirrors make me feel self-conscious.	1.00	6.00	3.57	1.29	1.67	28
19	I look at my peers' reflection in the mirror to compare ourselves.	1.00	6.00	4.14	1.16	1.34	28
20	I am satisfied with my reflection in the mirror.	1.00	6.00	3.64	1.11	1.23	28
21	I believe mirrors enhance performance.	3.00	6.00	4.61	0.90	0.81	28

22	I think about the way I look while I dance.	4.00	6.00	5.50	0.68	0.46	28

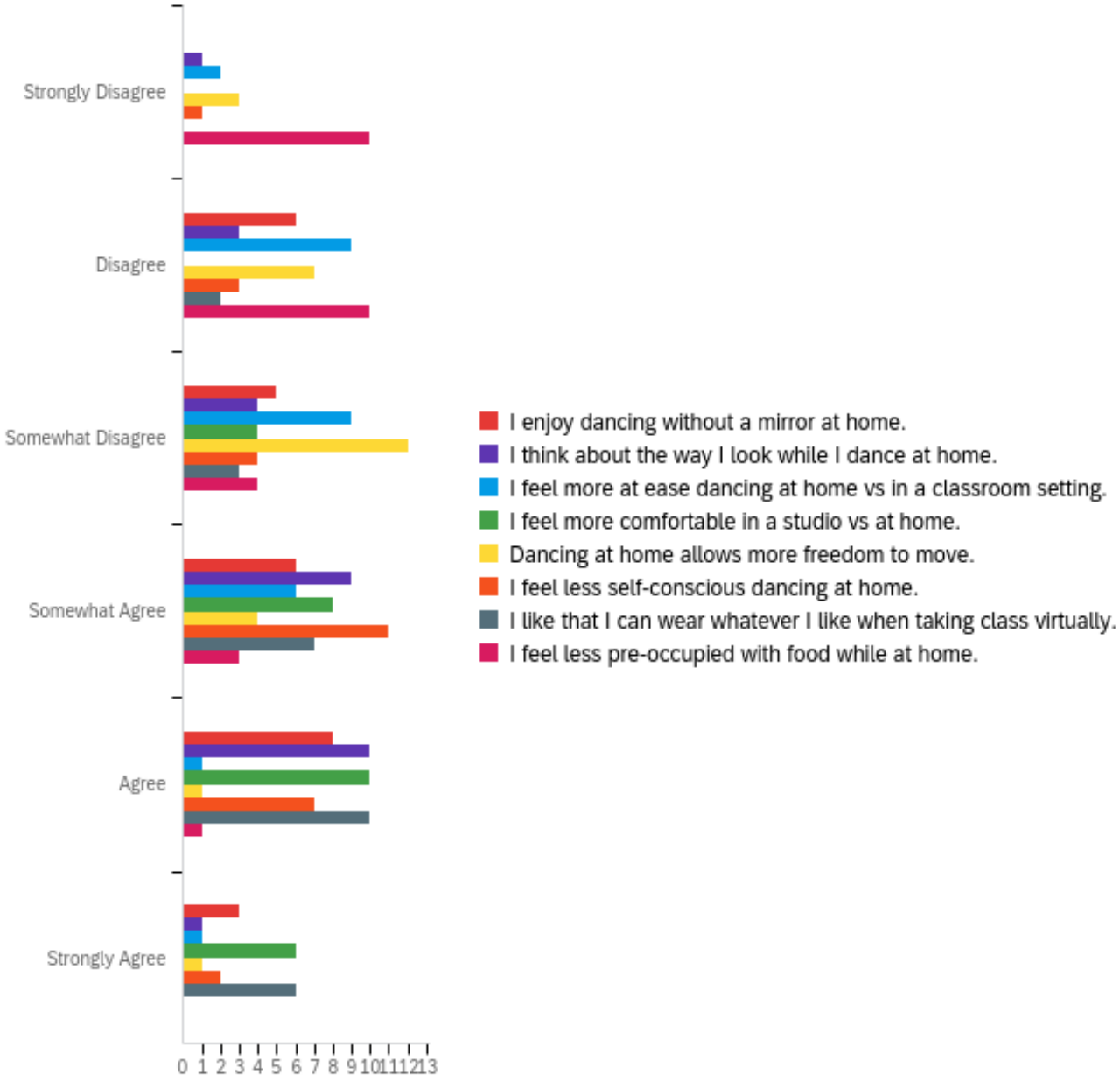
#	Question	Strongly Disagree		Disagree		Somewhat Disagree		Somewhat Agree		Agree		Strongly Agree		Total
1	My teacher encourages positive body perception.	0.00%	0	0.00%	0	7.14%	2	14.29%	4	35.71%	10	42.86%	12	28
2	My teacher encourages thin body types.	0.00%	0	42.86%	12	21.43%	6	21.43%	6	14.29%	4	0.00%	0	28
3	My teacher encourages healthy eating habits.	0.00%	0	0.00%	0	3.57%	1	7.14%	2	35.71%	10	53.57%	15	28
4	My teacher compares me to my peers.	17.86%	5	35.71%	10	14.29%	4	17.86%	5	3.57%	1	10.71%	3	28
5	My teacher criticizes the way I look.	35.71%	10	35.71%	10	14.29%	4	7.14%	2	7.14%	2	0.00%	0	28
6	My teacher	28.57%	8	46.43%	13	10.71%	3	7.14%	2	7.14%	2	0.00%	0	28

	criticizes the way my peers look.												
7	My teacher mentions weight in the classroom.	32.14%	9	39.29%	11	21.43%	6	3.57%	1	3.57%	1	0.00%	0	28
8	My peers encourage healthy eating habits.	0.00%	0	10.71%	3	17.86%	5	32.14%	9	25.00%	7	14.29%	4	28
9	My peers talk about weight affecting performance.	3.57%	1	17.86%	5	14.29%	4	32.14%	9	14.29%	4	17.86%	5	28
10	My peers discuss body satisfaction.	0.00%	0	3.57%	1	0.00%	0	35.71%	10	42.86%	12	17.86%	5	28
11	I compare myself to my peers.	0.00%	0	0.00%	0	7.14%	2	25.00%	7	39.29%	11	28.57%	8	28
12	My peers comment on my body size.	28.57%	8	32.14%	9	25.00%	7	10.71%	3	3.57%	1	0.00%	0	28
13	My peers comment on others'	25.00%	7	28.57%	8	17.86%	5	10.71%	3	10.71%	3	7.14%	2	28

	body sizes.													
14	What I wear affects how I feel.	0.00%	0	0.00%	0	0.00%	0	21.43%	6	25.00%	7	53.57%	15	28
15	My attire makes me feel self-conscious while dancing.	10.71%	3	10.71%	3	10.71%	3	39.29%	11	10.71%	3	17.86%	5	28
16	I enjoy dancing in front of a mirror.	3.57%	1	17.86%	5	17.86%	5	25.00%	7	25.00%	7	10.71%	3	28
17	I believe mirrors are necessary in the classroom.	0.00%	0	3.57%	1	3.57%	1	32.14%	9	17.86%	5	42.86%	12	28
18	Mirrors make me feel self-conscious.	7.14%	2	17.86%	5	14.29%	4	35.71%	10	21.43%	6	3.57%	1	28
19	I look at my peers' reflection in the mirror to compare ourselves.	3.57%	1	7.14%	2	7.14%	2	46.43%	13	25.00%	7	10.71%	3	28
20	I am satisfied with my	3.57%	1	10.71%	3	28.57%	8	35.71%	10	17.86%	5	3.57%	1	28

	reflection in the mirror.													
21	I believe mirrors enhance performance.	0.00%	0	0.00%	0	10.71%	3	35.71%	10	35.71%	10	17.86%	5	28
22	I think about the way I look while I dance.	0.00%	0	0.00%	0	0.00%	0	10.71%	3	28.57%	8	60.71%	17	28

Q4 - Listed below are a number of statements concerning personal characteristics and traits. Read each item and decide whether you agree or disagree & to what extent.



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I enjoy dancing without a mirror at home.	2.00	6.00	3.89	1.32	1.74	28
2	I think about the way I look while I dance at home.	1.00	6.00	3.96	1.18	1.39	28

3	I feel more at ease dancing at home vs in a classroom setting.	1.00	6.00	2.93	1.13	1.28	28
4	I feel more comfortable in a studio vs at home.	3.00	6.00	4.64	0.97	0.94	28
5	Dancing at home allows more freedom to move.	1.00	6.00	2.86	1.12	1.27	28
6	I feel less self-conscious dancing at home.	1.00	6.00	3.93	1.19	1.42	28
7	I like that I can wear whatever I like when taking class virtually.	2.00	6.00	4.54	1.15	1.32	28
8	I feel less pre-occupied with food while at home.	1.00	5.00	2.11	1.11	1.24	28

#	Question	Strongly Disagree		Disagree		Somewhat Disagree		Somewhat Agree		Agree		Strongly Agree		Total
1	I enjoy dancing without a mirror at home.	0.00%	0	21.43%	6	17.86%	5	21.43%	6	28.57%	8	10.71%	3	28
2	I think about the way I look while I dance at home.	3.57%	1	10.71%	3	14.29%	4	32.14%	9	35.71%	10	3.57%	1	28
3	I feel more at ease dancing at home vs in a classroom setting.	7.14%	2	32.14%	9	32.14%	9	21.43%	6	3.57%	1	3.57%	1	28

4	I feel more comfortable in a studio vs at home.	0.00%	0	0.00%	0	14.29%	4	28.57%	8	35.71%	10	21.43%	6	28
5	Dancing at home allows more freedom to move.	10.71%	3	25.00%	7	42.86%	12	14.29%	4	3.57%	1	3.57%	1	28
6	I feel less self-conscious dancing at home.	3.57%	1	10.71%	3	14.29%	4	39.29%	11	25.00%	7	7.14%	2	28
7	I like that I can wear whatever I like when taking class virtually.	0.00%	0	7.14%	2	10.71%	3	25.00%	7	35.71%	10	21.43%	6	28
8	I feel less pre-occupied with food while at home.	35.71%	10	35.71%	10	14.29%	4	10.71%	3	3.57%	1	0.00%	0	28