

Impact and Solutions to Combat Eating Disorders in Youth Dancers

Honors Project in Ethical Issues in Sports Communications

Anna Louise Pickens

Background and History of Eating Disorders

The earliest written descriptions of eating disorders date back to the 12th and 13th centuries, although there are almost certainly earlier instances of disordered eating.¹ Starting in the 1100s, religious self-starvation (anorexia mirabilis) and other forms of self-harm were recorded as pious symbols of commitment to God. Anorexia mirabilis (which is also known as “holy anorexia”) largely affected women and girls, and according to researchers from the National Library of Medicine, it was one of the earliest glorifications of starvation. People who were looking to express devotion to God in the most extreme ways were attracted to anorexia mirabilis as an avenue to become martyrs.

Although closely connected, the intentions and reasons why a person might develop anorexia mirabilis differ from anorexia nervosa. While anorexia nervosa has been medically confirmed as a psychological disorder characterized by a fear of being overweight and distorted body image, anorexia mirabilis is technically considered to be a religious choice. Especially given the limited access modern historians have to the thoughts and feelings of women in the

¹ Dell'Osso, L., Abelli, M., Carpita, B., Pini, S., Castellini, G., Carmassi, C., & Ricca, V. (2016, July 7). *Historical evolution of the concept of anorexia nervosa and relationships with orthorexia nervosa, autism, and obsessive-compulsive spectrum*. *Neuropsychiatric disease and treatment*. Retrieved November 29, 2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4939998/>

Middle Ages, it is nearly impossible to confirm whether cases of disordered eating were actually anorexia mirabilis or anorexia nervosa. It is possible that women and girls with characteristics of anorexia nervosa covered their disorders under the guise of religious fasting, using it as a socially acceptable way to continue their eating disorders. However, whether or not early individuals with disordered eating had control over their actions, the societal impact remains the same. Starvation was established as empowering, pious and praiseworthy. Many of those unhealthy associations are still prevalent in western societies today.

Although anorexia mirabilis was first recorded in the 1100s, it took almost 600 years before it was established as a medical disorder. In 1689, Richard Morton provided the first medical description of anorexia symptoms.² Up until that point, disordered eating was considered a choice, and was considered to only be a practice of religious extremists. Morton described anorexia differently, labeling it as a “nervous consumption.” Over 200 years after anorexia was categorized by Morton, Dr. Pierre Janet noted bulimic behavior in patients,³ and in 1959, binge eating disorder was recognized.⁴

² Kontić, O., Vasiljević, N., Jorga, J., Lakić, A., & Jasović-Gasić, M. (2009). *[Richard Morton (1637-1698)--the distinguished physician of the 17th Century]*. U.S. National Library of Medicine. Retrieved November 29, 2022, from <https://pubmed.ncbi.nlm.nih.gov/20069934/>

³ Pope, H. G., Hudson, J. I., & Miale, J.-P. (2009, July 9). *Bulimia in the late nineteenth century: The observations of Pierre Janet: Psychological medicine*. Cambridge Core. Retrieved November 29, 2022, from <https://www.cambridge.org/core/journals/psychological-medicine/article/bulimia-in-the-late-nineteenth-century-the-observations-of-pierre-janet/5C6FC79E356BE0B778F6F9E88CD06263>

⁴ Cooper, Z., & Fairburn, C. (n.d.). *Refining the definition of binge eating disorder and nonpurging bulimia nervosa*. The International journal of eating disorders. Retrieved November 29, 2022, from <https://pubmed.ncbi.nlm.nih.gov/12900989/>

By the early 1900s, medical professionals believed they found the root cause of eating disorders. They mistakenly blamed the endocrine system and focused on finding a physical cause for the disorder as opposed to observing psychological factors. It was not until the 1930s and 1940s that eating disorders were recognized as psychological conditions.⁵

As more research has been performed over the past several decades concerning disordered eating, it has become clear that women, particularly young women, are the segment of the population most likely to develop anorexia, bulimia and binge eating disorder. Although eating disorders are prevalent among all races and sexual orientations, they have historically been associated with white, heterosexual girls. While there are too many factors to determine causation, it is worth noting that white, heterosexual female children are also the demographics that are most likely to participate in dance lessons.

Anorexia nervosa, bulimia and binge eating disorder are all prevalent in children who dance, both recreationally and on a pre-professional level. “Prevalence of eating disorders amongst dancers; a systematic review and meta-analysis” was published in European Eating Disorders Review and analyzed dancers from 1966 to 2013.⁶ The series of studies confirmed with 95% confidence that the overall prevalence of eating disorders in dancers was 12%. Specifically, 16.4% of ballet dancers developed eating disorders, and overall, dancers were three times more likely to develop an eating disorder than the general population.

⁵ Strum, J. (2022, May 26). *A timeline for the historical evolution of eating disorders* The Recovery Village Drug and Alcohol Rehab. Retrieved November 29, 2022, from <https://www.therecoveryvillage.com/mental-health/eating-disorders/history-of-eating-disorders/>

⁶ Arcelus, J., Witcomb, G., & Mitchell, A. (2013, November 26). *Prevalence of eating disorders amongst dancers*. Retrieved November 29, 2022, from <https://onlinelibrary.wiley.com/doi/10.1002/erv.2271>

The New York City Ballet's cast of the Nutcracker includes 125 youth dancers. Out of those children, according to the above statistics, fifteen of them will develop eating disorders. 12% might seem like a small and arbitrary percentage, but when one considers the lives and futures of fifteen children, the importance of preventing the spread of this epidemic is appropriately magnified.

The Prevalence of Eating Disorders in Dance

Although it might not be intuitive to compare the culture associated with dance to religion, there are strong similarities. The martyrs who practiced religious starvation in the 1100s did so as a sacrifice to their God, and in an attempt to become closer to divine perfection. Although to audience members watching a ballet, performers might appear to look free, at the core of many dancers' training, dance is not about freedom. It is about becoming perfect, or as close as possible to a nearly divine standard. Although their arms may appear light and their turns effortless, internally, nothing is relaxed.

"In terms of pain that is experienced daily for dancers, you have to tough it out. There were multiple times where I'd have to put on my pointe shoes with bruised and swollen toenails," said a former student of the Boston Ballet School. "I remember one time we were rehearsing for our end of the year performance, and I had been dancing for hours without any breaks. I was in so much pain, I eventually went to the bathroom and cried. But I had to quickly wipe away my tears and walk back to the studio."

According to therapist and eating disorder specialist Rachelle Heinemann, the enormous amounts of pressure young dancers face is a factor that contributes to the development of eating disorders.

“A lot of pressure comes along with being an athlete or a dancer (let’s be real, dancers are athletes.) The pressure to perform, beat records, win competitions, and get places on a team causes athletes to push themselves to a point that is often unhealthy,” Heinemann explained. “As a dancer, there is so much emphasis on the way [you] look and the pressure to be thinner or fit into a costume in a specific way may lead to disordered eating. In addition, harsh criticism or unrealistic expectations from coaches can exacerbate those issues.”

The juxtaposition between beauty and pain is a central part of dance culture. Although dance is often discredited as “less of a sport” because of the element of artistic performance, ultimately the combination of athleticism and performance dance requires is part of what allows eating disorders to flourish. Dancers learn from a young age how to push through discomfort, and sometimes pain, without letting smiles slip. To be a dancer is to be an actress, and in order to successfully hide an eating disorder, one has to be a good actress.

After being diagnosed with an eating disorder, one former dancer described how she would pretend to drink Boost, a supplemental high-calorie drink prescribed to her by her nutritionist. “Whenever I was supposed to drink my Boost, I would act like I was drinking it, and then would go pour it down the drain,” she said. “I very much recognized that I had a problem, but I didn’t really want to fix it.”

However, as Heinemann mentioned, as much as dancers are performers, they are also athletes with competitive spirits and a desire for perfection. The professional dance world is both

extremely competitive and extremely young. It is very unusual for professional ballet dancers to attend college before beginning their dance careers. There simply isn't time.

Top students at local studios with ambitions of becoming professionals usually move to pre-professional training schools as young teenagers. By their late teens a lucky few of the most talented dancers have risen through the ranks, becoming apprentices and later signing contracts to join companies. Their true career lasts maybe fifteen to twenty years, perhaps from ages eighteen to thirty-five. Some make it to their early forties if they are lucky and avoid injuries. The young and often brutal nature of professional dance forces children to grow up quickly. Children at pre-professional ballet schools often live in company-issued dorms with other ballet students, or truly alone in their own off-campus apartments, far from the support systems of their families.

"I was living by myself at fifteen. Everyone else was, too. A lot of these girls moved from different states," said one dancer who attended a pre-professional boarding school. "There was non-stop dancing, all throughout the day, eight hours a day. No one ate. Like, no one had a break for lunch. They might eat a protein bar."

The extreme levels of independence, coupled with intense pressure from teachers and other students, made it easy to develop unhealthy habits.

"There was no talk about nutritionally eating well. When [the teachers] complimented the students, it was very much like 'look at your nice, beautiful, skinny, long legs.' It was positive but then also still reinforcing [unhealthy standards]," a former dancer continued. "It came to a point where I was restricting myself so much that I would end up binge eating. My [second year at boarding school], things were going very, very badly. I started gaining a little bit of weight,

and I noticed that when that happened my teachers stopped paying attention to me. They weren't giving me any compliments anymore. They would look at me and almost glare."

The former dancer continued, disclosing that her roommates at her ballet boarding school made fun of her body and size after she did receive praise from teachers in class. "One time I was ordering new leotards, and I asked my roommate, 'Do you like this leotard? Should I get it?' She was like, 'I think you're a little too square for that.' And that's when, in my mind, I was like, 'shoot, am I gaining weight?' And that's when [my eating disorder] came back."

The trifecta of competitive peers, isolation from parents and critical teachers creates the perfect storm that allows eating disorders to develop rapidly at ballet boarding schools. However, eating disorders also impact children who dance at less-competitive levels or who live at home with their families.

"I know, a lot of times, if maybe a teacher isn't putting the pressure on a student, it's the parents that are putting pressure on the students," said Katie O'Connor, a former dancer who grew up attending a performing arts academy, and who later danced at East Carolina University.

"A girl that I danced with in college struggled so badly with bulimia, and it was because of her mom. Her mom was a fitness instructor, and would send her things in the mail, like, '10 ways to tighten your abs' or 'five different recipes to make you lose weight.' She would literally mail her those snippets out of a magazine," O'Connor continued. "It was intense, but from the mom's perspective, [she probably thought], 'oh, I'm just trying to help my daughter be healthy.' But at the end of the day, she developed an eating disorder."

Similarly, multiple anonymous dancers from collegiate dance teams described how their parents would quietly critique their teammates' bodies after performances to their own children.

Although the parents did not directly comment on their own children's bodies, criticizing the weight of teammates still subtly emphasizes the importance of looking a certain way to be a successful dancer.

For children who spend the formative years of their development around older people who encourage negative relationships with food, the results can be long-lasting. One dancer discussed how, as a young child, she remembers older students at her dance studio discussing their harmful relationships with food.

“There's specifically this one girl who I looked up to, and she was maybe three years older than me, but she had a very bad eating disorder, you could tell. And I think a lot of times, just being around that [impacted me],” the dancer explained.

“I would hear, ‘oh, I look fat,’ or ‘I need to go throw up, I ate too much.’ Or [people telling me] ‘remember, don’t eat anything before we dance so your stomach doesn't look bloated.’ Or even [I remember] growing up my dance teachers going up to dancers and saying ‘Oh, it looks like you had a little bit too much to eat, suck in your stomach.’”

Small, seemingly insignificant comments are said to dancers starting at a young age but continue at every level of training. Liz Blakemore, a dance instructor with a degree in dance performance, had similar experiences while dancing on a collegiate level as part of the dance department at East Carolina University.

“[Instructors] definitely talked about weight, about being a certain size and doing whatever it took to make sure you were that size they were looking for,” said Blakemore. “They also made comments like, ‘You can't be lazy. You guys need to go into the gym all the time. You should only be eating salads.’”

Blakemore continued to say that, while she believes conditions are slowly getting better for dancers, there is still a long way to go. “I know that in the dance world, there are still weigh-ins and there is still typecasting for certain kinds of bodies,” she said. “That kind of thing can obviously lead to eating disorders. I do think that now we have moved away from that a lot, and that is mostly because a lot of the people that are now teaching were put in some of those situations. And we remember how that made us feel.”

Impacts and Solutions

Being around adults who encourage unhealthy relationships with food is certainly psychologically damaging to young dancers. Additionally, the immediate dangers eating disorders themselves present cannot be underemphasized.

“Some of the physical complications that [dancers] may face include heart problems, such as bradycardia (a slow heart rate), and mitral valve prolapse (a leaky heart valve),” said Dr. Anita Lwanga, a kinesiologist, internist, and geriatrician. “Hormonal imbalances, such as functional hypothalamic amenorrhea can lead to premature osteoporosis which is a condition where people have weak bones that break easily that we tend to see in individuals that are over 60 years of age.”

Statistically, eating disorders, and specifically anorexia nervosa, have the highest mortality rate of any mental illness.⁷ While 60% of individuals who receive professional eating

⁷ *Expectations after treatment: Statistics on eating disorders*. Center For Discovery. (2019, October 22). Retrieved November 29, 2022, from <https://centerfordiscovery.com/blog/statistics-on-eating-disorders/>

disorder treatment make what medical professionals refer to as a “full recovery,” between 5-10 percent of individuals diagnosed with anorexia die within 10 years of their diagnosis. 18-20 percent die within 20 years of being diagnosed.

In 1995, a meta-analysis of 42 studies of eating disorder reports noted that, “The aggregate annual mortality rate of anorexia nervosa is 12 times higher than the annual death rate of all causes of death for females 15-24 years of age in the general population and more than 200 times greater than the suicide rate in the general population.”⁸

One former dancer remembered when, as an eighth grader, she realized the severity of her eating disorder. Realizing something was wrong, her mother had taken her to the doctor. When her heart rate was taken, it was extremely low.

“My mom started crying and the doctor was like, ‘look, if you don't eat, if you do any sort of exercise, you might have a heart attack,’” the former dancer explained. “That's when I realized it was actually really bad, what I was doing. I was like, ‘I'm literally killing myself.’”

To put it plainly, young women who are otherwise healthy but who suffer from eating disorders are dying at alarmingly fast rates. Their causes of death are complex. According to a study that followed patients who were diagnosed with eating disorders for eighteen years, less than forty percent died of medical causes. Nearly one out of every five of the deceased patients died due to substance abuse, and 25% committed suicide.

⁸ South Carolina Department of Mental Health. (n.d.). *South Carolina Department of Mental Health*. Eating Disorder Statistics. Retrieved November 29, 2022, from <http://www.state.sc.us/dmh/anorexia/statistics.htm>

One former student who attended a residential ballet school described how her struggle with eating disorders caused her to become deeply depressed as a teenager. “One day I woke up and I just knew something was wrong,” she explained. “Like I just knew that I was going to try to do something, maybe hurt myself. I was very, very, deeply depressed.”

Prior to that day, the dancer had been clearly struggling, but had not received help from her instructors.

“The main director of my program, she had called me in [to her office]. I was like, ‘hey, I’m having a really, really hard time,’” the former dancer remembered. “And she was like, ‘I know.’ But she never came and asked me before if I was okay. None of [the instructors] did, and it was noticeable that I was very sad. They knew that something was wrong and they would just turn their heads. I didn’t want to go [to class] and I hated [ballet], honestly, because I hated looking at myself in the mirror.”

The director, who was a former principal dancer with New York City Ballet, later told the student that she had called her into the office because she had noticed that she had gained weight. “She was like, ‘we can get you connected with a nutritionist, we can get you on a diet.’ And I kept telling her ‘No you don’t understand, I’m not doing *well*.’ And she just couldn’t understand what I meant,” the former dancer explained. “I think they probably learned from me eventually and were like “dang, we probably should have helped her better.””

As a dance teacher who has seen many examples of eating disorders, Blakemore believes it is important for dance instructors to actively discuss nutrition and health with their students.

“I do think that we need to talk more about it; I try and talk to my students about it a little bit more than the average dance teacher, just because I have been around eating disorders a lot,

right?” she said. “I sit down with the kids, and I try and talk to them about that. I talk about how protein is very, very important. You have to fuel your body; you're demanding so much of it with dance, that you have to be able to input what you're pulling out of it.”

She also believes it is important for dance teachers to become familiar with the signs of disordered eating in their students. Due to the amount of time dance teachers spend with highly competitive dancers, and the level of detail with which instructors must observe students' bodies, Blakemore explained that dance teachers are often the first ones to catch eating disorders.

“Having a student that does have an eating disorder, you look for the key signs. Are they eating? When we have massive, long rehearsals, are they bringing any food?” she explained.

“What differences can you see on their body is a big one for us, and that would be something that most people wouldn't see, as soon as a dance teacher would.”

To catch eating disorders early and prevent the next generation of students from developing negative relationships with food, dance teachers need to be aware of the signs and dangers of eating disorders. Equally as important, though, they must be willing to prioritize the health of students over the traditional ideas of beauty in dance, and especially in ballet.

“I definitely know that it's a very big culture thing. You know, where ballet came from, they were very strict,” Blakemore explained. “Over in Europe and Russia, [ballet was designed for] specific kinds of body types. I do feel like the dance world is changing a lot, though. We're trying to let ballet students know that you don't have to be a size zero or any size to be good at ballet.”

If the dance world, and specifically the world of ballet, does not change, many students are going to be lost in one of two ways. Many students who struggle with eating disorders will

try to hide their struggles, push through, and become professional dancers. Eventually, though, statistically many of them will end up damaging their bodies beyond repair.

“Out of my level at Boston Ballet, almost everyone stopped dancing,” said a former pre-professional dancer who reached the highest level of training with Boston Ballet. “There are eight or nine girls who aren’t dancing at all anymore.”

Other students will lose their love of dance because of their eating disorders and choose to leave in order to preserve their own health. That is what happened to the dancer who suffered from suicidal ideations while at boarding school.

Eventually, despite being on track to have a successful professional career, that dancer ended up leaving ballet behind for good. The day she woke up with suicidal ideations, she called her mother, who arranged for her to fly home the same day. She moved back from her residential ballet school and started public high school for the first time her junior year. She now is a student at the University of North Carolina at Chapel Hill, and has not danced in years.

“It was almost a relief to me,” she said, describing the feeling of coming home from her ballet school. “I knew that if I went back there, I would never be happy. I don’t want to live the rest of my life being scared of having to look at myself in a leotard and hating myself.”

Occasionally, though, she does wonder what her life would have been like had she been able to become a professional dancer. She believes that, had she not struggled with an eating disorder, or had her instructors given her the help she needed, she would have become a professional ballet dancer. Ironically, the eating disorder that was fueled by her dreams of becoming a successful ballet dancer was what stripped her of the chance of making that dream a reality.

Eating disorders in dance are caused by complex combinations of events, environments and dancers' own psychological tendencies. It is impossible to attribute a complicated psychological disorder to one factor, but parents, teachers, media and peers all play important roles. Ultimately, it will take significant societal shifts in the culture that surrounds dance in order to not only save the health of students, but also prevent talented athletes from leaving dance altogether.

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