

## Running on Empty: Temporary Eating Disorders in Female Athletes

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### Abstract

In sports that carry high aesthetic value, such as running or dance, female athletes are disproportionately affected by eating disorders, with nearly 70 percent suffering from an eating disorder throughout their lifetimes. This paper seeks to identify and diagnose a particular type of eating disorder—a temporary eating disorder—that affects female athletes, and to differentiate this disorder from more long-term conditions such as anorexia nervosa or bulimia nervosa. In particular, it is argued that temporary eating disorders are largely performance-oriented, meaning that athletes who suffer from these conditions are motivated by a desire to achieve perfection in personal performance, rather than to attain a certain self-image. This paper cites five interviews with anonymous female athletes who suffered temporary eating disorders throughout their high school athletic careers, hypothesizing that temporary eating disorders are more common in high school athletes due the temporary nature of high-school athletic seasons, as opposed to the seasons of collegiate or professional athletes. The paper also proposes a more organized system of disordered eating education in high schools to effectively prevent the development of these types of conditions. Further academic conversations on this topic would include additional research to understand and more concretely define the parameters of a temporary eating disorder, either separate from or in conjunction to better-understood long-term eating disorders.

In the spring of 2015, in the second race of my junior track season, I drop thirty-six seconds off my mile time. That same month, I stop eating lunch. In the following weeks, I will continue to excel, setting personal bests in every race, and my weight will start to drop as quickly as my time. Five pounds, then ten. Fifteen. The scariest part is that it's not as physically noticeable as you might think. The fat has faded from my arms and waist and thighs, replaced in my legs by muscle and in the rest of my body by empty space. I never sense that there might be something wrong with the way I am behaving. Once the season ends, I return to my normal eating habits without a backward glance.

This is my first and only brush with anorexia. Now, three years later, I am beginning to understand the implications of my behavior.

Physiologically speaking, the female body is not designed to run long distances. In fact, our bodies are not designed for much physical activity at all. We are at higher risk of injury due to estrogen loss, and we have wider pelvises, which changes the way our hips are positioned and increases the stress we transfer to our knees and legs. On average, women are also ten percent smaller than men in most physical variables—cardiac size, blood volume, hemoglobin concentration—yet we carry about twice the body fat of men for childbearing purposes (Carbon, 1994).

So common are certain health concerns among young female athletes that the three primary issues have been officially designated the “female athlete triad:” menstrual dysfunction or amenorrhea, low energy availability (with or without an eating disorder), and decreased bone mineral density (Nazem & Ackerman, 2012). The female athlete triad is particularly prevalent among sports that carry high aesthetic value, such as dance and running. In these sports, up to 69 percent of athletes may be affected, compared to the two to five percent of women in the general population (Nazem & Ackerman, 2012).

Elite female athletes are also more likely to develop the health problems of the female athlete triad. A 2016 study performed at the Boswell Human Performance Laboratory at Stanford University classified female college athletes into low, moderate, and high-risk categories for developing bone stress injuries. The researchers evaluated risk using the Female Athlete Triad Cumulative Risk Assessment score and found that the highest proportion of athletes who were at moderate to high risk of injury were gymnasts, lacrosse players, and cross-country runners (Tenforde et al., 2016). These findings remain consistent with Nazem and Ackerman's findings that female athletes participating in “lean” sports are more likely to develop one or more components of the triad (Tenforde et al., 2016).

Disordered eating in particular can put female athletes at much higher risk of developing one or more of the above health issues. In fact, amenorrhea, the absence of menstruation in females, used to serve as a diagnostic criterion for anorexia nervosa (Nattiv et al., 2007). Similarly, athletes might reduce energy availability by reducing energy intake (food)

while increasing expenditure (exercise), resulting in an imbalance that, if consistent, can severely affect bone health and hormonal development (Nattiv et al., 2007). The medical complications that result from disordered eating can affect all of the body's major systems, including the cardiovascular, reproductive, skeletal, gastrointestinal, and central nervous systems.

"I just kind of stopped eating. I lost thirty pounds. And no one noticed."

For Grace Conley<sup>1</sup>, it happened the summer after her sophomore year of high school, when she started winning races. She describes the pressure as self-inflicted and overwhelming: "When I didn't eat, I ran faster. And when I ran faster, I won."

In her high school days, Conley captained both her cross-country and track teams, holding personal bests of 5:27 (1600m) and 19:32 (5000m), which, for female high-school runners, are considered excellent times. (To offer some comparison, I ran around 5:58 in the 1600m and 22:51 in the 5000m, meaning Conley would have soundly beaten me in races.) She, like me, did not recognize that her behavior was symptomatic of anorexia until much later in her life. When she tells this story now, she cries.

"I was in a terrible headspace. I can't put it into words," she says. "It was just really, really bad."

Conley and I, along with the five other female athletes I interviewed, suffered from a form of eating disorder not yet widely studied, which I call a "temporary eating disorder," and which I will attempt to define and thoroughly characterize throughout this essay. While long-term eating disorders—such as anorexia nervosa or bulimia nervosa—are well-chronicled and well-studied in the academic realm, temporary eating disorders are, as their name suggests, more fleeting and therefore more difficult to pin down. This results in a lack of scholarship and a subsequent lack of diagnosis among female athletes.

On the surface level, temporary and long-term eating disorders seem almost identical. Both are influenced by certain psychological tendencies and cultural factors, which may exacerbate an individual's susceptibility. Indeed, the most telling symptom of both disorders is the presence of disordered eating, including restrained eating, compulsive eating, or binge eating. As seen above, disordered eating increases the likelihood that a female athlete will develop one or more components of the female athlete triad. And as with the female athlete triad, these disorders are most common among athletes in sports that emphasize leanness, such as running and dance.

I believe the key difference lies in the motivation. Athletes with temporary eating disorders are performance-oriented; athletes with long-term eating disorders are image-oriented. While these two disorders may seem similar, the way in which an athlete channels her mental, physical, and external influences will inform her risk of developing a temporary

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<sup>1</sup> Name has been changed to protect identity

eating disorder over a long-term one, or vice versa. The time frame of the goals set by the athlete will dictate the nature of the eating disorder. Long-term eating disorders are such diagnosed if symptoms have been observed and sustained for more than three months, whereas the symptoms of temporary eating disorders generally fade after one or two months; thus, if an athlete is striving for a certain, attainable goal or for a limited period of time, they are more likely to develop a temporary eating disorder. As a result, temporary eating disorders may be common in certain arenas—among high school athletes, for example—while long-term eating disorders more heavily affect collegiate or professional athletes.

“In high school, I was dancing for the biggest roles,” says Ally Brown<sup>2</sup>, who, at seventeen, was recruited by the San Francisco Ballet (she ultimately decided to attend Stanford instead). “My dance teachers never pressured me to lose weight, but I stopped eating anyway. Ballet is all about your body. The better I looked on stage, the more parts I ended up getting.”

“I was winning every race, which, for a small-town cross-country team like mine, doesn’t happen often,” adds Conley. “I couldn’t just stop winning. It was the first time I really felt in control of my body.”

The desire for control is one of two primary psychological factors common to both temporary and long-term eating disorders. In sports such as ballet, where it is imperative to control every movement and gesture, the percentage of athletes suffering from long-term eating disorders is particularly high, with 6.5 percent diagnosed with anorexia nervosa and 14.2 percent with bulimia, compared to 0.9 percent of women diagnosed with anorexia nervosa and 1.5 percent of women diagnosed with bulimia in the general population (Toro et al., 2009). Furthermore, it is important to note that these statistics are likely lower than the reality, as only about 35 percent of sufferers ever receive treatment for their disorders (“Eating Disorders,” 2018).

The second common factor is the tendency toward perfectionism, which can be beneficial to an athlete’s performance but also predispose her to an eating disorder. Although it is impossible to quantify perfectionism, many researchers use the Eating Disorder Inventory Perfectionism Scale (EDI-P) to assess perfectionism levels on two dimensions: self-oriented and socially prescribed (Lampard et al., 2012). The former represents the belief that perfection is required in personal performance, and the latter that perfection in personal performance is expected by others. It has been generally observed that self-oriented perfectionism is more strongly associated with the development of long-term eating disorders such as anorexia and bulimia nervosa. This concurs with the work of Jayne Fulkerson and her colleagues at the University of Minnesota, who found that perfectionistic female athletes are more likely to strive for thinness, particularly—as with the female athlete triad—in sports that emphasize leanness (Fulkerson et al., 1999).

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<sup>2</sup> Name has been changed to protect identity

However, there is a common thread among the athletes I interviewed, regardless of sport—two runners, three dancers, one figure skater—that aligns much more with the second dimension of perfectionism: the socially prescribed form, or the belief that perfection in personal performance is expected by others.

I wanted to be faster. I wanted to be the best. I wanted to win. As with Brown, who thought she had to be perfect in order to obtain more leading roles, and Conley, who believed she had to continue winning for the sake of her team, temporary eating disorders center around performance, not around self-image.

Here, we see the main psychological point of divergence between temporary and long-term eating disorders—the presence of low self-esteem, which happens to be one of the most commonly cited factors in the development of long-term eating disorders among athletes. In her study of professional ballerina dancers, Wendy Oliver, choreography and professor of theater and dance studies at Providence College, observed that “on a good day, ... [dancers] look good and feel good,” whereas a bad day may engender “a continuous litany of self-criticism about her technique and appearance” (Oliver, 2005). Similarly, David Altheide and Erdwin Pfuhl, Jr., sociology professors at Arizona State University, cited “perception of one’s physical self” as a major motivating factor for runners. They write: “The decision to run often entails a desire to effect a transformation of self in physical terms” (Altheide & Pfuhl, Jr., 1980).

In both cases, we see a deep desire for transformation on the physical level. Athletes with long-term eating disorders are heavily affected by their need to look good, meaning that much of the negativity and “self-criticism” mentioned by Oliver is internalized and channeled toward the self (Oliver, 2005). Yet low self-esteem is rarely mentioned among athletes suffering from temporary eating disorders. While these athletes carry similar psychological tendencies, they channel their negativity toward their performance and its perception by others—for example, Conley’s notion that she would be letting her team down if she stopped winning. I speak from my own experience as well—I was never particularly concerned about my physical appearance when losing weight. Rather, it was the desire to keep dropping time and running faster that motivated me to cut calories. Whenever I failed to set a personal best in a race, I pushed myself harder to succeed in the next one.

In rare cases, we see the confluence of performance and self-image, which can be particularly devastating. Consider the case of American ballerina Heidi Guenther, who died at age 22 of cardiac arrest, likely due to her eating disorder. In 1995, two years before her death, Guenther was told that she needed to lose five pounds or risk the termination of her contract at the Boston Ballet. Her flaw? According to her boss, she was “overweight and her flesh jiggled” (Oliver, 2005).

Guenther, when she died, was five-foot four and weighed 93 pounds. In June 1995, she wrote this note to herself:

“They always pick people for parts who are skinny and you only have until February to prove yourself! Be professional, stay thin and in shape. Lose weight and work your ass off and you’ll get there and you’ll feel good about yourself” (Oliver, 2005).

A more noticeable difference between temporary and long-term eating disorders among female athletes lies in the combination of cultural factors that influence the development of each. Many studies examining long-term eating disorders cite the danger of beauty conventions and body image standards, which are affected by an individual’s physical environment and its associated cultural norms.

This is most easily seen from a regional perspective. The prevalence of long-term eating disorders among female subjects in Western countries is more than double that of non-Western countries (Makino et al., 2004). Angela Hulley, a professor of biological sciences at the University of Leeds in the United Kingdom, compared the presence of long-term eating disorders in a study of elite female runners from the U.K. and Kenya. She and her fellow researchers found that a significantly higher proportion of British athletes experienced past or present long-term eating disorders, with 19.5 percent of British women suffering versus 4.4 percent of Kenyan athletes (Hulley et al., 2007). They hypothesized that athletes from the U.K. were “more aware of the ideal slim/toned body shape an elite runner should have, which was emphasized by media coverage, medical screenings, and through sponsorship from equipment providers” (Hulley et al., 2007).

The primary cultural factors that influence temporary eating disorders, however, lie in societal values of success, not beauty. A study of successful Division I programs in the U.S. measured athletic success using three variables: regular season wins, tournament appearances, and tournament wins (Rhoads & Gerking, 2000). From these variables, we can deduce that, when it comes to sports, Americans value winning—and winning frequently. At the risk of generalization, I claim that female athletes who develop temporary eating disorders are primarily affected by these American ideals, which stem from deeply-rooted Western values that measure achievement of an “external nature,” such as money, fame, career, or popularity (“The Shocking Differences Between East & West Values”). These athletes do not internalize beauty conventions and body image standards. Instead, they internalize notions of athletic success.

Jena Wong<sup>3</sup>, a former figure skater who gave up her Olympic dreams to come to Stanford, tells me that, at the peak of her career, she was skating three to four hours a day, competing nine months out of a year, and barely eating.

“You have to be in top physical condition,” Wong says. “Everything I put in my body, there had to be a reason I was putting it there. I guess somewhere along the way I decided it was better to stop eating much at

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all, because I didn't want to risk messing up and jeopardizing my performance."

Did she ever feel pressure from external sources, such as television or media, to act this way?

"Maybe," she says. "But it was mostly about not letting down my coach, or my parents, or myself. I cared too much about how I did in competitions."

I asked every woman I interviewed about her personal definition of athletic success. The answers are remarkably similar. Each woman cited success in her sport as a key motivating factor to her training, especially when this success was frequent or continuous. Conley and Hannah Osborne<sup>4</sup>, who also ran cross-country and track in high school, agreed that their ideas of success were dependent on their performance in races.

"Winning was key," says Osborne. "And once you start winning, your coaches look at you differently."

Brown admits that, "while looking good was a big part of it," she was highly driven by "my parents, who were always very proud of me, and especially excited when I got to dance big roles."

Every interview, moreover, emphasizes the role of spectators in performance. This is not a coincidence, but rather a product of American sports culture, and reflective of broader Western ideals. Kenneth Macri, in an article for *Inquiries Journal*, argued that Americans construct "types" of athletes based on their "social value"—that we value winning because it provides a true "sense of achievement" (Macri, 2012). Even deeper, we crave perfection, and fully believe that perfection is expected by others, especially in sports; in essence, the mental foundation for the temporary eating disorder is embedded in the American psyche.

Yet why such a desire for perfection? In a monograph entitled "The Values Americans Live By," L. Robert Kohls, former director of training for the U.S. Information Agency in Washington D.C., listed "personal control over the environment" as first a ranking of American values (Kohls, 1984). "In the United States," he wrote, "people believe every single individual should have control over [his/her] environment" (Kohls, 1984).

Athletes demonstrate the utmost personal control. The elevated status of sports in American society indicates just how much we value athletes' command over their physical environments—both their bodies and their immediate surroundings. And with society's ideas of achievement tied so closely to perfection in athletic performance, it is not at all surprising that so many of the women I interviewed found it difficult to separate themselves from these deeply ingrained notions of success.

"Take it from me," says Conley, with a hint of a smile. "Winning—it's the ultimate thrill."

I and the majority of my interviewees were lucky enough that our temporary eating disorders followed exactly their name—temporary. Once

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the season or competition or high school career had ended, so did our unhealthy eating habits. And for most of these women, full understanding of and reconciliation with their eating disorders came months or years after the incident.

“It’s taken me a really long time to understand what happened,” says Miriam Weber<sup>5</sup>, who toured with a competitive dance team throughout high school. “I think a big part of that blindness came from my own preconceived notions about eating disorders. From what I’ve seen on TV and in movies, eating disorders are about disliking your body, about wanting to look skinnier and prettier. That never crossed my mind. I just wanted to dance better.”

This lack of awareness can be pervasive and, if left unchecked, truly harmful. In fact, ignorance, coupled with certain circumstances that I will discuss below, can actually lead to the transition from a temporary to a long-term disorder.

In a study of long-term eating disorder prevalence in female collegiate athletes, Christy Greenleaf and her colleagues at the University of Wisconsin cited “weight-related pressures, such as team weigh-ins and revealing athletic attire,” as the primary factors influencing these eating disorders (Greenleaf et al., 2009). This observation is in line with the psychological motivations behind long-term eating disorders—that is, it seems that these collegiate athletes are chiefly image-oriented. They believe their weight and appearance matter and are compelled to maintain a certain body standard.

However, Greenleaf’s study also presents an interesting hypothesis that seems to fit much better with the performance-oriented model of temporary eating disorders. After using exercise as a weight control variable for her research, she conjectured that, since “coaches often view additional workouts as a sign of the athletes’ dedication or commitment to improving their sport performance,” athletes might train excessively in order that their coaches deem them a “good athlete” (Greenleaf et al., 2009). Thus, both performance and image become motivating factors.

This presents a turning point for the temporary eating disorder. Unlike high school, where seasons begin and end in the span of three months, collegiate sports require more intense commitment on the athlete’s part. In this circumstance—when an athlete’s sport becomes her career—a temporary eating disorder can transition into the long term. Such is the case of Sarah Mason<sup>6</sup>, who took two years’ leave of absence from Stanford to dance on Broadway before returning last fall to continue her schooling.

“Dancing in high school was intense, yeah, but it was also high school,” Mason tells me. “Broadway, on the other hand—that was about as intense as you could get.”

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Mason and the other dancers often had about a week to learn the moves for a new show, training five hours a day before opening night. During this time, it was essential for Mason to get her body into peak physical condition, so much that she regressed into a long-term eating disorder.

“In high school, I would go through phases where I didn’t eat as much, especially leading up to a big dance show or competition,” she says. “But when I was in the city, it’s like I was a completely different person. Our choreographer was super awesome and encouraging, never once telling us that we needed to look or be a way that we weren’t, but in my head, I equated my performance to how I looked. I stopped eating because I thought I had to be toned and strong and skinny all at the same time—that was the only way I’d dance well.”

Psychology professors Susan Byrne and Neil McLean, in their study of long-term eating disorders in elite athletes, found that eating disorders were almost twice as prevalent in athletes than in non-athletes, with especially high percentages in the “thin-build athlete group,” including gymnasts, ballet dancers, and long-distance runners (Byrne & McLean, 2002). Byrne and McLean wrote that, at an elite level, athletes faced “particularly intense pressure to conform to an ideal body shape” (Byrne & McLean, 2002). They concluded that for many of the elite athletes studied, disordered eating represented “a rational response to pressure to achieve a body shape which will ensure optimal performance”; that is, long-term eating disorders reflected a “dedication to the sport” (Byrne & McLean, 2002).

In other words, at an elite level, image begins to matter as much as performance. Every female athlete I interviewed, excluding Mason, reached the peak of their athletic careers in high school, dropping off once they started college. Thus, their temporary eating disorders did not transition into the long term, as these athletes no longer felt the pressure to excel athletically and to continue improving in their sport.

Mason, on the other hand, entered Broadway, a highly elite dance environment in which she was not only required to perform exceptionally on a daily basis, but she was also seen and assessed by thousands of viewers a week. Although she is just one example (and thus her experience cannot be generalized to the female athlete population as a whole), it seems that Mason’s transition into a professional environment exacerbated the symptoms of her eating disorder, affording additional pressure to hone and perfect her body alongside her performance—and causing the temporary to become long-term.

This is not to say, however, that temporary eating disorders are not damaging, since they share some maladaptive characteristics with long-term eating disorders. Studies of long-term eating disorders have shown that they can become cyclical in nature, especially when affected by recurring stress patterns or mental health concerns that offer no recovery or escape to the victim (“How Eating Disorders Develop and Implications

for Human Development,” 2008). This phenomenon is particularly noticeable in those who suffer from bulimia nervosa, in which episodes of binge eating lead to extreme guilt, purging, stringent evaluation of self-image, and repetition of the process, quickly becoming a vicious cycle (“Bulimia Nervosa”).

Temporary eating disorders can become cyclical in a similar manner. Osborne, who ran cross-country and track all four years of high school, admits that she fell back into her disordered eating habits each time a new season rolled around.

“Being fast was just too addictive,” she says. “When I was in season, everyone expected me to win, and not eating was a foolproof way to do that. But when I wasn’t running, no one really cared, so I just... started eating again.”

This cycle of recovery and regression, when prolonged, can have similar health consequences to a long-term eating disorder. In fact, much of the reason that Wong quit figure skating was injury-related.

“By the time I was seventeen, I was spending more time off the ice than on it,” Wong says. “I had hip problems, ankle problems, knee problems, you name it. Part of that was the skating—actually, a lot of that was the skating.” She laughs. “But a lot of that was the not eating, too.”

In order to fully diagnose the temporary eating disorder, we must understand both the psychological and cultural factors that motivate this condition and the circumstances by which the temporary can become long-term. As mentioned before, a lack of awareness is key in provoking this transition; an individual’s inability to recognize their temporary eating disorder can allow it to worsen without realizing. Moreover, an athlete’s passage into the professional realm can further heighten external pressures to achieve perfection not only in performance but also in image.

So how might we raise awareness about the temporary eating disorder? How might we combat it? As emphasized in this essay, temporary eating disorders are most prevalent in high school athletes who believe their actions are symptomatic of no more than hard work and dedication to their sport. To take steps to prevent and treat this issue, we must first educate those at risk of developing a temporary eating disorder. The Annual Review of Clinical Psychology finds that eating disorder prevention programs are effective in reducing risk factors and pathology in individuals, with over 50 percent of programs enacting statistically significant change (Stice et al., 2007). Such programs are most successful when conducted by professional interventionists and offered to females over 15 years of age (Stice et al., 2007).

Personally, eating disorder prevention seems a relevant topic on which to educate female teenage athletes. When I was in high school, my cross-country team sat down every September to hear a lecture on concussions. Concussions. Perhaps the least applicable injury to a group of runners—unless we managed to slam into a couple of trees on our way down a hill.

Conley tells me that if she had known what symptoms to look for, she may have been able to stop her eating disorder before it spiraled. “I beat myself up every time I didn’t win a race,” she says. “That was worse than not eating, honestly—I hated myself for a long time.”

Mason, too, is only just beginning to repair her relationship with food. She started therapy in December and has been working day by day to improve—sometimes slowly, she says, but “always moving forward.”

“I’m never going to forget the first time I tried ice cream since I stopped eating,” she laughs. “It was a Tuesday in March, freezing cold out, and I just remember thinking, ‘Damn, is that what I’ve been missing this whole time? I can’t believe I’d do that to myself.’”

She pauses, and when she speaks again, she’s quieter. “I really hope I never have to go through that again.”

## References

- Altheide, David L., and Erdwin H. Pfohl Jr. "Self-Accomplishment Through Running." *Symbolic Interaction* 3:2 (1980): 127-144. JSTOR. Web.
- Brown, Ally (anonymous). Personal interview. 27 April 2018.
- "Bulimia Nervosa." The Center for Eating Disorders at Sheppard Pratt. n.d. Web. Accessed 7 June 2018.
- Byrne, Susan, and Neil McLean. "Elite Athletes: Effects of the Pressure to be Thin." *Journal of Science and Medicine in Sport* 5:2 (2002): 80-94. Web.
- Carbon, Roslyn. "Female Athletes." *BMJ: British Medical Journal* 309:6949 (1994): 254-258. JSTOR. Web.
- Conley, Grace (anonymous). Personal interview. 27 April 2018.
- "Eating Disorders." *The Body Project*. Bradley University. 2018. Web. Accessed 7 June 2018.
- Fulkerson, Jayne A., et al. "Eating-disordered behaviors and personality characteristics of high school athletes and nonathletes." *International Journal of Eating Disorders* 26:1 (1999): 73-79. Wiley Online Library. Web.
- Greenleaf, Christy, et al. "Female Collegiate Athletes: Prevalence of Eating Disorders and Disordered Eating Behaviors." *Journal of American College Health* 57:5 (2009): 489-496. Taylor & Francis. Web.
- "How Eating Disorders Develop and Implications for Human Development." The American Association of Christian Counselors. Published 12 May 2008. Web. Accessed 7 June 2018.
- Hulley, Angela, et al. "Eating disorders in elite female distance runners: Effects of nationality and running environment." *Science Direct* 8:4 (2007): 521-533. Web.
- Kohls, L. Robert. "The Values Americans Live By." 1984. Web. Accessed 7 June 2018.
- Lampard, Amy M., et al. "The Eating Disorder Inventory-2 Perfectionism Scale: Factor structure and associations with dietary restraint and weight and shape concern in eating disorders." *Eating Behaviors* 13:1 (2012): 49-53. ScienceDirect. Web.
- Macri, Kenneth J. "Not Just a Game: Sport and Society in the United States." *Inquiries Journal* 4:8 (2012). Web.
- Makino, Maria, et al. "Prevalence of Eating Disorders: A Comparison of Western and Non-Western Countries." *Medscape General Medicine* 6:3 (2004): 49. Web.
- Mason, Sarah (anonymous). Personal interview. 2 May 2018.
- Nattiv, Aurelia, et al. "The Female Athlete Triad." *Medicine & Science in Sports & Exercise* (2007): 1867-1882. Web.
- Nazem, Taraneh Gharib, and Kathryn E. Ackerman. "The Female Athlete Triad." *Sports Health* 4:4 (2012): 302-311. Web.

- Oliver, Wendy. "Reading the Ballerina's Body: Susan Bordo Sheds Light on Anastasia Volochkova and Heidi Guenther." *Dance Research Journal* 37:2 (2005): 38-54. JSTOR. Web.
- Osborne, Hannah (anonymous). Personal interview. 5 May 2018.
- Rhoads, Thomas A. and Shelby Gerking. "Educational contributions, academic quality, and athletic success." *Contemporary Economic Policy* 18:2 (2000): 248-258. *Wiley Online Library*. Web.
- Stice, Eric, et al. "A Meta-Analytic Review of Eating Disorder Prevention Programs: Encouraging Findings." *Annual Review of Clinical Psychology* 3 (2007): 207-231. Web.
- Tenforde, Adam S. et al. "Association of the Female Athlete Triad Risk Assessment Stratification to the Development of Bone Stress Injuries in Collegiate Athletes." *The American Journal of Sports Medicine* 45:2 (2016): 302-310. Web.
- "The Shocking Differences Between East & West Values." Yogamoo. n.d. Web. Accessed 7 June 2018.
- Toro, Josep, et al. "Eating Disorders in Ballet Dancing Students: Problems and Risk Factors." *European Eating Disorders Review* 17:1 (2009): 40-49. *Wiley Online Library*. Web.
- Weber, Miriam (anonymous). Personal interview. 30 April 2018.
- Wong, Jena (anonymous). Personal interview. 2 May 2018.