

Chapter I – Introduction

As I sit across a café table, I listen to women's stories materialize through the steam rising from their mugs. I watch slim fingers wrap tightly around smooth white ceramic, cradling the vessel like something tender they at once fear dropping but also cling to as an anchor, something solid in a discussion of the nebulous and uncertain. I watch eyes stare down in self-reproof, intently focused on the black depths of their coffee, and eyes that spark fiercely with outrage and frustration as their gaze collides with my own. One by one, the accounts emerge. Some plod forth from numb monotone voices, others tumble out with exuberance and zest, and still others lurch through choked tears — encounters either painfully personal or wrapped in the emotional cloak of familiarity woven in witnessing a close friend struggle. While I include here only words that were spoken — that women wanted captured over the café din by the microphone of my handheld recorder — even more potent were the silences, the pauses that lengthened like afternoon shadows as women grasped for the right words, the ideas that went unsaid, the truths that remained locked up tight by shame and fear.

Close attention to a group of women and their embodied experiences of disquietude can provide powerful windows for understanding what the pursuit of performance, a driving force of our society, places at risk. Lived experiences represent the intersection of personal and societal forces. By working across these boundaries, we can move far beyond psychopathology to seek cultural currents guiding decisions and choices and also bring light to the shadowed side of endeavors we hold up in admiration. This thesis engages with transdisciplinary scholarship in order to delve into the issue of disordered eating in the sport of distance running. Though we have long recognized unusually high rates of eating disorders among specific athletic disciplines, the perspectives of these athletes has not been thoroughly explored nor discussed. This work ultimately takes an anthropological approach to examine the culture of elite distance running and its relationship to disordered eating by illuminating the lived experiences of elite female distance runners. Drawing from narratives collected through semi-structured interviews at both the collegiate and professional level, I seek to build an understanding of how disordered eating may be permitted, encouraged and perpetuated within the sport. What I present here is a glimpse into

a conversation fraught with missteps and anguish, affliction and guilt. The storytellers set the pace, serving as the ultimate authorities on an ambiguous topic that lends itself to criticism and precludes external comprehension.

In the following pages, I illustrate and expound not a clinically diagnosed pattern of pathology but rather an ‘extraordinary’ (Jenkins 2004) experience that manifests from ordinary and normalized conditions, pressures, and expectations. Through my usage of the terms *disordered eating* and *eating disorder*, I do not mean to parallel the diagnostic logic or connotations associated with the psychiatric literature, nor am I claiming that the athletes described herein necessarily meet strict diagnostic criteria.¹ Historically, the medicalization of eating disorders has constructed an aura of ‘otherness’ around such conditions; the leading discourse disengages from the individual’s experiences and values, allowing lingering vestiges of Cartesian dualism to sever not only mind from body, but individual from society. In casually applying such diagnoses to those suffering, we preclude ourselves from “any realistic social and cultural understanding of the disease” (O’Connor & VanEsterik, 2008, pp. 6). Thus, in using these clinical terms, I intend to describe not a specific series of symptoms, but a set of behaviors reciprocally informed by the societal patterns and forces they are nested within.

Similarly, throughout this thesis, I use *culture*, a word commonly employed to fill gaps in our understanding of relevant social factors that present in specific manners. I challenge the conception of culture as a nebulous monolith, guiding human action, behavior and thought in a plane outside of our conscious awareness. Rather, by *culture* I intend to conjure the notions explicated by Jenkins (2004; 2015) and Sapir (1994). I understand *culture* to represent a malleable and ever-evolving coalescence of social interchange, historical context and subjective experience; rather than a concrete set of social motifs that a given people conform to, *culture* refers to dynamic “human processes of attention, perception, and meaning that shape personal and public spheres in a taken for granted manner” (Jenkins, 2004 p. 7). As argued by Sapir

¹ The conditions that immediately come to mind in response to the phrase *eating disorder*, namely anorexia nervosa (AN) and bulimia nervosa (BN), are defined by a specific set of criteria (American Psychological Association [APA], 2013). These diagnoses exclude the vast majority of disordered eating that occurs, often lumped into the more general category Eating Disorder Not Otherwise Specified (EDNOS) (Beals, 2004; Torstveit, 2008; Johnson, 1999; Shisslak, 1995). Most of the disordered eating observed among athletes falls into this gray area, often meeting only a few of the outlined criteria and thus classifying as ‘sub-clinical’ (Werner, Thiel, Schneider, Mayer, Giel & Zipfel, 2013). It remains irrelevant, however, whether or not the unhealthy patterns of athletes would ever fall into a medical diagnostic category, as the emotional and psychological tolls of these disorders can be equally severe; more important is recognizing the ways these issues alter how women relate to food and their bodies.

(1994), and as we shall see in later discussions of stigmatization, culture emerges at loci of interpersonal interactions, guiding the way we relate to one another and ourselves.

Finally, I introduce the term *nutrition* as an emic category, so defined by the participants who contributed to this work. Women most often used the term to refer to a relationship with food over a given period time. Those affiliated with athletics and sports physiology commonly use *nutrition* in reference to the categories and quantities of food that ought to constitute an athlete's diet. Participants' use of *nutrition* to mean 'dietary habits' likely represents an artifact of such dialogue.

Disordered Eating in Distance Running as Cause for Concern

With the highest mortality rate of any mental illness, eating disorders have emerged as arguably the most dangerous mental health condition in the United States (Arcelus et al., 2011; Meahler & Andersen, 1999; Steinhausen, 2002; Sullivan, 1995). Although the precise prevalence of disordered eating among college athletes is obscured by the complicating factors associated with self-reporting and resistance to seeking professional help (Greenleaf, Petrie, Carter, & Reel, 2009), prior research has revealed that distance running is one of the disciplines at highest risk of "pathogenic weight-control behaviour" (Dosil & González-Oya, 2008; McLester, 2014; Quatronomi, 2008; Beals and Manore, 2002). These eating habits can, in the long run, degrade an athlete's sense of self-worth, physical well-being, and athletic experience, in addition to creating serious health consequences down the road after her competitive career ends.

Weight matters in running: a simple truth deeply complicates the issue of disordered eating in this specific athletic context (Teunissen, 2007; Taylor, 1994; Taylor & Kram, 1990). A drop in weight from the loss of *excess* adipose tissue confers a competitive advantage by promoting biomechanical efficiency. To oversimplify, a smaller mass can be carried further and faster with less energy (Fitzgerald, 2013). This is not a closely guarded secret of the sport's elites; popular running publications such as *Runner's World* magazine regularly tout such information (MacMillan, 2014). Because running is a low-weight performance sport (Dosil & González-Oya, 2008; Martinsen, Bratland-Sanda, Eriksson, & Sundgot-Borgen, 2010), many athletes observe the benefits in themselves; faster workouts or races accompany a period of weight-loss. This may make it tempting to continue losing weight, assuming times will continue to improve. Unfortunately, this is not the case.

Past a certain point — a blurry line differing from person to person and therefore incredibly difficult to pinpoint — an athlete dips below her healthy body mass and physical ramifications begin to manifest. Research investigating the medical and scientific effects of calorie restriction in female endurance athletes has led to new diagnoses such as the Female Athlete Triad and Relative Energy Deficiency in Sport (RED-S) (Mountjoy et al., 2014; Marcason, 2016). These diagnoses lay out a set of standard symptoms including low BMI, restrictive eating, loss of bone density, and absence or interruption of menses, all of which can accompany women engaged in intense, elite athletic events (Mountjoy et al., 2014).²

Although a review of all health consequences of energy deficits and the Triad extends beyond the scope of this work,³ I will discuss a few here. First, the loss of adipose tissue triggers a cascade of hormonal consequences, including the halting of growth and cessation of menses (Bullen, 1985).⁴ These are adaptive responses of the body to starvation and physical stress; energy is redirected from growth and reproduction to maintaining bodily functions. The loss of menses, termed secondary amenorrhea, is common among elite female athletes, also due to rapid increases in training intensity (Fourman & Fazeli, 2015; Gordon, 2010).⁵

Endocrine function is crucial not only for growth and reproduction but also for amassing bone mineral. Developing women accrue bone mass during their first eighteen years of life,⁶ after which bone density declines continuously over the remainder of the lifespan, accelerating after menopause (Baxter-Jones, Faulkner, Forwood, Mirwald, & Bailey, 2011). As levels of key hormones drop and nutrition fails to compensate for energy expenditure from exercise, mineral is reabsorbed from the bone by the body, leading to a loss of bone mass and decreased bone density. The medical literature refers to this condition as *osteopenia* and, in its more severe form, *osteoporosis*. Reduced bone density raises a woman's risk for stress fractures and other injuries

² The name RED-S is more commonly employed today to denote that these conditions are not specific to women; many male athletes also suffer from this condition, though much more research is needed in this area.

³ A more complete description can be found elsewhere (Nattiv, 2007 and Barrack, 2013).

⁴ Leptin is a key primary regulator hormone, responsible in part for maintaining the levels of other hormones including estrogen and growth hormone. It is produced by adipose tissue itself, so its levels drop along with adipose loss. This leads to a subsequent drop in the production of both growth hormone and estrogen. If this occurs early enough in an athlete's career, a drop in growth hormone can result in stunting that may never be recovered (Karsenty 2006; Thomas, Burguera, Melton, Atkinson, O'Fallon, Riggs & Khosla, 2001).

⁵ This is another adaptive response, evolved over time to prevent a woman from becoming pregnant and being unable to support the child (Fourman & Fazeli, 2015; Gordon, 2010). If weight loss or high training intensity occurs earlier in development, the woman may never begin a menstrual cycle — a condition referred to as primary amenorrhea (Gordon, 2010).

⁶ This is an approximate estimate — experts typically suggest a range of 17 to 22 years, differing among individuals (Baxter-Jones, Faulkner, Forwood, Mirwald, & Bailey, 2011).

(Mountjoy et al., 2014; Marcason, 2016). The period of life in which a young female athlete is competing overlaps with the crucial window for amassing bone mineral; if that is sacrificed, it may never be recovered or compensated. While one might assume this would represent an obvious concern for athletes, families, and coaches, the sport has been slow in generating awareness. Effects such as osteopenia do not significantly increase stress fracture risk for an extended period of time, so a relative energy deficit can persist for many seasons, or even years, without any alarming indicator of the ongoing damage within the athlete's body (Mountjoy et al., 2014; Marcason, 2016).

Bone-related injury is not the only risk; when the adipose mass that is so critical to endocrine function has been depleted, the body typically enters a stress response related to starvation and hypoestrogenism, with a number of physiological pathologies (Rickenlund, 2005; Vanheest, 2015; DeSouza, 2004). The caloric deficiency signals the body to begin breaking down skeletal muscle, leading to musculoskeletal imbalances and impairing muscle recovery. Endurance and coordination suffer, and athletes become more prone to strain-related injuries (Mountjoy et al., 2014; Marcason, 2016). Those who begin struggling with these issues early on often suffer from college careers punctuated by repeated injury. Each of these injuries can isolate her from her teammates and pull her farther from her goals, resulting in disenchantment, frustration or burnout.

Because many of the symptoms of energy deficits (menstrual irregularity or amenorrhea, constant fatigue, repeated injury) have been normalized within endurance sports, these indicators tend to receive only a fraction of the concern they warrant. Instead of raising crucial red flags, these patterns are taken for granted as merely 'coming with the territory' of elite running, and questionable practices go unexamined.

Background: Existing Work Within This Realm

Several academic disciplines have approached the issue of disordered eating, each bringing to bear a unique perspective and knowledge-base while seeking to provide an explanatory framework for the development of such potentially painful and damaging patterns. In order to capture as complete a picture as possible, I have immersed myself in a multidisciplinary body of scholarship, subjecting each to cultural critique. Methodologically and epistemologically these approaches vary, thus capturing different angles of an issue deeply

entangled in culture, socialization, physiology, personality, learning, interpersonal interactions, and psychopathology.

The field of psychology has invested immense academic energy and resources into exploring disordered eating (Cherin, 1981; Steiner-Adair, 1986; Roehrig & McLean, 2009; Paulson & Rutledge, 2014), body image disturbances (Darlow & Lobel, 2010; Fitzsimmons-Craft et al., 2012; Feingold & Mazzella, 1998), overachievement (Covington, 1992; Duda & Nicholls, 1992; Hall et al., 2007) and perfectionism (Chrisler, 2008; Flett & Hewitt, 2005; Gotwals, Dunn, & Wayment, 2002). Valuable insights into the factors underlying and motivating the development of these destructive patterns specifically in sport (Sundgot-Borgen, 1994; Sundgot-Borgen & Torstveit, 2004; Currie, 2007; Anderson, Petrie & Neumann, 2011; Greenleaf, Petrie, Carter, & Reel, 2009) has allowed for the publication of a body of literature to educate coaches, athletic staff and nutritionists to better identify athletes potentially at risk for an eating disorder (Thompson & Sherman, 2010; Brown, 2014). By providing information regarding diagnoses and viable treatment and counseling options, this work helps professionals in recognizing and handling eating disorders.

While psychology represents a core foundational body of literature, we must consider the ways in which the dominance of this field and its role in leading the conversation around these patterns has simultaneously constrained our understanding. While helpful in explicating these patterns of psychopathology, by classifying them as ‘disorders’, the field positions us perilously close to determinism; it pushes us towards overbearing assumptions of individualized predispositions, losing sight of the nuanced ways in which women are socialized into a self-view especially susceptible to these attitudes.

Sociological perspectives have taken into account the process of socialization (Fredrickson *et al.*, 1998; Freedman, 1986), layered on top of notions of personality expounded by psychology, which might augment one’s likelihood of developing an eating disorder. Thus, sociology helps explain how development and acculturation to a society shape women’s views of themselves and their place within larger interpersonal networks (Garner & Garfinkel, 1980; Hughes & Coakley, 1991). Feminist work surrounding weight-control behavior tackles similar discussions, but from a gendered perspective, in order to illustrate and account for the ways these patterns inevitably arise from social constructs and systems that oppress women (Brumberg, 1997; Castelnovo & Guthrie, 1998; Roberts & Waters, 2004; Saltzberg & Chrisler, 1995;

Vandedbosch & Eggermont, 2012). At the same time, by focusing our attention primarily on society and structure as a whole, these approaches limit our ability to intimately scrutinize their ramifications for individual lives.

The anthropological lens (O'Connor & Van Esterik, 2008; Gabrielli et al., 2015; Greenhalgh, 2015) used to conduct and present this work confers unique advantages over other approaches as it presents an opportunity to both cast a wide net in pulling from these various disciplines and simultaneously plunge deep into the profound insights unique to individual lived experience with an ethnopsychological perspective (Lester, 2004). Beginning with Anne Becker's classic study on the effect of television on body-image in Fijian adolescent girls (Becker et al., 2002), the cross-cultural understanding conferred by this discipline has challenged us to interrogate and rethink categories traditionally defined by Western thought. Disordered eating habits arise from a variety of culture-specific, situation-specific, and individual-specific sources (Gordon, 2000); each woman's reality is shaped both by broad, societal motifs as well as the physiological processes and anomalies of her body (Garner & Garfinkel, 1980; Lester, 2004). Thus, the anthropological approach used here seeks to span the spectrum of contributing influences, across culture and biology.

Western consumer culture transforms the body from a lens for experiencing the world to an object displayed for a given set of observers (Fredrickson & Roberts, 1997; Roberts & Waters, 2004; Gabrielli, 2015). It becomes a tool — a means to an end. A 'sports ethic', particularly salient in endurance sports, promotes sacrifice and abnegation (Hughes-Coakley, 1992; Brewer et al., 1993; Malcom, 2006). Furthermore, within the U.S. specifically, the moralization of thinness, self-discipline, and self-denial produces ethnopsychological orientations to 'control'. Thus, in interpreting bodies, it is not only perceptions of *attractiveness* at stake, but rather perceptions of *character*. We might understand disordered eating as a desire to be *good* more so than a desire to be *thin* (Hughes & Coakley, 1991). In many ways, these moral weightings allows us to excuse or overlook practices occurring in the shadows of the performance spotlight that might otherwise be called into question when considering athlete health and well-being.

Significance

Disordered eating among endurance athletes have received little to no anthropological attention, though knowledge of its physiological harms continues to grow. Few accounts exist of the lived experiences of female athletes with eating disorders aside from blogs and books such as Rachael Rose Steil's *Running in Silence*. These personal accounts provide valuable insights into the ways in which an athlete's mental, emotional, and physical health together are all affected by restrictive diet. Yet, they tend to remain narrowly focused on the individual author and temporally constrained to a retrospective lens; college athletes rarely share their experiences or admit to issues before their running career ends. This represents a significant gap in the literature and knowledge surrounding this pervasive issue.

The narratives collected for this work offered athletes an opportunity to reflect on the inherent tensions surrounding diet and how those tensions have shaped their competitive experiences. Despite its prevalence in distance running, little dialogue around disordered eating exists within the running community. Similarly to other 'leanness sports,' the normalization of radically slender body types and irregularities in eating behaviors lead to tacit acceptance by coaches and athletes (Dosil & González-Oya, 2008; Sundgot-Borgen, 1994; Sundgot-Borgen & Torstveit, 2004; Smolak, Murnen, & Ruble, 2000).

Through attention to women's narratives of disordered eating, we will see how these experiences carry broad implications for the larger societal contexts in which they are situated. My interpretations will engage trans-disciplinary scholarship in anthropology, sociology, psychology, and gender studies. In contrast to previous portrayals of individuals suffering from these types of disorders, I will argue instead that these women are not an example of deviance from established norms (Hughes & Coakley, 1991), but rather the ultimate example of conformation to societal expectations and ideals; their behaviors are logical extensions of our culture's values.

Ultimately, if we hold that a culture is constituted through interpersonal interactions (Sapir, 1932; Sapir, 1994), the ability to shift individual attitudes provides us an avenue to enact change. However until we comprehend how and why disordered eating has gained such a hold among these particular athletes, our attempts to foster long-term health will be impeded. I hope the results can and will be used by collegiate athletic departments to alter and improve the systems currently in place to protect athletes from developing these behaviors and support those

already struggling with disordered eating. It may be further extended to inform coaches, at the high school and collegiate levels of distance running, about the issue of disordered eating among young female athletes.

Overview

This work begins by following the trajectories of young female athletes entering college, identifying the multitude of ways their experiences and surroundings increasingly nudge them towards developing unhealthy relationships with food. Beginning with unrealistically high expectations for their freshman years based on past successes, the rapid social transition that accompanies the move to college creates an enormous stress for young athletes. The collegiate environment brings an entirely new set of pressures, and the transition to a new phase of life and social group can leave them feeling as though they have lost control over many aspects of their lives. An ethnopsychological orientation to control, characteristic of U.S. culture, causes athletes to grasp onto nutrition as a newfound focus as they attempt to regain sensations of agency over their performances. In this search for control, women commonly turn to those they admire for guidance in achieving athletic status. As they compare their bodies to those of intensely lean teammates and the elite professional running community performing at a higher level, athletes' self-images suffer. Bombarded from childhood with messages about dieting — how to whittle away at oneself to reach an unachievable “skinny” — young women may make assumptions about eating behaviors necessary to reach high levels of competition, rather trusting training alone.

As athletes make honest attempts to eat healthier or shed unnecessary weight, they may unintentionally slip into restrictive patterns that are difficult to escape. Concerns with nutrition can quickly morph into obsessive behaviors that are both psychologically and physically damaging. Compounding those effects, severe or prolonged nutritional restriction often results in injury. Injuries isolate athletes from both their sport and the social support of their teammates, resulting in further negative repercussions for athletes' mental health. If and when women are able to recognize and acknowledge their struggle with nutrition and seek recovery, periods of relapse plague even the best intentions.

Relative to the amount of harm inflicted by these cycles on athletes' physical, mental and emotional health, little time is dedicated to addressing them. The topic of disordered eating

remains shrouded in the silence of stigma, perpetuated both by women's hesitancy to express concern about others, as well as sufferers' sense of shame or weakness. Further complicating these conversations, denial, judgment and impersonal framing impede existing conversations. Coaches, too, play key roles in shaping team cultures surrounding this issue, but gender dynamics foster resistance to raising the subject. These factors coalesce to block productive dialogue in this area.

The stigmatization of this issue may appear at first intuitive, as we see similar phenomena of silence with many forms of mental illness. However, given the number of female runners who struggle with diet over the course of their careers, we begin to wonder how something so damaging can remain simultaneously normalized and stigmatized. In scaling up our analytical lens to situate distance running within broader American culture, we see how disordered eating, rather than an anomaly, in reality represents a manifestation of larger pressures and historical trends at play in shaping image ideals and contemporary expectations of women.