Setting the Stage

Eating Disorders (EDs) are “behavioral conditions characterized by severe and persistent disturbance in eating behaviors and associated distressing thoughts and emotions.” EDs frequently co-occur with other mental health disorders, such as mood disorders, anxiety disorders, obsessive compulsive disorders, and substance abuse problems, as well as neurodevelopmental disorders such as autism spectrum disorder and attention-deficit/hyperactivity disorder. LGBTQ+ individuals are also more vulnerable. Importantly, EDs are recognized as one of the most fatal mental illnesses in the US. A recent US study estimated that between 2018 and 2019, one person died from an ED every 51.5 minutes. The report projected that 28.8 million US people will suffer from an ED at some point in their lifetime, and women were two times more likely to have an ED than men. Furthermore, the financial cost per year associated with EDs—including health system costs, productivity and efficiency losses, and informal care—is estimated to be $64.7 billion. Conversion estimates predict that 278,266 Utahns (or 9.0%) will experience an ED.

Given the mortality risk, higher rates among women, and the predicted prevalence of EDs in Utah, the Utah Women & Leadership Project (UWLP) seeks to better understand what may be affecting this public health crisis in our state. This research snapshot focuses on the following key areas:

1) An overview of EDs among women—globally, in the US, and in Utah;
2) Factors affecting women with EDs; and
3) Recommendations to prevent and treat EDs in Utah.

Overview of EDs

Types of EDs: According to classifications in the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) and the International Statistical Classification of Diseases and Related Health Problems, the various types of EDs include anorexia nervosa (referred to as anorexia), bulimia nervosa (bulimia), binge-eating disorder (BED), avoidant restrictive food intake disorders (ARFID), other specified feeding or eating disorders (OSFED; formerly known as eating disorders not otherwise specified, or EDNOS), pica, and rumination-regurgitation disorders. In addition to the classifications, other ED behaviors, such as orthorexia and compulsive exercise, have been recognized. Other ED behaviors, such as orthorexia and compulsive exercise, have been recognized.

Global Prevalence: A global review of more than 90 studies identified a trend of increasing prevalence of EDs. The ED point prevalence (proportion of EDs during a specific period) increased from 3.5% for the 2000–2006 period to 7.8% for the 2013–2018 period. America (4.6%) had a higher average point prevalence compared to Asia (3.5%) and Europe (2.2%). The weighted average lifetime prevalence of having an ED was 8.4% for women and 2.2% for men. OSFED appeared to be more prevalent compared to anorexia, bulimia, and BED. However, another review suggests BED is more prevalent than anorexia and bulimia.

National Prevalence: The National Eating Disorders Association (NEDA), a nonprofit advocacy organization, estimated that 20 million women and 10 million men in the US will experience an ED at some point in their lifetime. According to a national study analyzing data from 2001 to 2003 using DSM-IV diagnostic criteria, lifetime prevalence estimates of anorexia, bulimia, and BED were, respectively:

- 0.5%, 1.0%, and 2.8% across all people
- 0.9%, 1.5%, and 3.5% among women
- 0.3%, 0.5%, and 2.0% among men

According to a national study analyzing data from 2012 to 2013 using DSM-V diagnostic criteria, lifetime prevalence estimates of anorexia, bulimia, and BED were, respectively:

- 0.8%, 0.3%, and 0.9% across all people
- 1.4%, 0.5%, and 1.3% among women
- 0.1%, 0.1%, and 0.4% among men

Comparing the two, the prevalence of anorexia was slightly higher during the most recent period (except among men), but the prevalence of bulimia and BED was lower. It is important to note that individuals of any weight can experience EDs. Research has shown that individuals who are overweight or obese have an increased risk of disordered eating behaviors. Like global prevalence data, the national studies showed EDs were more prevalent among women than men in the US.
**Utah Prevalence:** Statewide epidemiological data about Utahns diagnosed with an ED are very limited, but several recent publications provide some indication of ED trends. A 2018 report provided by Utah’s county authorities (or Local Mental Health Authorities) indicated that 0.2% of their clients 18 years and older were diagnosed with EDs.18 Another recent study analyzed data covering 1995 to 2015 from the Utah Population Database, which links to medical records, statewide hospitalization records, and driver’s license records.19 Among the analytic sample of 4,606 individuals aged 12–55 with a known ED, 90.8% were female. Of note, EDNOS (currently known as OSFED) was the most prevalent ED diagnosis in this study (62.9%), compared to anorexia (26.2%) and bulimia (26.3%).

Looking at public high school students, the Utah Department of Health and Human Services found that between 2011 and 2013, 4.0% of female students and 1.4% of male students met criteria for being underweight and having disordered eating behaviors.20 These criteria were associated with higher rates of depression, suicidal ideation, bullying, and violence. According to a 2019 report from the American College Health Association: National College Health Assessment (ACHA-NCHA) for Utah State University (USU), more female students (anorexia = 2.3%, bulimia = 1.8%) were diagnosed or treated by a mental health professional for anorexia or bulimia than male students (anorexia = 0.7%, bulimia = 0.4%).21 The most recent ACHA-NCHA report from USU also found that more female students (5.8%) were diagnosed with EDs than male (0.6%) or trans/gender-nonconforming (4.5%) students. Of the females diagnosed with an ED, only 44.8% had sought help from a healthcare provider or mental health professional within the last 12 months.22

**Factors Affecting Women with EDs**

It is critical to understand what factors affect ED development and treatment trajectories, particularly among women. According to one national study, the average age of ED onset was between 19 and 25 years old, although onset can occur earlier or later.23 Additionally, the average length of an episode for BED (15.9 years) was significantly longer than for anorexia (11.4 years) and bulimia (12.2 years). This suggests the important developmental influence of late adolescence and emerging adulthood but also the long-term impact EDs can have on an individual.

Risk factors and triggers for EDs vary for each woman but often include negative media influences or body image dissatisfaction. Additionally, external factors such as military service24 and sport participation25 are considered risk factors of EDs. The following paragraphs review other common risk factors associated with EDs, discuss the increased risk of suicide among those with an ED, and highlight the importance of healthcare access.

**Media Influence:** Regardless of race, ethnicity, gender identity, or other biological factors, EDs can affect anyone at any life course stage.26 Nevertheless, it is theorized that EDs are a more common mental health illness among girls and women in the US because of unrealistic beauty standards toward girls and women in our society.27 Dieting, binge eating frequency and severity, weight/shape overvaluation, and feeling fat predict more persistent EDs.28 Of multiple risk factors for EDs, there is no doubt that the media has played a significant role in a woman’s body image (e.g., thin-ideal or thin-beauty internalization, body dissatisfaction), eating (e.g., dietary restriction, counting calories), and compensatory weight-control behaviors (e.g., use of laxatives and diet pills, over-exercise).29 Images found in fashion magazines and characters in television programs, movies, and toys for children (e.g., Barbie dolls) have portrayed unattainable female figures for decades, and many previous studies have sounded the alarm regarding their impact on girls and women.30

**Social Media:** In a national study analyzing 2016 data, 86.9% of young adult participants (aged 18–24) reported access to the internet through smartphones or multiple devices.31 A large majority of participants (85.1%) also reported using six or more social media sites regularly: multiple times a day, daily, or weekly. A recent Australian study warned that adolescents who engage in photo-based social media behaviors (e.g., photo manipulation, posting selfies) may have an elevated risk of EDs.32 Indeed, comparisons through social media posts can contribute to disordered eating behaviors among girls and women.33 Although there are no specific data to represent the Utah population, Utah women need to mindfully monitor their relationship with social media and body image because of Utah’s high demand for cosmetic surgery.34

**Trauma:** Traumatic life events in adulthood (e.g., sexual harassment, relationship problems) are identified as ED risk factors.35 Similarly, childhood traumatic events such as parental separation or divorce, family loss, conflicts or pressures, and other stressful experiences may spark disordered eating behaviors as a negative coping mechanism. Childhood unhappiness, low levels of maternal warmth, interpersonal sensitivity, and childhood sexual abuse are also considered ED risk factors among girls and women.36

**Pregnancy & Marriage:** Marriage and female-specific experiences such as pregnancy can impact EDs. A recent study estimated approximately one of 20 (5.1-7.5%) pregnant women in developed countries were at risk for EDs, and excessive concern about weight gain also contributed to common comorbidities, including anxiety and depression.37 For Utah women, longitudinal data from 1995 to 2015 clarified how marriage and childbearing affect the trajectory and treatment of EDs.38 Interestingly, getting married and the resultant relationship stability was a protective factor against ED-related hospital admissions and
readmissions. Childbearing was associated with reduced risk of first hospitalizations for ED-related reasons but was not associated with reduced hospital readmissions.

Suicidality: Suicide, a rising concern in the US and certainly in Utah, is often associated with various psychiatric illnesses. A recent study estimated a much higher prevalence of suicide attempts in US adults, predominantly women, with histories of EDs. Compared to those without an ED diagnosis, the odds of individuals with an ED diagnosis attempting suicide were 5.4, 6.3, and 4.8 times greater for anorexia, bulimia, and BED, respectively. Those with a history of EDs who attempted suicide also suffered from other psychiatric disorders, including major depressive disorder, anxiety disorder, panic disorder, post-traumatic stress disorder, personality disorders, and conduct disorder. In 2019, Utah’s suicide rate was sixth highest in the nation. The statewide medical record study cited earlier (spanning 1995–2015) indicated that Utah females with a known ED were at a higher risk of first suicidality/self-injurious behavior hospitalization relative to males, but were not at a higher risk of readmission.

Healthcare Access: For proper care, individuals diagnosed with EDs need treatment teams comprised of ED-trained therapists, medical providers, and registered dieticians. However, the data suggests access to care is significantly inadequate. According to a 2016 Utah Medical Education Council report, Utah had significantly fewer mental health providers compared to the national average. Although the number has since increased in Utah, frequent mental distress has also increased among adults (from 12.2% in 2018 to 17.1% in 2021). In 2021, Utah women reported more frequent mental distress than Utah men (20.8% vs. 13.3%). With regards to EDs, a study conducted during the COVID-19 pandemic in the US and the Netherlands reported that one-third of individuals with bulimia and BED reported increased binge-eating episodes and urges to binge. Of individuals with anorexia, 62% experienced more food restriction and worry about being able to follow meal plans provided by their treatment team (e.g., due to loss of income). Claire Mysko (NEDA’s CEO) stated that calls to a national helpline hosted by NEDA were up 70–80% in 2020. A CDC report revealed that the frequency of pediatric emergency department visits among females aged 12 to 17 with EDs doubled during the pandemic. Even though a quick adaptation to teletherapy provided a continuation of treatment for some individuals, researchers estimated up to 45.0% of patients with EDs were left without care during the pandemic.

In sum, media and social media exposure, involvement in certain activities, experiencing life events such as marriage and childbearing, and trauma can impact the development and trajectory of EDs. EDs are often associated with other mental health challenges, and the increased risk of suicidality is particularly concerning. Emerging from the pandemic, data showed increased ED-related needs and decreased care; it will be important to monitor ED prevalence and health care access trends.

Recommendations for Utah

EDs disrupt critical developmental years for many Utahns. The following recommendations provide ideas about how Utah can develop and increase efforts to prevent and treat EDs among women and men.

First: Early intervention efforts must be in place by high school, at the latest, before the typical onset of EDs. It is recommended that schools, colleges, and universities implement evidence-based ED prevention programs, such as The Body Project Collaborative—developed by Drs. Eric Stice and Carolyn Becker in 2012—or intuitive eating training. Lifestyle modification and dissonance-based prevention programs, such as The Body Project, can significantly reduce the onset of EDs. Ideally, more colleges and universities will develop multidisciplinary treatment teams to combat EDs among Utah college students (e.g., USU’s Student Health and Wellness Center).

Second: It is critical to increase the number of medical, psychiatric, psychological, and dietary providers who are specifically trained to treat EDs, as generalists may not be trained to treat these complex disorders effectively and may, instead, lead to harm. Training programs are expanding. For example, Dr. Liz Joy, a leading Utah ED specialist, facilitates an educational webinar series that provides hands-on education to local healthcare providers about EDs. Utah-based Center for Change also hosts webinars. NEDA offers a course specifically for physician assistants.

Third: Resources must be easily accessible for Utah women. For individuals, NEDA links to support groups and has a national helpline where trained licensed clinicians respond to calls related to ED crisis situations around the clock. Utahns can also use the national lifeline for mental health and suicide by calling or texting 988. It would be helpful for other mental health advocacy groups (e.g., National Alliance on Mental Illness: Utah) to host support groups and provide resources tailored to Utah women experiencing EDs.

Fourth: Increased awareness is necessary to shift from the thin-ideal and weight-focused culture through strategic outreach to Utah’s parents; school counselors, teachers, and administrators; and public health educators about ED-related prevention programs and resources. For example, NEDA and Intermountain Healthcare provide educational resources for various population groups.
Fifth: Local lawmakers, public health officials, and health departments can team up to increase efforts that address issues related to EDs. Initiatives could include addressing affordable access to treatment, increasing healthcare providers and prevention specialists trained in EDs (including in rural areas), and mandating prevention programs in schools. Utah also needs more comprehensive data about the prevalence of EDs as well as longitudinal data documenting treatment and outcomes. Ideally, as a first step, stakeholders in this area would start a working group to address these issues with local researchers, healthcare providers, school counselors, and public health educators.

Conclusion
Mental illness is progressively detrimental to one’s well-being if left untreated, and EDs are no exception. It is necessary to improve ED prevention and treatment initiatives in Utah and implement evidence-based prevention programs in Utah schools. Additionally, coordinated efforts are needed to track prevalence in the state. Taking these essential steps will improve the mental health and physical well-being of girls and women throughout Utah, which will strengthen their impact in their homes, communities, and in our state.

14 National Eating Disorders Association. (n.d.).
41 Udó, T., Bitley, S., & Grilo, C. M. (2019).
50 Termorshuizen, J. D. et al. (2020).
52 Body Project Collaborative. (n.d.) What is the body project? https://www.bodyprojectcollaborative.com/

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