Bryant University

HONORS THESIS

The Fallacy of Eating Disorders – It is Not Just About Being Skinny

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Submitted in partial fulfillment of the requirements for graduation
with honors in the Bryant University Honors Program
APRIL 2021

Table of Contents

ABSTRACT

Today, eating disorders have become much more prevalent and have the highest mortality rate for mental illness, yet it remains a taboo subject. As someone who came close to death from the consequences of an eating disorder, it is troubling to see the misconceptions of eating disorders. The media in its quest for sales and market share misleads audiences into believing that people with anorexia nervosa or bulimia nervosa simply desire to be "skinny". The National Eating Disorder Association (NEDA) states that eating disorders have historically been associated with straight, young, white females, but in reality, they affect people from all demographics and are not caused by any single factor. They arise from a combination of long-standing behavioral, biological, emotional, psychological, interpersonal, and social factors.

The distortion that eating disorders are solely due to body image diminishes the root cause behind an eating disorder. Misconceptions about eating disorders can lead to fewer diagnoses, treatment options, and pathways to help those who do not fit the stereotype. The public needs to be re-educated on the topic in order to understand, treat, and prevent eating disorders from occurring and/or continuing. To understand what these misconceptions are and how strongly people believe them, a survey will be distributed to 200 participants to the general public to substantiate the misconception that the majority of people consider an eating disorder to purely be about wanting a small body figure.

INTRODUCTION

This study focuses on how people with eating disorders, specifically anorexia nervosa and bulimia nervosa, are misunderstood. The research will address the misconceptions regarding people with eating disorders, in particular, anorexia nervosa, as well as bulimia nervosa and co-occurring disorders such as anxiety, depression and obsessive-compulsive behavior. Eating disorders are defined as, "Serious conditions related to persistent eating behaviors that negatively impact your health, your emotions and your ability to function in important areas of life," (Mayo Clinic Staff, 2018). The most common eating disorders are anorexia nervosa, bulimia nervosa, and binge eating disorder. This inquiry will explicitly investigate anorexia and bulimia to dispel the myths and misconceptions behind an eating disorder from a survivor firsthand. "While no one knows for sure what causes eating disorders, a growing consensus suggests that it is a range of biological, psychological, and sociocultural factors." (What Are Eating Disorders?, 2019). We will address the influence social media, sports, socio-economic and cultural stressors, and co-occurring psychological disorders have on the development of an eating disorder.

"National surveys estimate that 20 million women and 10 million men in America will have an eating disorder at some point in their lives," (What Are Eating Disorders?, 2019). The relevance of eating disorders has increased immensely in the younger generation due to the messages about body image from fashion marketing campaigns and social media. In the past, mental illness was not discussed and was looked at as a weakness. This stigma is still pertinent today, but the topic of mental illness has shifted from something that was not discussed, to a topic that is simply uncomfortable for people to talk about. Further, the topic of mental illnesses like depression, anxiety, bipolar and obsessive-compulsive behavior has been brought to light as a result of famous entertainment stars sharing their struggle or the struggles of someone close to them. However, the subject of eating disorders continues to lurk in the shadows. The impact an eating disorder has on a person is life threatening and effects the people close to them. It is nearly impossible to help someone with an eating disorder if the people around them do not understand and recognize risk factors conducive to an eating disorder. Unfortunately, social media, which has become our new reality, reinforces ideals of beauty and popularity that are unrealistic and nonsensical. This study's goal is to provide the readers with not only the biological,

psychological and socio-cultural causes for eating disorders but provide insights into the thoughts, feelings and behaviors of a survivor of anorexia nervosa with episodes of purging.

LITERATURE REVIEW

The number of people suffering from an eating disorder has significantly increased in the past decade as well as the stigma around them. According to the Mayo Clinic, anorexia nervosa is, "Characterized by an abnormally low body weight, intense fear of gaining weight, and a distorted perception of weight or shape," (Mayo Clinic Staff, 2018). There are many different behaviors that people with anorexia partake in to lose weight. Someone with anorexia excessively limits calories, exercises an extreme amount, uses laxatives or diet pills, or purging after eating. These unhealthy behaviors can result in severe health problems and potentially death (Mayo Clinic Staff, 2018). The Mayo Clinic characterizes bulimia nervosa as, "Episodes of bingeing and purging that involve feeling a lack of control over your eating," (Mayo Clinic Staff, 2018). Someone with bulimia may also restrict their food intake throughout the day or excessive exercising which will often result in more binging and purging. Many times, people confuse anorexia with bulimia because, in both, the person may engage in purging episodes. The difference between the two is that someone with bulimia nervosa will eat an unusually large amount of food in a short time and then try to get rid of the food by vomiting. Conversely, a person with anorexia will limit the amount of food they intake and in some cases the small amount of food consumed may prompt a purging episode. In both disorders, the absence of nutrition has many consequences to the human body. The lack of energy sources and protein induce the body to go into a self-hibernation or preservation mode where the body only maintains essential survival functions. According to NEDA, common symptoms that arise in patients with an eating disorder may include:

Emotional and Behavioral

- In general, behaviors and attitudes that indicate that weight loss, dieting, and control of food are becoming primary concerns

- Preoccupation with weight, food, calories, carbohydrates, fat grams, and dieting
- Refusal to eat certain foods, progressing to restrictions against whole categories of food (e.g., no carbohydrates, etc.)
- Appears uncomfortable eating around others
- Food rituals (e.g. eats only a particular food or food group [e.g. condiments], excessive chewing, doesn't allow foods to touch)
- Skipping meals or taking small portions of food at regular meals
- Any new practices with food or fad diets, including cutting out entire food groups (no sugar, no carbs, no dairy, vegetarianism/veganism)
- Withdrawal from usual friends and activities
- Frequent dieting
- Extreme concern with body size and shape
- Frequent checking in the mirror for perceived flaws in appearance
- Extreme mood swings (Warning Signs and Symptoms, 2020)

<u>Physical</u>

- Noticeable fluctuations in weight, both up and down
- Stomach cramps, other non-specific gastrointestinal complaints (constipation, acid reflux, etc.)
- Menstrual irregularities — missing periods or only having a period while on hormonal contraceptives (this is not considered a "true" period)
- Difficulties concentrating

- Abnormal laboratory findings (anemia, low thyroid and hormone levels, low potassium, low white and red blood cell counts)
- Dizziness, especially upon standing
- Fainting/syncope
- Feeling cold all the time
- Sleep problems
- Cuts and calluses across the top of finger joints (a result of inducing vomiting)
- Dental problems, such as enamel erosion, cavities, and tooth sensitivity
- Dry skin and hair, and brittle nails
- Swelling around area of salivary glands
- Fine hair on body (lanugo)
- Cavities, or discoloration of teeth, from vomiting
- Muscle weakness
- Yellow skin (in context of eating large amounts of carrots)
- Cold, mottled hands and feet or swelling of feet
- Poor wound healing
- Impaired immune functioning (Warning Signs and Symptoms, 2020)

When someone feels as if they are not in control of their life, any sense of structure and consistency is welcomed. The consistency of having a moment of relief and control when engaging in an anorexic or bulimic behavior becomes a crutch and a way of coping. The self-

determination theory suggests exactly this and explains it through two specific elements. The self-determination theory is, "The ability or process of making one's own choices and controlling one's own life… It posits that there are two main types of motivation—intrinsic and extrinsic," (Self-Determination Theory of Motivation: Why Intrinsic Motivation Matters, 2020). These motivations are what drive people to meet the three basic needs of the self-determination theory: autonomy, competence, and relatedness. In this theory, autonomy is the need to feel control over one's own destiny and life, but more importantly control over one's behaviors. People also have a need to grow their competence and become skilled in tasks that are important to them. The third need of this theory is relatedness. This is the idea of connection and that people have a need for a sense of belonging with others to some degree, (Deci & Ryan, 2008). Someone with an eating disorder is intrinsically and extrinsically motivated to continue the anorexic or bulimic behavior. An intrinsic motivation occurs when a person does something because they either enjoy it or receive personal satisfaction from the action. For example, although it is only for a short period of time, the feeling of relief from the unhealthy behavior is the intrinsic motivation that causes the behavior to continue. An extrinsic motivation is when someone is driven by external rewards. There are times when someone with an eating disorder has an accomplishment or success, but at the same time they were engaging in a disruptive eating comportment. These simultaneous events can cause an individual suffering from an eating disorder to relate the achievement to the self-destructive eating activity and will therefore continue with the negative behavior.

Eating disorder components and risk factors are as individualized as the person struggling with the disorder. "The exact cause of eating disorders is unknown. As with other mental illnesses, there may be many causes," (Eating Disorders, 2018). However, researchers have been able to find a common thread of root behaviors within the gamut of eating disorder cases diagnosed. These commonalities point at the basis for the following biological, psychological and social risk factors.

A. Biological

Often people do not consider the possibility of an eating disorder having biological causes. A person can be quite susceptible to having an eating disorder as a result of biological factors. For example, someone with a close relative who has an eating disorder, or a mental health condition is at a higher risk of developing an eating disorder. According to NEDA, "Studies of families have found that having a first-degree relative (like a parent or sibling) with an eating disorder increases a person's risk of developing an eating disorder… Similarly, issues like anxiety, depression, and addiction can also run-in families, and have also been found to increase the chances that a person will develop an eating disorder," (Risk Factors, 2018). Furthermore, 'recent research suggests that inherited biological and genetic factors contribute approximately 56% of the risk for developing an eating disorder. Individuals who have a mother or a sister with anorexia nervosa are approximately twelve times more likely to develop anorexia and four times more likely to develop bulimia than other individuals without a family history of these disorders. Studies of twins have shown a higher rate of eating disorders when they are identical (compared to fraternal twins or other siblings)' (Causes of Eating Disorders – Biological Factors).

In addition, someone with a history of dieting or other weight control methods is at greater risk of developing binge eating disorder. There is a fine line between healthy and unhealthy dieting. A diet becomes concerning when, "Burning off more calories than you take in leads to a state of negative energy balance. Many people report that their disorder began with deliberate efforts to diet or restrict the amount and/or type of food they were eating in the form of dieting other causes can include growth spurts, illness, and intense athletic training," (Risk Factors, 2018). Furthermore, a person with type 1 diabetes is also at higher risk of developing an eating disorder. Type 1 diabetes is when a person's pancreas is not functioning correctly and causes their body to be insulin dependent. NEDA states that according to recent studies, "Approximately one-quarter of women diagnosed with type one diabetes will develop an eating disorder. The most common pattern is skipping insulin injections, known as diabulimia, which can be deadly," (Risk Factors, 2018). Weight gain is a normal side effect to taking insulin but can cause the unhealthy thought pattern to begin in a person's mind. In this situation, an individual has no control over whether they have type 1 diabetes or the fact that they gain weight when taking insulin. A way of taking

back that control would be by stopping the insulin injections and engaging in other eating disorder behaviors. Negative self-image thoughts can be so powerful that the mind can convince a person to stop using a medicine that they know is critical to their survival.

Moreover, research has provided a key biological risk factor where the binging behavior in bulimia can be directly related to low levels of the neurotransmitter serotonin. As a point of fact, the craving of food that is rich in carbohydrates are then processed into tryptophan. "Tryptophan is then used to create serotonin, which is partially responsible for the regulation of appetite, creating a sense of satiation, and regulating emotions and judgment. Thus, the binge behavior of bulimics may also be a response to low serotonin levels in the brain. […] The successful treatment of bulimia with Prozac (a medication typically used for depression), which acts to increase the amount of serotonin in the brain, is additional evidence of the importance of this brain chemical," (Causes of Eating Disorders – Biological Factors).

B. Psychological:

For many people suffering from an eating disorder, there are co-occurring mental illnesses that are present. Any single mental illness is difficult for a person to have a positive self-image or self-love; the combination of an eating disorder with another mental illness can be debilitating mentally and physically.

Anxiety is a common mental illness that occurs with the presence of an eating disorder. In general, anxiety is described as, "Intense, excessive and persistent worry and fear about everyday situations. Often, anxiety disorders involve repeated episodes of sudden feelings of intense anxiety and fear or terror that reach a peak within minutes (panic attacks)," (Anxiety Disorders,2018). People with eating disorders have constant fears, but these fears differ from case to case. Many people with eating disorders often have a fear of failure, social situations where food or exercise is involved, or judgement from others. These fears can cause overwhelming feelings that can result in a panic disorder. There is a specific anxiety disorder known as social phobia that explains these paralyzing worries and fears when in a social situation. Someone with social phobia will avoid social situations due to 'worries of embarrassment, self-conscious feelings, or fear of being judged

or viewed negatively by others,' (Anxiety Disorders,2018). The behavioral symptoms of social phobia are very similar to those a person with an eating disorder displays.

The constant negative self-image thoughts and eating disorder behaviors often become obsessions for that person. These thoughts and behavior patterns are considered obsessions because they are ideas or thoughts that repeatedly preoccupy a person's mind and interfere with their daily activities. Further, it is not a strange occurrence for a person with obsessive compulsive disorder to be more prone to having an eating disorder and vice versa. Consequently, this type of anxiety disorder causes people to have, "Recurring, unwanted thoughts, ideas or sensations (obsessions) that make them feel driven to do something repetitively (compulsions)," (What Is Obsessive-Compulsive Disorder?, American Psychiatric Association). If the self-deprecating thoughts are considered an obsession, the compulsions would manifest by having to reach a certain amount of steps to burn certain amount of calories eaten in a day, not go over a fixed amount of calories, eat a particular combination of low caloric foods at a specific time and in a specific order, run a specific number of miles, do a set number of reps, and many other compulsive behaviors. It is important to note that these behavioral displays only become a compulsion when not meeting or completing the targeted action generates a feeling of discomfort and/or extreme anxiety.

Perfection is an idea of excellence and supremacy that advertisers have created for us to pursue as the ultimate goal in all aspects of our life, but perfection is unachievable. American philosopher Stanley Cavell developed the idea of perfectionism as 'the persistence of obtaining the highest quality of any component of life,' (Falomi, Matteo, 2010). Within the theory of perfectionism, there is self-oriented perfectionism, "Which involves setting unrealistically high expectations for yourself," (Risk Factors, 2018). Someone with an eating disorder holds themselves to an unreasonably high standard for certain and/or all aspects in their life. When these unrealistic standards are not achieved, the perception of failure arises and the sensation of not having control over the situation presents itself. An individual with an eating disorder will begin to see these so-called imperfections about their appearance and focus on making those imperfections fit their idea of "perfect". Unfortunately, a person suffering an eating disorder may logically understand that perfection is unattainable, however, the brain's processing of negative thoughts is so powerful and all-consuming that it drowns any coherent and logical reasoning.

Depression is another mental illness that people with eating disorders experience. A person with depression has feelings of sadness, hopelessness and/or loss of interest in activities a person once enjoyed. The thoughts and feelings a person with depression internalizes have a detrimental effect on their behavior and can severely impair their daily life. Additionally, depression "can lead to a variety of emotional and physical problems and can decrease a person's ability to function at work and at home," (What Is Depression?, American Psychiatric Association). Similarly, the thoughts of a person suffering from an eating disorder affects their behavior and undermines their daily activities due to the negative thoughts becoming so consuming and overwhelming. These two psychological processes become intrinsically co-dependent by the mutual reinforcement of self-pity, forlornness, and distress.

The idea of self-esteem has a large influence on someone with an eating disorder. In the general public, high self-esteem is described as, 'a general liking or love for oneself and low self-esteem as self-doubts with mildly positive feelings toward oneself. In extreme situations like an eating disorder, low self-esteem is having hate and self-loathing for oneself,' (Baumeister, Tice, & Hutton, 1989). An eating disorder would be characterized as an extreme situation of low self-esteem. A person's mind is taken over by these belittling and self-deprecating thoughts. It can become difficult for someone to focus or engage in regular daily activities with the despondent reflection always bringing them down. The unyielding and persistent thought, "You're not good enough," or "I'll never be as good as him/her," takes a toll on a person's self-image and self-esteem. William James is thought to be the original psychologist to propose the theory of self-esteem. He explained that there are 'two elements that are inevitably linked and created the equation, "Self-Esteem = Success/Pretensions,"' (Baumeister, Tice, & Hutton, 1989). James suggests that, "Feeling good about ourselves (pretensions) and how well we actually do (success), are inextricably linked, we can feel better about ourselves by succeeding in the world but also by varying the levels of our hopes and expectations," (Nayler, 2017). A person will feel positive about themself when their outcomes exceed their personal standards and negative about themself when their outcomes do not meet their personal standards. The problem for someone with an eating disorder is that their personal standards are unattainable and unhealthy. As a result, an extremely low self-esteem in a person with an eating disorder is a common occurrence.

C. Social

Currently, there are so many factors that can cause an eating disorder. With the use of social media, it becomes harder to ignore the aspects of society that can contribute to the development of an eating disorder. Overweight stigma is also known as weight bias or weight-based discrimination and its presence has increased throughout history. "Weight stigma is discrimination or stereotyping based on a person's weight, and is damaging and pervasive in our society," (Weight Stigma, 2019). This stigma sends the 'message that thinner is better and studies have shown that exposure to this can increase negative self-body image and cause someone to have a lower self-esteem' (Risk Factors, 2018). In addition to body dissatisfaction and low self-esteem, overweight stigma is a 'significant risk factor for more frequent binge eating and the development of an eating disorder' (Weight Stigma, 2019). No one person has control over how society views weight in general. If someone were to be overweight and the prevailing view is that it is better to be skinny, it becomes something a person would want to achieve. The need to feel belongingness is a natural desire and if a way to belong in society is by being thinner, that will become the primary focus for a person that does not feel they belong.

Bullying is another societal factor that influences the progression of an eating disorder. No matter what type of bullying occurs, the victim has little to no control over the situation. When a person is bullied, they will have, "Increased feelings of sadness and loneliness, changes in sleep and eating patterns, and loss of interest in activities they used to enjoy," (Effects of Bullying, 2018). Not only will a person being bullied feel sad, but they may start to believe what the bully is saying about them. The victim will try to change the things about themself the bully is commenting on to possibly stop the bullying. If the bullying is about a person's appearance, then that will be what the victim focuses on and has negative thoughts about. The victim may also connect the cause of bullying to be their appearance and go to the extreme measures of an eating disorder to potentially stop the bullying. Although a victim feels they have no control over a person physically or mentally bullying them; the victim knows they have control over their own body. The need for control and the loss of control in their own life leads to the progression of an eating disorder.

For generations, people have been asking the question, what is beauty? Marketing and social media have altered their idea of the "ideal body" throughout history. Marketers have created unattainable body standards while being aware that they are unattainable. Advertisements are convincing and pressuring people to feel the need to "achieve" these unreachable sizes and figures. Again, the need for belongingness arises and causes a person to believe that by fitting into the "ideal body" they see represented predominantly in social media, they are more likely to belong and be perceived positively by others. The thought that a person cannot control another person's opinion of them causes them to search for something that they can control that will influence those opinions. Social media has become an extension of everyday life. There are messages that display a connection between beauty or the "ideal body" and a positive outward perception. This connection motivates people to work towards these unattainable body images which evidently leads to an eating disorder.

The need to belong expands to a person's socio-cultural identity. Socio-cultural identity is a part of a person's self-concept and self-perception. It relates to a person's 'cognitive development and how it is largely influenced by a person's surrounding culture,' (Cherry, 2019). Whether it be a person's nationality, ethnicity, religion, social class, generation, locality or any kind of social group, people have the desire to belong. When there is exclusion or discrimination towards groups, it can cause negative feelings towards a culture a person identifies with. A person's identity is not something that can easily be changed to fit into a certain group. The feeling of not belonging anywhere is damaging to a person's self-image or self-love. If a person cannot control their nationality, or ethnicity, or any other aspect of their socio-cultural identity, they will seek comfort in something they can control. Unfortunately, that control is what they put in their body, what they take out of their body, how much they exercise, and more.

Sports have a major influence on mental health and eating disorders. Many times, we overlook the possibility of an athlete having an eating disorder because typically an athlete is considered healthy. The pressures that we put on athletes to succeed and reach perfection are so high that it can lead to deprecating thoughts for not reaching perfection. Participation in sports changes from doing them for joy to having to be the best or you are not good enough. This causes people to

have negative thoughts and begin comparing themself to someone "better". According to The National Eating Disorder Association, the specific factors athletes are at risk for include:

1. "Sports that emphasize appearance, weight requirements, or muscularity (gymnastics, diving, bodybuilding, or wrestling).
2. Sports that focus on the individual rather than the entire team (gymnastics, running, figure skating, dance or diving, versus teams' sports such as basketball or soccer).
3. Endurance sports such as track and field, running, swimming.
4. Overvalued belief that lower body weight will improve performance.
5. Training for a sport since childhood or being an elite athlete.
6. Low self-esteem: family dysfunction (including parents who live through the success of their child in sport); families with eating disorders; chronic dieting; history of physical or sexual abuse; peer, family and cultural pressures to be thin, and other traumatic life experiences," (Eating Disorders & Athletes, 2018).

All the above risk factors come to a head with an atrophied low self-esteem and body dissatisfaction perspective. Feelings of shame, exclusion, loneliness, sadness, anxiety and rejection probably will emotionally fuel the motivation of an individual to engage in an eating disorder.

RESEARCH QUESTIONS

I am passionate about this topic because I am a survivor currently recovering from an eating disorder. The severity of my eating disorder brought me days away from a heart attack and possibly death due a compelling need to exercise with no food intake for days leading to a weakening heart beating as low as 28 beats per minute and twelve days of absolute bed rest in the hospital. My body shut down all non-essential biological functions due to insufficient protein and lack of energy as a result of the absence of carbohydrates. To think the only reason why my eating disorder started was the desire to be thin would be naive. It pains me to see how the media hustles psychological stressors to impressionable youth trying to fit in a social structure that defines success from a cookie cutter perspective, e.g., dressed with the latest fashion on an extremely thin

body, constant self-validation through staged selfies in order to attract high number of followers in Instagram, TikTok, Twitter and/or the latest social media application of the day. Up until I was living with my eating disorder, I had a false impression of what anorexia and bulimia were. Even in the hospital, I did not believe when the doctors and nurses would tell me that in my pursuit for leanness, I had emaciated my body to the level of muscle loss, weakening of the heart muscle, major disruption of the liver metabolic process to produce energy and compromised the body's homeostasis. Further, I would look in the mirror and see a distorted view of what my body really looked like. The fact that the brain can make someone see one thing when others see something completely different is fascinating and terrifying. I want to educate people on what led up to mine and other's eating disorders as well as verifiable medical information that will shed a light on misconceptions, myths and true reality. At the beginning of my recovery, I felt as if no one understood my feelings or thoughts. I believe these insights can help someone have an idea of what a person with an eating disorder is going through.

1. In today's society, there is a common misconception of what causes someone to develop an eating disorder and then maintain one.
2. There is not enough information taught to young people on the topic which leads people to trust what they see on social media.

RESEARCH METHODOLOGY

To test each research question, I have distributed a survey to the general population to gauge their understanding and knowledge and opinions towards the topic of eating disorders, specifically anorexia nervosa and bulimia nervosa. The survey has uncovered whether or not the general public has misconceptions about the medical, psychological and socio-cultural markers that help identify internal and external stressors that trigger someone to engage in and maintain an eating disorder (Survey Questions - Appendix A).

ETHICAL CONSIDERATIONS

This study has obtained data by conducting an experiment and survey. When implementing an experiment and survey, there are ethical considerations that must be monitored. Before the survey

began, there was a question that verified if the person participated voluntarily and was informed of how the survey would be conducted in order to provide informed consent. To provide anonymity, the participant will not release their name, but will be informed that the data they provide in the survey will be used publicly.

It is important to take into consideration that questions in this survey may be uncomfortable for a person who has experienced an eating disorder. The survey informed each participant before taking the questionnaire that the questions would be surrounding the topic of eating disorders and they had the opportunity to choose if they would like to participate or not.

RESULTS - ANALYSIS

Hypothesis: The general population will not answer the questions correctly due to misconceptions or lack of knowledge on the topic of eating disorders. These misconceptions and lack of knowledge are supported by the potential influence of confirmation bias, selective perception, and stereotyping.

The questionnaire was completed by 121 respondents from various states across the United States. The participants were 52.9% female, 47.1% male, and had ages ranging from fourteen to sixty years old (the majority between twenty and twenty-two). Of the 121 participants, 9.9% have been diagnosed with an eating disorder. In other words, one in ten people have been diagnosed with an eating disorder.

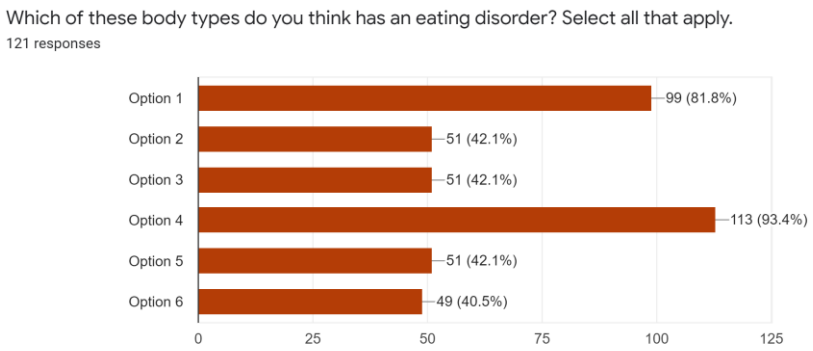


Figure 1- Option 1: "underweight" male, Option 2: "healthy weight" male, Option 3: "overweight" male
Option 4: "underweight" female, Option 5: "healthy weight" female, Option 6: "overweight" female

All body types are at risk for developing and maintaining an eating disorder. Most individuals with bulimia nervosa are of normal weight or overweight and even atypical anorexia nervosa can occur at various weight ranges. A person is not able to know if someone has an eating disorder solely by physical appearance. When participants were asked what body type resembled someone to have an eating disorder, the results show that the general public believes otherwise. 93.4% of participants chose the body type that represented an "underweight" female body type, while 81.8% of participants chose the body type that represented an "underweight" male body type. Immediately there is a stereotype that the public categorizes eating disorders as a more female based disorder. As for the body types that are considered "healthy" or "overweight", less than 45% of participants chose these options for both male and female. It is these stereotypes towards who will develop an eating disorder that prevents individuals from seeking treatment because they feel they do not fit the prevailing social mold.

There are different categories of signs and symptoms when it comes to a person developing and maintaining an eating disorder. It is important for people to understand there are both physical and emotional/behavioral symptoms of an eating disorder. When participants were asked to identify the emotional/behavioral symptoms of developing and maintaining an eating disorder, only 39.8% of people correctly answered the question by selecting all the options. This is

extremely discouraging because if someone were engaging in the behaviors people did not select, they may overlook them in a person who is struggling. When it came to physical symptoms, only 37.2% of participants correctly answered the question by selecting all the options. The first question of the survey proves there is a stereotype that someone can tell who has an eating disorder based on physical appearance. To have this stereotype and then not be able to identify the physical symptoms shows that the public does not understand that eating disorders are not just about being skinny. There are numerous other physical symptoms that the public does not recognize or realize are a result of an eating disorder.

When topics are discussed often and with importance, they tend to hold more power and significance in someone's life. Participants were asked how often the topics of weight loss, dieting, and exercise were discussed in their everyday lives. 42.2% of participants responded that weight loss is discussed four or more times a week. 43% or participants responded that dieting is discussed four or more times a week. 83.4% of participants responded that exercise is discussed four or more times a week. For someone who is battling an eating disorder, it may seem impossible to distance themself from these topics when they are mentioned so many times throughout each week.

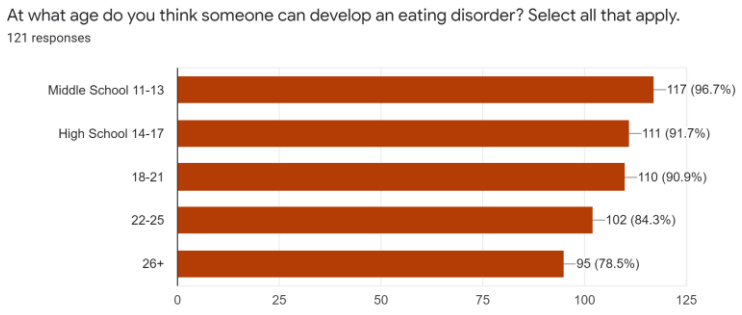


Figure 2

Based on *Figure 2* the general public believed, as a person ages, they are less likely to develop an eating disorder. This belief is completely inaccurate. Eating disorders do not discriminate and can affect any gender, age, or race.

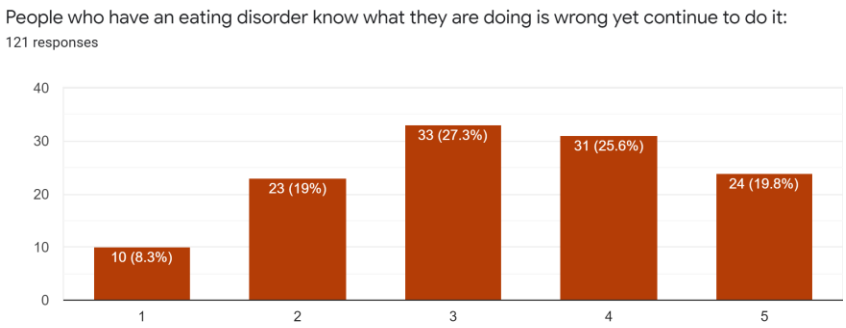


Figure 3

In order to gauge the public's perception of eating disorders, participants were asked to rate how society would perceive a series of description words in relation to someone with an eating disorder. When the responses for *Agree* and *Strongly Agree* are combined, 56.2% of participants believe that society perceives someone with an eating disorder as "weak". 57.9% of participants responded *Disagree* or *Strongly Disagree* for society perceiving a person with an eating disorder as "strong-willed". It is interesting that society would label someone who is able to suppress their basic physiological needs as someone who is not "strong-willed", but rather someone who is "weak" when in fact it takes a lot of strength and will-power to do just that. When the responses for *Agree* and *Strongly Agree* are combined, 57.3% of participants believed that society perceives someone with an eating disorder as "skinny". These societal perceptions motivate confirmation bias that then further support these beliefs. Moreover, 96.7% of respondents rated the "Desire to be skinny" as having *Some Impact* or *Very Impactful* on motivating a person's eating disorder. This misconception has become a fact in people's minds, but it is completely false. It is not the desire to be skinny that motivates an eating disorder, but the debilitating thoughts of not being good enough in every aspect of one's life. It is the urge to have control and by controlling what is put in or taken out of one's body.

Additionally, 79.1% of people responded that some of their information about eating disorders is gained from social media. The issue with this is that the information available on social media is not regulated for quality or accuracy, therefore, if people are seeing invalid information, it will create the misconceptions we have as a society has towards eating disorders. Again, this will lead to the tendency of searching for or interpreting new information in a way that confirms or supports the misinformation they believe.

Of the respondents, 63.6% of people reported that they have been taught or researched the topic of eating disorders, specifically anorexia and/or bulimia. Of these respondents, they were asked to rate their confidence in the scientific accuracy of the information they had been told or researched regarding the topic of eating disorders. 49.6% of participants responded *Some Confidence* or *Very Confident* with their knowledge of bulimia nervosa, while 52.0% of participants responded *Some Confidence* or *Very Confident* with their knowledge of anorexia nervosa. This shows that people are confident with the inaccurate information they believe to be true. People have the tendency to neglect information that may cause emotional discomfort or contradict their prior beliefs. It can be extremely uncomfortable for a person to understand that an eating disorder is not just about being skinny, but much more than that. This selective perception has reinforced the spread of eating disorder misconceptions that prevail in society.

CONCLUSION

I am now in recovery for anorexia nervosa with episodes of purging. I did not realize I was sick until I was lying in a hospital bed and the heart monitor said 27 bpm. I still felt as if I could run my daily six miles on the one coffee, I had that day. Twelve days. I was in the hospital for twelve days, the longest period my nurse had a patient for an eating disorder stay in the hospital. I finally had to come to terms with the fact that I needed help. The problem was that all the misconceptions society has about eating disorders, I had too and I told myself I did not fit the mold. I have never felt so alone, lost, or misunderstood. I had people that supported me, but no one truly understood the pain I was going through. No one understood how difficult it was to wake up every morning and fight all the thoughts and behaviors that have been controlling your life for years. Through learning and researching eating disorders, I realized my own mentality towards eating disorders was incorrect. I had to first change this mentality to begin my recovery. I continuously had the fear of being judged by others for developing an eating disorder, but I overcame this fear because of the support I received when telling people, I trusted. As time went on and I became more comfortable talking about the topic, I wanted to help others suffering. By educating the public about the myths of eating disorders, it may help someone suffering from an eating disorder not feel alone or misjudged. As someone who is in recovery, this study was not easy to complete.

The responses to these questions brought forth many emotions. I was shocked, hurt, and saddened that my hypothesis for this study was true.

The general population did not answer the questions correctly due to misconceptions or lack of knowledge on the topic of eating disorders. The misconceptions and lack of knowledge were supported by the influence of confirmation bias, selective perception, and stereotyping.

With every study comes limitations, this study could have benefited from a larger sample size to get a better understanding of the general population's knowledge. It would have also been useful to know if the participant had known someone close to them who had suffered from an eating disorder. This information will help understand if people seek out accurate information only if it were relevant to their situation.

An eating disorder is much deeper than simply the desire to be skinny. This mindset camouflages the intense effects an eating disorder has on an individual's mental and physical health. People stick to this mindset because it is an uncomfortable conversation, but by avoiding this conversation, stereotypes and biases expand and intensify.

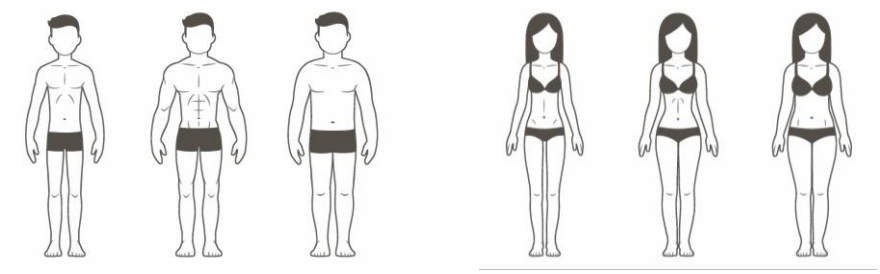
FUTURE RESEARCH RECOMMENDATIONS

In the future, it would be beneficial to have more respondents from the different age groups to be able to investigate which generation is more knowledgeable about the topic. It would also be interesting to investigate the societal misconceptions towards recovery from an eating disorder. Just as there are misconceptions about the development and maintenance of an eating disorder, the public is misinformed about the recovery process.

APPENDICES

Appendix A - Full Questionnaire

1. Which of these body types do you think has an eating disorder? Select all that apply.



2. Based on your knowledge of eating disorders how would you define anorexia? (1-2 Sentences)
3. Based on your knowledge of eating disorders how would you define bulimia? (1-2 Sentences)
4. Which of the following are emotional/behavioral symptoms of developing and maintaining an eating disorder? Select all that apply.
    a. In general, behaviors and attitudes that indicate that weight loss, dieting, and control of food are becoming primary concerns
    b. Preoccupation with weight, food, calories, carbohydrates, fat grams, and dieting
    c. Refusal to eat certain foods, progressing to restrictions against whole categories of food (e.g., no carbohydrates, pasta, fats.)
    d. Appears uncomfortable eating around others
    e. Food rituals (e.g. eats only a particular food or food group [e.g. condiments], excessive chewing, doesn't allow foods to touch)
    f. Skipping meals or taking small portions of food at regular meals
    g. Any new practices with food or fad diets (ex: Whole30, WeightWatchers)
    h. Withdrawal from usual friends and activities
    i. Frequent dieting
    j. Extreme concern with body size and shape
    k. Frequent checking in the mirror for perceived flaws in appearance
    l. Extreme mood swings

m. Drinking excessive amounts of water to feel "full" and eat less
n. Other: _____
o.

5. Which of the following are physical symptoms of developing and maintaining an eating disorder? Select all that apply.
    a. Noticeable fluctuations in weight, both up and down
    b. Stomach cramps, other non-specific gastrointestinal complaints (constipation, acid reflux, etc.)
    c. Menstrual irregularities — missing periods or only having a period while on hormonal contraceptives (this is not considered a "true" period)
    d. Difficulties concentrating
    e. Abnormal laboratory findings (ex: anemia, low thyroid and hormone levels, low potassium, low white and red blood cell counts)
    f. Dizziness, especially upon standing
    g. Low heart rate and blood pressure
    h. Fainting/syncope
    i. Feeling cold all the time
    j. Sleep problems
    k. Cuts and calluses across the top of finger joints (a result of inducing vomiting)
    l. Dental problems (ex: enamel erosion, cavities, tooth sensitivity, discoloration)
    m. Dry skin, hair, and brittle nails
    n. Swelling around area of salivary glands
    o. Fine hair on body (lanugo)
    p. Muscle weakness
    q. Yellow skin (in context of eating large amounts of carrots)
    r. Cold, mottled hands and feet or swelling of feet
    s. Poor wound healing
    t. Impaired immune functioning
    u. Other:_____

6. How often is the topic of weight loss brought up in your everyday life? (Media, Social Circle, Parents, etc.)
    a. Once a week
    b. 2-3 times a week
    c. 4-5 times a week
    d. 6 or more times a week
    e. Never
7. How often is the topic of dieting brought up in your everyday life? (Media, Social Circle, Parents, etc.)
    a. Once a week
    b. 2-3 times a week
    c. 4-5 times a week
    d. 6 or more times a week
    e. Never
8. How often is the topic of exercise brought up in your everyday life? (Media, Social Circle, Parents, etc.)
    a. Once a week
    b. 2-3 times a week
    c. 4-5 times a week
    d. 6 or more times a week
    e. Never
9. How important is the idea of having a "fit" physique in today's society?
    a. Not important
    b. Little importance
    c. Neutral
    d. Some Importance
    e. Very Important
10. At what age do you think someone can develop an eating disorder? Select all that apply.
    a. Middle School 11-14
    b. High School 15-18

c. 19-21
d. 22-25
e. 26+

11. Of the following, rate the impact these external factors have on motivating an eating disorder?
    a. Instagram
    b. Facebook
    c. Tik Tok
    d. Twitter
    e. Snapchat
    f. Social Media Influencers
    g. Sports Influencers
    h. Parental Pressures/Expectations
    i. Sibling Pressures/Expectations
    j. Television shows or commercials
    k. School (fitting in)
    l. Job Pressures
    m. Romantic Relationships (intimacy)
    n. Friends
    o. Ethnicity Pressures
    p. Race Pressures
    q. Biological Factors
12. Of the following, rate the impact these internal/psychological factors have on motivating an eating disorder?
    a. Desire to be skinny
    b. Presence of another mental illness
    c. Fear of failure
    d. Athletic pressures (gymnast, ballerina)
    e. School pressures (grades, college acceptance)
    f. Bullying

13. People who have an eating disorder know what they are doing is wrong yet continue to do it:
    a. Strongly disagree-strongly agree
14. Rate the following. Anorexia and bulimia are the result of feeling lack of control of your:
    a. Life
        i. Strongly disagree-strongly agree
    b. Body
        i. Strongly disagree-strongly agree
15. Rate the following. Eating disorders can be traced to a childhood trauma such as physical trauma and emotional trauma
    a. Physical
        i. Strongly disagree-strongly agree
    b. Emotional
        i. Strongly disagree-strongly agree
16. Rate the following. How are people who have an eating disorder perceived by society?
    a. Weak
    b. Selfish
    c. Self-Centered
    d. Dishonest
    e. Strong-willed
    f. Determined
    g. Self-Sabotaging
    h. Skinny
    i. Gross
17. Is there a certain word you think was not mentioned above that you feel describes a person with an eating disorder? If so, please write the word below.
18. Select all that apply. Has the topic of eating disorders, specifically anorexia or bulimia, been discussed in the following settings:
    a. School
    b. Home

   c. Social Media
   d. Textbooks
   e. Friends
   f. Doctors
   g. None of these settings

19. Have you ever been taught or researched the topic of eating disorders, specifically anorexia and/or bulimia? If yes, please answer the following two questions.
   a. Yes
   b. No
20. If you answered yes to the previous question, do you feel confident with the scientific accuracy of the information you have been told or researched regarding the topic of eating disorders, specifically anorexia and/or bulimia? Rate the following:
   a. Bulimia
      i. Not Confident - Very Confident
   b. Anorexia
      i. Not Confident - Very Confident
21. Have you ever been diagnosed with an eating disorder?
   a. If yes, what kind?
22. How old are you?
23. How do you identify?
24. What is your race?
25. What is your ethnicity?
26. What state are you from?

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