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Raising Awareness of Eating Disorders in the High School System: A Community Program Project

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Raising Awareness of Eating Disorders in the High School System:

A Community Program Project

Dara Puryear

A project submitted to the faculty of
Gardner-Webb University Hunt School of Nursing
in partial fulfillment of the requirements for the
Master of Science in Nursing Degree

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2020

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Date

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CHAPTER I

Introduction

An eating disorder (ED) is an illness in which the individual experiences disturbances in their eating behaviors. People with EDs are characteristically preoccupied with their weight, body shape, and food. Eating disorders are complex illnesses and have a propensity to negatively impact physical and emotional health resulting in lifelong medical issues. The most common EDs are anorexia nervosa, bulimia nervosa, and binge-eating disorder.

Problem Statement

Adolescents often experience unrealistic aspirations of physical perfection that lead to dieting, which can play a role in the prevalence of an ED. Since adolescence is a period of development, teenagers are vulnerable to developing disordered eating, which can progress into a full-blown ED. Eating disorders often go undiagnosed and are a common cause of morbidity and mortality (Campbell & Peebles, 2014).

Significance

A rural community in Yadkin County has been proactive with youth ventures as the churches unite and participate in community or international missions. Often the adolescent confided in their mentor, and other times a nurse identified disordered eating. The predominance of EDs within the students identified a need for a program that will educate and raise awareness.

A licensed professional ED counselor from a treatment center adjacent to Yadkin County, Magnolia Center for Counseling and Eating Recovery, validated that ED is prevalent in Winston-Salem and the surrounding areas. Additionally, the counselor

disclosed that many young adults have already encountered medical conditions, including lifelong chronic conditions, before seeking professional treatment (S. Thornton, personal communication, May 22, 2020).

Recent research indicates that EDs are caused by genetic, biological, behavioral, psychological, and social factors. Although both genders can be affected by EDs, rates among women are higher than men (National Institute of Mental Health [NIMH], 2016). The National Association of Anorexia Nervosa and Associated Disorders (ANAD, 2020) reports at least 30 million people of all ages have an ED in the United States. Eating disorders have the highest mortality rate of any mental illness with at least one death every 62 minutes, affecting all races and ethnic groups. One in five anorexia deaths is by suicide. Nearly half of bulimia and binge-eating disorder (BED) patients have comorbid conditions.

Although EDs have a high prevalence, they are commonly misconstrued illnesses. They are often underdiagnosed by pediatric professionals (Campbell & Peebles, 2014). Consequently, many are frightened and left feeling hopeless and powerless (National Eating Disorder Association [NEDA], 2018).

Purpose

The onset of an ED often occurs during adolescence. High school curriculums generally do not encompass education on the disorders or those at risk for developing an ED. Prevention or early recognition in the school system is critical because of the high rate of medical and psychiatric comorbidities, including the risk of suicide. Advocates have pushed for initiatives to raise awareness in the school system that will educate faculty and students. However, there are limited high school programs that address the

risks and dangers of EDs (Olivero, 2015). This project aims to implement an evidence-based educational program to be integrated into a high school class. Raising awareness of the prevalence of EDs will support prevention and early diagnosis. The project will first be presented to school support faculty that includes nurses, guidance counselors, and social workers. Following a presentation to the school support faculty and administrative staff, the project leader will introduce the program to the remaining staff and faculty during a teacher's workday.

Theoretical Framework

The French philosopher Maurice Merleau-Ponty, developed the phenomenology of body theory in 1945. His theory centers on how we perceive our bodies as our means of relating to our world. The development of eating disorders is associated with body image disturbances (Albertsen et al., 2019).

Consider how the phenomenology of body image is associated with eating disorders in adolescents. The perception of body image is complex as the adolescent judges their worth on how they perceive their body (Albertsen et al., 2019). Disturbances in body image often lead to the desire to alter the body shape and weight, which usually begins with dieting. As a result, the adolescent frequently develops disordered eating or a full-blown eating disorder.

The social comparison theory, initially proposed by Leon Festinger in 1954, expounds upon the phenomenology of body theory in adolescents. The basis of the theory is that the individual evaluates their abilities and attributes on how they believe they compare to others (Bergstrom et al., 2009; Festinger, 1954). Researchers have hypothesized that ED symptoms may be associated with social comparisons related to

appearance (Hamel et al., 2012). The adolescent with an ED judges their worth on physical appearance, and a life without suffering is unfeasible as they focus on having the ideal body (Bloc & Moreira, 2019). Their world centers on how they consider their body is visible to themselves and others. Body image comparisons today are increasingly significant due to the impact of the media on appearance.

Definitions of Terms

Studies reveal the common misconception that eating disorders are a lifestyle choice. Eating disorders are serious illnesses associated with disturbances in eating behaviors. The NIMH (2016) defines the terms and symptoms of the three most common EDs: anorexia nervosa, bulimia nervosa, and binge-eating disorder.

1. Anorexia nervosa (AN): Adolescents with AN may see themselves as overweight, even when they are dangerously underweight. They typically weigh themselves repeatedly, severely restrict the amount of food they eat, often exercise excessively, and may force themselves to vomit or use laxatives to lose weight. Anorexia nervosa has the highest mortality rate of any mental disorder. Death is often a result of this disorder from complications associated with starvation or suicide. Symptoms include:
 - Restricted eating
 - Extreme thinness, or emaciation
 - A relentless pursuit of thinness and unwillingness to maintain a normal or healthy weight
 - Intense fear of gaining weight

- Distorted body image, a self-esteem heavily influenced by perceptions of body weight and shape, or a denial of the seriousness of low body weight
- Other symptoms may develop over time:
 - Thinning of the bones, osteopenia, or osteoporosis
 - Mild anemia and muscle wasting and weakness
 - Brittle hair and nails
 - Dry and yellowish skin
 - Growth of fine hair all over the body referred to as lanugo
 - Severe constipation
 - Low blood pressure, slowed breathing and pulse
 - Damage to the structure and function of the heart
 - Brain damage
 - Multi-organ failure
 - Decrease of internal body temperature, causing a person to feel cold all the time
 - Lethargy, sluggishness, or feeling tired all the time
 - Infertility

2. Bulimia nervosa (BN): People with BN have recurrent and frequent episodes of eating unusually large amounts of food and feeling a lack of control over these episodes. This binge-eating is followed by behavior that compensates for the overeating such as forced vomiting, excessive use of laxatives or diuretics, fasting, excessive exercise, or a combination of these behaviors. People with

bulimia nervosa may be slightly underweight, average weight, or overweight.

Symptoms include:

- Chronically inflamed and sore throat
- Swollen salivary glands in the neck and jaw area
- Worn tooth enamel and increasingly sensitive and decaying teeth as a result of exposure to stomach acid
- Acid reflux disorder and other gastrointestinal problems
- Intestinal distress and irritation from laxative abuse
- Severe dehydration from purging of fluids
- Electrolyte imbalance (too low or too high levels of sodium, calcium, potassium, and other minerals) that can lead to stroke or heart attack
- Binge-eating disorder (BED): People with BED lose control over their eating. Unlike bulimia nervosa, purging, excessive exercise, or fasting are not typical with BED. As a result, people with BED often are overweight or obese.

3. Binge-eating disorder is the most common eating disorder in the U.S. Symptoms include:

- Eating unusually large amounts of food in a specific amount of time
- Eating even when full or not hungry
- Eating fast during binge episodes
- Eating to the point of being uncomfortably full
- Eating alone or in secret to avoid embarrassment
- Feeling distressed, ashamed, or guilty about eating

- Frequently dieting, possibly without weight loss

CHAPTER II

Literature Review

Literature Related to the Purpose

There have been several studies that examined EDs in colleges, but only a few have been conducted with high school age students. Damour et al. (2015) recognized the need to examine students at younger ages since early signs of disordered eating frequently begin during adolescent years. Their initiatives promoted prevention and early intervention before the consequences of other health issues occurred.

Damour et al. (2015) studied an intervention that encouraged students to share concerns about a friend's disordered eating behaviors with an adult. The plan was to educate students on EDs, urging them to reach out to a mentor if a friend exemplifies behaviors that suggest an ED. After the intervention, the study revealed an increased likelihood that the students would talk to an adult about a friend's disordered eating behaviors.

A Likert scale was utilized for measuring the likelihood of reporting concerns of eating behaviors at baseline immediately following the intervention and approximately 3 months later. Variables were measured at each interval and comparisons were made between the eighth and ninth graders. The variables included the willingness to talk to a friend about their eating behaviors, encouraging a friend to talk to an adult, and talking to an adult directly about a friend's eating concerns. The fourth variable was the willingness to share concerns about their eating with an adult. The study results suggest that intervention programs in high schools might be advantageous for diminishing eating disorder risks (Damour et al., 2015).

The prevalence of EDs appears high and 80% of the cases never receive treatment (Dakanalis et al., 2019). Lipson and Sonnevile (2017) studied the predominance of ED symptoms among undergraduate and graduate students at 12 United States colleges and universities. Their study examined three outcomes to identify early signs of EDs: elevated ED risk, objective binge-eating, and compensatory behaviors. The Healthy Bodies Study (HBS) web-based survey was the instrument used for collecting the data. The HBS comprises a validated assessment for measuring ED symptomatology, referred to as the Eating Disorder Examination Questionnaire (EDE-Q), developed by Fairburn et al., (2014). The EDE-Q identifies students' relationships with eating, dieting, exercising, and body image. The students were categorized according to age, degree-level, gender sexual orientation, race/ethnicity, citizenship, first-generation status, academic and extracurricular characteristics, and weight status.

The EDE-Questionnaire (EDE-Q) comprises questions about eating behaviors in the past 4 weeks. It contains four subscales and a global score: eating concern, shape concern, weight concern, and dietary restraint. The EDE-Q higher ratings indicate more significant levels of symptomatology. The first outcome, elevated ED risk, is defined as a global EDE-Q score ≥ 3 . The objective binge-eating outcome delineates those that lost control over their eating one or more times during the past four weeks. Compensatory behaviors are the responses that indicate the student participated in the following measures for controlling weight in the past 4 weeks: vomiting, taking laxatives, taking diuretics, or excessive exercise.

The study by Lipson and Sonnevile (2017) covered two academic years: 2013-2014 and 2014-2015. Their findings validated that EDs are highly prevalent in colleges.

The results that were relevant to this project included elevated ED risk (11.9%), students that engaged in objective binge-eating (40.2%), and students with compensatory behaviors (30.2%). The study disclosed that EDs are more common among females (17.03%) than males (5.48%).

Richards et al. (2017) investigated patients at an ED treatment center to determine the effectiveness of intuitive eating principles for ED recovery. Intuitive eating is an approach to food that does not comprise diets or meal plans. Patients with an ED generally lose touch with hunger cues or when they are full. They are often accustomed to rigid diets or micromanaging their food. Intuitive eating principles aim to reject the diet mentality, allowing the individual to make peace with food. Labeling foods as good or bad is also common with disordered eating behaviors, and intuitive eating intends to teach that all foods are allowed. Mindfulness, or intuitive eating, encourages patients to nourish their bodies with foods they love when they are hungry.

The inpatients with anorexia and bulimia nervosa, or an ED not otherwise specified (EDNOS) at the treatment center, were taught the principles of intuitive eating as defined by Tribole and Resch (2003):

1. Reject the diet mentality.
2. Honor your hunger.
3. Make peace with food.
4. Challenge the food police.
5. Respect your fullness.
6. Discover the satisfaction factor.
7. Honor your feelings without food.

8. Respect your body.
9. Exercise-feel the difference.
10. Honor your health (Richards et al., 2017, p. 102).

Findings from the 2-year experimental intervention revealed significant improvements in patients' attitudes about eating and their relationship with food. The study also served as evidence for ED prevention by discouraging rigid diets or micromanaging food, and promoting mindfulness and intuitive eating behaviors (Richards et al., 2017).

Literature Related to the Theoretical Framework

Researchers have hypothesized that EDs may emerge as the adolescent negatively compares their body image to others. Hamel et al. (2012) examined the correlation between body-related social comparison (BRSC) and EDs of adolescents. Previous research investigated BRSC in adults, but few studies have analyzed BRSC and EDs among adolescents. Adolescents have increased vulnerability for developing EDs as physical appearance is significant to that population. To a teenager in the development stage, the emphasis that society places on physical attributes reinforces the erroneous implication that appearance is a significant factor for self-worth.

Social comparison often precedes a desire to alter the body image by dieting to become thinner with subsequent lower self-esteem, all of which are risk factors for EDs. The connection between the social comparison theory and EDs indicates the need for early intervention to promote awareness of EDs in the school system. Advocacy for ED programs is vital as studies suggest there have been few programs related to ED education in high school age students.

Hamel et al. (2012) examined the connection between social comparison and EDs by evaluating the degree of BRSC in adolescents with the following: an ED, a depressive disorder (DD), and adolescents with no psychiatric history. The study assessed the correlation between BRSC and ED symptoms after the variables depression and self-esteem were controlled. The participants comprised seventy-five girls between twelve to eighteen years of age. The study utilized a five-point Likert scale that evaluated how they compare their body to others. Measurements in the study consisted of demographics; an instrument for measuring psychological disorders with adolescents through semi-structured interviews; a body-related social comparison scale questionnaire; eating disorder questionnaires that assessed cognitive, emotional, and behavioral symptoms of EDs; and depression and self-esteem questionnaires. A one-way analysis of variance (ANOVA) compared the three groups (healthy control, ED, and DD) on BRSC. The results of the study revealed that BRSC symptoms were considerably higher in adolescents with an ED compared to healthy adolescents or those with a DD, indicating a strong correlation between BRSC and EDs.

The EDE-Q utilized in Lipson and Sonnevile's (2017) study addresses behaviors associated with body image, correlating with Merleau-Ponty's (2013) phenomenology of body theory. During the developmental stages of adolescent and young adulthood, the student characterizes their value by how they perceive others to view them. They often compare physical appearance to others, as Festinger (1954) proposes in the social comparison theory. Body image disturbances can lead to dieting as the student considers that changing their body shape or weight makes them more acceptable to society and enhances their worth. The individual with an ED becomes chronically self-conscious

about their appearance, which frequently develops into disordered eating behaviors or a full-blown ED.

Strengths and Limitations of the Literature

The study conducted by Damour et al. (2015) authenticated that more programs related to EDs are needed for high school students. The intervention results indicated the likelihood of eighth and ninth grade girls sharing concerns about their friends' eating behaviors. The study revealed that most of the participants were aware of EDs but were not familiar with the chronicity of the disease. The intervention was instrumental in recognition of risk factors, the prevention of a full-blown ED, and improved prognosis for girls already engaged in disordered eating.

Limitations of the study were methodological as there were limited questions for assessing the students' willingness to share concerns about disordered eating.

Additionally, the study lacked random assignments and control groups. The environment was also a limitation as the study was conducted at a small, private school where the students might be more comfortable sharing concerns with the faculty (Damour et al., 2015). Additional questions, control groups, and comparisons in grades ten through twelve, which include boys, might strengthen further research.

The social comparison study by Hamel et al. (2012) represented strengths by providing a foundation that associates BRSC as a risk factor for EDs. When the study was conducted, it was the only one to utilize a psychiatric control group when assessing BRSC and EDs. Measuring self-esteem and depressive symptoms strengthened the research as they have been associated with ED symptoms and social comparison.

The BRSC study had three significant limitations. First, the BRSC only utilized one question regarding how often adolescents compare their bodies to others. Secondly, the comorbidity depressive disorder was high, making it difficult to distinguish the effects of BRSC on an eating disorder or a depressive disorder. A third limitation of the study was that a cross-sectional design was utilized and it was assumed that the increased BRSC led to a higher risk of developing an ED. Future studies that use longitudinal analyses might be a better indicator for determining if BRSC predisposes the adolescent to EDs (Hamel et al., 2012).

Lipson and Sonnevile's (2017) study in the colleges and universities comprised a large sample of U.S. students, which strengthened the study. This study was valuable by involving a wide range of colleges and universities with diverse students. Limitations include a low response rate: 19% in 2013-2014 and 27% in 2014-2015. The study was cross-sectional, allowing the researchers to identify essential correlations and associations, but it did not offer causal relationships or trends in ED risk. Lipson and Sonnevile (2017) agreed that longitudinal research would provide awareness on the implementation of prevention approaches.

The intuitive eating study showed that treatment outcomes included improvement in eating behaviors, but it did not reveal if other behaviors linked to an ED were improved. Additionally, patients were aware they were being evaluated, which may have influenced the outcomes (Richards et al., 2017). Future studies with control and comparison groups will be advantageous.

CHAPTER III

Needs Assessment

Target Population

The target population for this project is comprised of approximately of 1,433 students from two high schools. The student population of Forbush High School during the 2017-2018 school year was approximately 849 students with demographics of predominately White at 74%, 20% Hispanic, 3% Black, and 3% other. The gender included 51% males and 49% females. There were approximately 584 students enrolled at Starmount High School during the 2017-2018 school year. The enrollment by race included 72% White, 22% Hispanic, 4% Black, and 2% other. The gender population comprised 57% males and 43% females (National Center for Education Statistics [NCES], 2019). There were approximately 94 faculty members for both schools, which include licensed social workers (LSWs), registered nurses (RNs), guidance counselors, two principals, and two assistant principals (Yadkin County Schools, 2020).

Target Setting

The project setting was two high schools (grades nine through twelve) in rural areas of Yadkin County. This project was presented to the school support staff of guidance counselors, nurses, social workers, and administrative staff members. Next, the material was introduced to other staff and faculty members during a teacher's workday.

After staff and faculty were introduced to the program, it could be integrated into the health classes for the high school student population. The sessions were 50-minutes for each class. The course began at the start of the academic school year and continued each month through the end of the school year. After the first half of the program, the

sessions would include small group collaboration. The small group discussions would empower students to ask questions and discuss concerns related to body-image or disordered eating.

Stakeholders

The stakeholders for this project comprised of the high school students, guidance counselors, school nurses, social workers, faculty, and the superintendent. After determining the needs assessment to raise awareness and integrate ED prevention strategies, the project leader arranged a phone conversation with the masters-prepared registered nurse for Yadkin County high schools. The project leader discussed the needs assessment with suggestions for integrating an ED prevention program in the two high schools. A subsequent phone conversation took place after the school nurse presented the idea to some of the stakeholders within the school system. The school nurse affirmed the approval for a provisional program into the health classes.

SWOT Analysis

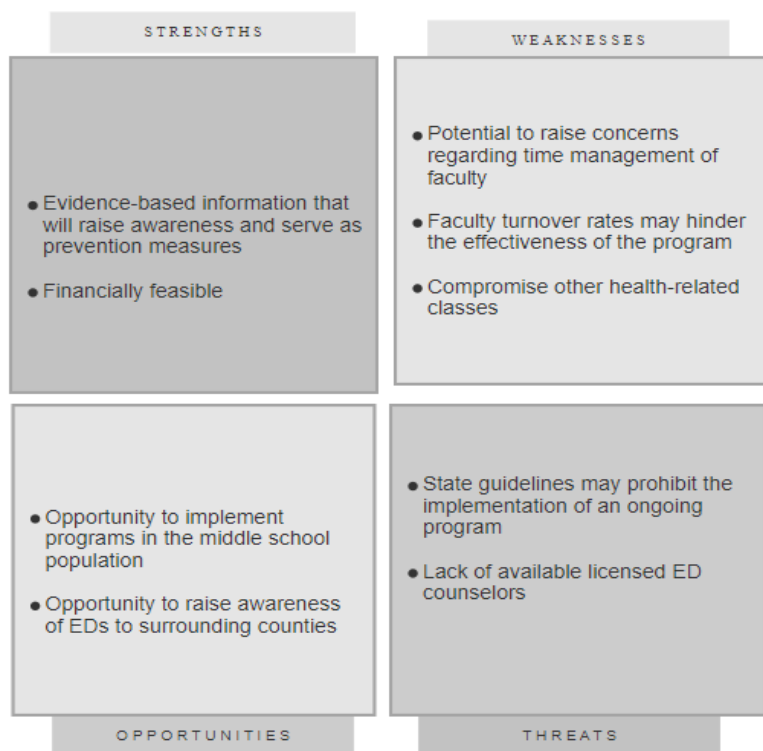
A SWOT analysis (Figure 1) provided a strategy for identifying the strengths, weaknesses, opportunities, and threats of this project. The program included evidence-based information on EDs that raises awareness and promotes financially feasible prevention strategies. However, the implementation of an ongoing program might not be realistic with the support team's schedule, and faculty turnover rates could affect sustainability. The implementation of an additional program may compromise other health-related courses.

The program was easily sustainable and had the opportunity for implementation into the middle schools. A successful program may also raise awareness with an

expansion to surrounding counties. However, there were potential threats due to the lack of availability of licensed professional ED counselors in the area. Threats may also exist if the program does not meet state guidelines for school curriculums.

Figure 1

SWOT Analysis



Resources

The project leader provided four copies of the ED program for each of the two schools. An additional copy was given to the school superintendent. The project leader provided the PowerPoint presentation, a poster for each high school, and flyers for all students and faculty. The school system was responsible for printing copies for the faculty. The school system provided the classroom, a computer, and the SMART Board for presenting the information.

Desired and Expected Outcomes

This project offered a community program that advocated for students by raising awareness of the physical and cognitive effects of EDs. It would enable students to recognize risk factors of disordered eating, empowering them to disclose concerns about their eating behaviors, and to seek professional guidance. It would encourage students to reach out to a friend about their eating or confide in a faculty member about a friend's disordered eating, with the assurance that the informant would remain confidential. The faculty members at the high school would become more cognizant about risk factors, signs, and symptoms of EDs. This project would provide education and support that would be advantageous to students and faculty, with a propensity of course continuance for Yadkin County High School curriculums.

Team Members

The project team consisted of seven members from the two high schools, outside of the project leader. These members included two registered nurses, three guidance counselors, and two licensed social workers. The school nurse had agreed to organize the course schedule for the school year, in collaboration with the health and physical education faculty members. Three guidance counselors were available to provide direction if a student or faculty member disclosed concerns about a student's disordered eating or to answer parental questions. The registered nurses would assist in answering any medical-related questions about the risk factors or symptoms of an ED. The licensed social workers were available as a resource if a guidance counselor needed direction on subsequent steps for appropriate treatment.

Cost/Benefit Analysis

A cost analysis (Figure 2) lists the budget for the project. There was no planning cost for the initiation of this program. The travel cost was minimal as both high schools were in close proximity to the project leader. The project leader provided program introduction refreshments to faculty. The high schools incurred office expenses which included access to a computer and school technology, classroom space, and copies of the PowerPoint presentation that were distributed to the faculty. The project leader covered expenses for the interactive lunch activity that was provided to the participating students in the health classes. The number of students in the health classes was approximately 300 for both schools. The project leader provided the poster for each school and flyers for all students and faculty members.

Figure 2

Cost/Benefit Analysis

Project Planning and Implementation	Budget
Planning	\$0.00
Travel	\$40.00
Program introduction refreshments for faculty	\$150.00
Nine program copies bound into booklets	\$60.00
Copies of the PowerPoint presentation for the faculty	\$90.00
Interactive lunch activity	\$240.00
2500 flyers	\$330.00
Two posters	\$120.00
Total	\$1,030.00

CHAPTER IV

Project Design

Goal

In a society where the media focuses on attractiveness and promoting unrealistic body shapes, it often leads to dieting during the critical high school years; as many teenagers' perspectives about their bodies are bewildering. The Centers for Disease Control and Prevention (2019) school health guidelines are integral for providing students with an education that promotes healthy eating and physical activity. However, for a teenager battling body-image issues, dieting is often exhorted, and the teenager becomes confused about what healthy eating means, especially as the media sends messages that perpetuate fear of eating by labeling foods as “good” or “bad.”

This program would provide strategies for prevention and early recognition of an ED before a full-blown disease or chronicity develops. The evidence-based information, integrated into eight of the health classes at each of the two high schools, would provide education to students and faculty. It would offer a support system within the school system by acknowledging the school nurses, guidance counselors, and social workers as a method for communicating concerns of an ED with assured privacy. For students presently experiencing an ED, the program would promote measures for seeking effective treatment to prevent the incapacitating course of illness that often results from EDs.

The goal was centered on an initiative developed for this project, referred to as the acronym G·U·I·D·E {grow, unite, influence, direct, empower}. The program for raising awareness in the high school population aimed to guide the students in a manner that would promote growth by providing information on EDs. It would encourage the students

to unite with one another or a member of the support team to prevent disordered eating or reduce the risk of a full-blown ED. It was intended to build a foundation for influencing each other with positive behaviors that would direct and empower a sense of self-worth not centered on appearance or body image.

Objectives

The objectives of this project are as follows:

- Execute comprehensive professional knowledge, developing evidence-based strategies that will engage high school students and faculty for raising awareness of risk factors of EDs.
- Evaluate scholarship that will guide and influence high school students and faculty for preventing EDs.
- Apply values of respect and professionalism that foster the development of high school students.
- Illustrate effective leadership that guides students and faculty in the high school setting.
- Analyze how the support team can develop a plan for ongoing education to sustain the ED program in high schools.

Plan and Material Development

A curriculum for this project included a PowerPoint (PPT) presentation (Appendix A) that provided information to enhance awareness of EDs. The project was presented to the support team and then to faculty for feedback. Revisions were made, if needed before introducing the program to the students. There was a total of eight 50-minute educational sessions for the students. The first session provided information by

characterizing types of EDs and identifying risk factors for developing an ED. The last 10-minutes of the first class was interactive, allowing students to ask questions.

Subsequent 50-minute sessions also included PPT presentations that addressed the complexity of the disease, including serious implications with untreated EDs. Normal and abnormal eating behaviors and health-related conditions that often result from an ED was disclosed.

During the second half of the program, the sessions were divided into small groups the lasted 20-minutes of the class. Small groups empowered students to interact and discuss relevant issues associated with an ED such as body-image, social media, or peer pressure comparisons. The school nurses and guidance counselors assisted with small group sessions.

Evidence-based practices on intuitive eating was included in an interactive lunch activity. People are often acclimated to eating according to external cues such as what is going on in our surrounding environment (Texas Eating Disorder Association [TEDA], 2019). Intuitive eating will support healthy eating behaviors instead of relying on restricted diets, the scale, or fitness apps.

Mindfulness, or intuitive eating, is an evidence-based approach for establishing healthy eating behaviors or treatment of EDs (Richards et al., 2017). It allows individuals to connect to internal cues that guide intuitive eating (TEDA, 2019). A Raising Awareness of Eating Disorder Flyer (Appendix B) with screening questions and intuitive eating principles was disseminated during an interactive lunch activity. The activity began by asking the students to sit comfortably, close their eyes, and take deep breaths allowing their thoughts to analyze hunger cues. The project leader provided lunch that

consisted of cheese pizza, mixed vegetables, grapes, and chocolate. Any student dietary restrictions were incorporated. The students were directed to use mindfulness throughout the lunch activity.

The purpose of the mindfulness activity allowed the students to practice being present in the moment while eating, which would foster a healthy relationship with food. The activity promoted trust with self-internal cues instead of the external cues of controlling weight with fitness apps, restricted diets, or using the scale to weigh each day to determine how much to eat. The students were served the vegetables first and instructed to eat slowly to observe the texture and taste of each bite. Next, each student was given a pizza, reminding them to eat slowly, noticing the saltiness, the distinct taste of garlic on the pizza crust, and the gooeyness of the cheese. White and red grapes were given to each student as they were instructed to eat one at a time and determine if they can distinguish the white and red grapes. Each student was given a piece of milk chocolate and dark chocolate as they were asked to differentiate the taste between each.

After the lunch activity, there was discussions on their thoughts about the experience. The project leader asked the following questions for discussion: “Did you label any of the foods as good or bad?” “Do you think mindful eating made a difference in the enjoyment of food?” As the students reflected on the activity, they were asked if they knew individuals that relied on a specific diet, fitness apps, or weighing themselves daily to determine how much they should eat for the day. Other areas of discussion included asking the students if they believed intuitive eating allowed them to develop a sense of trust that would enable their body to maintain its set point. An ED inquiry developed for this project, referred to as Raising Awareness of ED Questionnaire

(Appendix C), comparable to a screening instrument used by Damour et al. (2015), was distributed at the end of the lunch activity in session six.

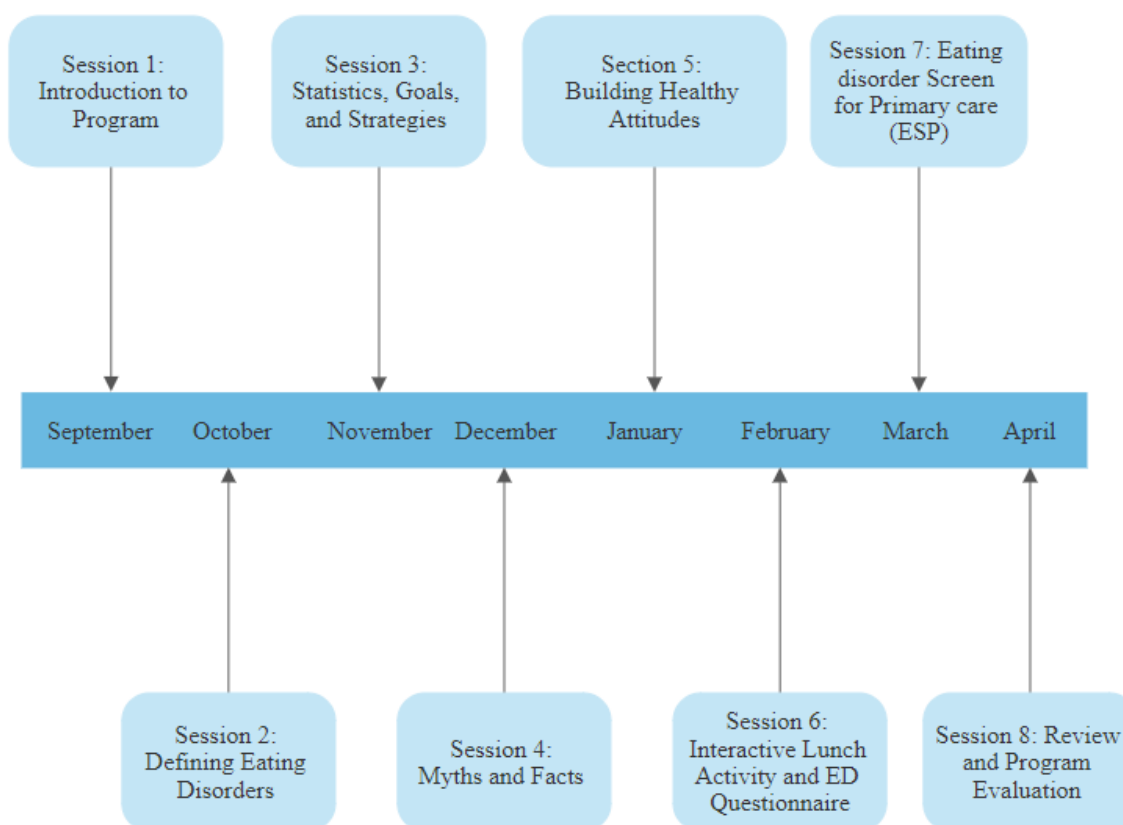
An evidence-based poster was displayed. The poster outlined the purpose of the program, theories, project design, evaluation, and prevention strategies. The poster also included a diagram of the screening tool used in this program, Eating disorder Screen for Primary care (ESP) (Appendix D). The screening tool has established validity and was distributed in session seven as the students were asked to complete the five questions. The Eating disorder Screen for Primary care (ESP) questions have been used to screen for eating disorders in primary care clients and university students. The support team would assess student responses of the ED questionnaire from session six and the ESP screening tool from session seven to determine if a more detailed ED assessment by a licensed ED practitioner was necessary.

The last session reviewed course highlights and the distribution of a course survey (Figure 3) developed for this project. The survey provided feedback on the program, enabling the project leader to determine the program's strengths, opportunities for improvement, and the likelihood of sustaining the program in subsequent school years.

comprised of eight sessions for raising awareness of EDs. The program was assimilated into one of the 50-minute health classes each month.

Figure 4.

Timeline



Budget

The following expenses were estimated for both high schools. The project leader was within close proximity to the schools with a budget of \$40.00 for travel expenses during one academic school year. The project leader provided refreshments to the faculty during the program's introduction, budgeted at \$150.00. The project leader also covered the cost of nine bound copies of the program at \$60.00. PowerPoint presentation copies for faculty and staff was at the expense of the high schools, estimated at \$90.00. The high

schools supplied the classroom, computer, and SMART Boards for presenting the material. The project leader provided lunch to the participating students as part of the interactive activity, which was budgeted at \$240.00. The budget included 2,500 flyers, so all the high school students and faculty would receive a copy and the cost was approximately \$330.00. A poster was included for each high school and the project leader incurred those expenses of \$120.00. The total budget for this project was \$1,030.00 (Figure 2).

Evaluation Plan

The support team distributed the following written questions (Appendix C) for examining participating student attitudes about disclosing an ED. Upon completion of the written questionnaire, the support team encouraged verbal communication on the questions:

If you experience disordered eating...

- How likely are you to confide in the support team?
- How likely are you to confide in a friend?

If you have concerns about a friend's eating behaviors...

- How likely will you speak to the support team about your friend's eating behaviors?
- How likely will you talk to the friend regarding concerns with their eating behaviors?

The ESP assessment (Appendix D) evaluated the need for further intervention by recognizing students who may have an ED or those at risk of developing an ED. The support team recorded the names of students who reached out to express they were

experiencing disturbances with eating and followed up with those students. The support team also documented names if a student disclosed concerns that a friend might have an ED and followed up with those students. The assessment was composed of five questions that follow:

1. Are you satisfied with your eating patterns?
2. Do you ever eat in secret?
3. Does your weight affect the way you feel about yourself?
4. Have any members of your family suffered from an eating disorder?
5. Are you currently experiencing an ED, or have you ever experienced disordered eating in the past?

Course surveys (Figure 3) evaluated the effectiveness of this program. The surveys were comprised of questions that offered recommendations for improvement. It also examined attitudes toward sustaining an ED program in the school system. A record of the number of students that reached out to the support staff was valuable for determining the program's effectiveness.

CHAPTER V

Dissemination

A PowerPoint developed for this project was implemented into health classes at the two high schools. The intent was to spread the knowledge to the entire population of students by displaying a poster at each school and disseminating flyers that were available to all students at the high schools. As evidence disclosed that EDs often originate in adolescence and there were limited programs in the middle or high schools, a successful program will sanction the dissemination of information to the two middle schools in Yadkin County. Research reveals that EDs are often underdiagnosed. Raising awareness by disseminating the information to adolescents will support prevention and early diagnosis. Program evaluation with outcomes that show the dissemination of the information will improve the community's health has the propensity to endorse program expansion to surrounding counties.

Limitations

Although there have been observations that suggest EDs are prominent in the two high schools, actual statistics were not available. This project was limited to the health classes and did not include the entire population of students; thus, the impact did not reflect the actual need for future classes since the program only included students in the health classes. Therefore, to disseminate information to all students, a poster was displayed in the lobby of the school gym. Copies of flyers that included questions from the EDE-Q and the intuitive eating principles were displayed with the poster. With permission to disseminate the EDE-Q to all students, it was valuable to evaluate ED symptomology of students not in the class.

There was a concern about the accuracy of questionnaire responses, as some students may not have been prepared to disclose an ED. Future programs that include all students with statistics to evaluate the number of students that believe they have an ED will strengthen subsequent programs.

Implications

Eating disorders continue to be a significant health concern that affects many adolescents. This program's results will provide implications for nursing practice as the school nurses will become more mindful of risk factors that predispose students to EDs. A curriculum revision that will sustain the program in the Yadkin County high schools will foster prevention measures and early intervention for future students. The program will support the school nurses' role in the identification of students experiencing an ED. Nursing intervention with a referral to the appropriate ED recovery resource might prevent a full-blown ED.

Recommendations

The school system plays a significant role in adolescents' lives; therefore, the implementation of an ongoing program into the high school curriculum will be valuable for ED educational and prevention purposes. The PowerPoint presentation and posters implemented for this project are intended to be utilized for future initiatives in addressing EDs in the high school system. Available resources such as nurses, guidance counselors, and social workers can continue to offer a support system when students wish to discuss their disordered eating behaviors or those of a friend. Magnolia Center for Counseling and Eating Recovery in Winston-Salem, North Carolina, will be a resource for students seeking ED counseling by a licensed professional eating disorder counselor.

Recommendations to continue the program are encouraged as the project can be easily sustained in the two high schools in Yadkin County.

Conclusion

The project aimed to educate high school students and faculty by providing evidence-based material that will support the identification of students with an ED or those at risk. The program encourages a school support system for the goal that students will confide in the professional staff of nurses and guidance counselors. A program that promotes early intervention has the propensity to prevent the illness from fully emerging before serious lifelong health issues develop. The 1-year school program can only reach a limited number of students, so the project leader aspires to continue the program and disseminate information to reduce the number of adolescents with EDs.

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Appendix A

PowerPoint Presentation

Raising Awareness of Eating Disorders

Session One

Introduction to the Program

Eating Disorders (ED):

A serious problem
that can impact
health

Campbell, K., & Peebles, R. (2014). Eating disorders in children and adolescents: State of the art review. *Pediatrics*, 134(3), 582-592.
<https://doi.org/10.1542/peds.2014-0194>

- **The number of individuals with an ED is on the rise**
- **Many start during adolescence**
- **Many are undiagnosed**

**An ED can
cause lifelong
medical
conditions,
chronic
conditions, or
even death.**





EDs are the third most common chronic illness among adolescents, after obesity and asthma.

- 30 million people of all ages suffer from an ED in the U.S.
- EDs have the highest mortality rate of any mental illness with at least one death every 62 minutes.
- One in five anorexia deaths is suicide.
- Nearly half of bulimia and binge-eating disorder patients have comorbid disorders.

National Association of Anorexia Nervosa and Associated Disorders. (2020). Eating disorder statistics. <https://anad.org/education-and-awareness/about-eating-disorders/eating-disorders-statistics/>

The longer the duration of an ED, the harder it is to recover.



Early recognition with treatment will help decrease morbidity and mortality.

Campbell, K., & Peebles, R. (2014). Eating disorders in children and adolescents: State of the art review. *Pediatrics*, 134(3), 582–592. <https://doi.org/10.1542/peds.2014-0194>

Why do we want to raise awareness to high school students?

- There are only a few school-based programs that educate students on the dangers of EDs.
- EDs are often underdiagnosed before lifelong and chronic health conditions occur.
- EDs often begin during adolescence.



Theories



Phenomenology
of Body



and



Social
Comparison

Phenomenology of Body

The theory was developed by a French philosopher, Maurice Merleau-Ponty in 1945.

His theory centers on how we perceive our bodies as our means of relating to our world. The development of eating disorders is associated with body image disturbances.

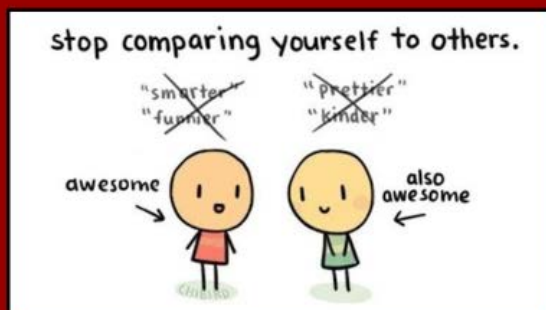


Consider how the phenomenology of body image is associated with eating disorders. The perception of body image is complex as many often judge their worth on how they perceive their body.

Disturbances in body images often lead to the desire to alter the body shape and weight, which usually begins with dieting. As a result, an eating disorder frequently develops.

Albertsen, M. N., Natvik, E., & Råheim, M. (2019). Patients' experiences from basic body awareness therapy in the treatment of binge eating disorder -movement toward health: A phenomenological study. *Journal of Eating Disorders*, 7(1). <https://doi.org/10.1186/s40337-019-0264-0>

Merleau-Ponty, M. (2012). *Phenomenology of perception*. (12th ed.; D. A. Landes, Trans.). London: Routledge.



Leon Festinger's *Social Comparison Theory* expounded upon the phenomenology of the body theory in 1954.

The foundation of the theory is that we evaluate by comparing ourselves to others.

Bergstrom, R. L., Neighbors, C., & Malheim, J. E. (2009). Media comparisons and threats to body image: Seeking evidence of self-affirmation. *Journal of Social and Clinical Psychology*, 28(2), 264-280. <https://doi.org/10.1521/jscp.2009.28.2.264>

Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117-140. <https://doi.org/10.1177/001872675400700202>

**End of
Session One**

**Session Two:
Defining Eating
Disorders**

Anorexia Nervosa

Adolescents with anorexia nervosa may see themselves as overweight, even when they are dangerously underweight.

They typically weigh themselves repeatedly, severely restrict the amount of food they eat, often exercise excessively, and may force themselves to vomit or use laxatives to lose weight.

AN has the highest mortality rate of any mental disorder.

Death is often a result of this disorder from complications associated with starvation or suicide.

National Institute of Mental Health. (2016). Eating Disorders.
<https://www.nimh.nih.gov/health/topics/eating-disorders/index.shtml>





Anorexia Symptoms



Symptoms:

- Restricted eating
- Extreme thinness, or emaciation
- A relentless pursuit of thinness and unwillingness to maintain a normal or healthy weight
- Intense fear of gaining weight
- Distorted body image, a self-esteem that is heavily influenced by perceptions of body weight and shape, or a denial of the seriousness of low body weight

National Institute of Mental Health. (2016). Eating Disorders.
<https://www.nimh.nih.gov/health/topics/eating-disorders/index.shtml>


Other symptoms of anorexia nervosa may develop over time.

- Thinning of the bones, which is referred to as osteopenia or osteoporosis
- Mild anemia and muscle wasting and weakness
- Brittle hair and nails
- Dry and yellowish skin
- Growth of fine hair all over the body referred to as lanugo
- Severe constipation
- Low blood pressure, slowed breathing and pulse
- Damage to the structure and function of the heart
- Brain damage
- Multi-organ failure
- Decrease of internal body temperature, causing a person to feel cold all the time
- Lethargy, sluggishness, or feeling tired all the time
- Infertility

National Institute of Mental Health. (2016). Eating Disorders.
<https://www.nimh.nih.gov/health/topics/eating-disorders/index.shtml>

Bulimia Nervosa

People with bulimia nervosa have recurrent and frequent episodes of eating unusually large amounts of food and feeling a lack of control over these episodes. This binge-eating is followed by behavior that compensates for the overeating such as forced vomiting, excessive use of laxatives or diuretics, fasting, excessive exercise, or a combination of these behaviors. People with bulimia nervosa may be slightly underweight, average weight, or overweight.



National Institute of Mental Health. (2016). Eating Disorders.
<https://www.nimh.nih.gov/health/topics/eating-disorders/index.shtml>

Bulimia Nervosa Symptoms

- Chronically inflamed and sore throat
- Swollen salivary glands in the neck and jaw area
- Worn tooth enamel and increasingly sensitive and decaying teeth as a result of exposure to stomach acid
- Acid reflux disorder and other gastrointestinal problems
- Intestinal distress and irritation from laxative abuse
- Severe dehydration from purging of fluids
- Electrolyte imbalance (too low or too high levels of sodium, calcium, potassium, and other minerals) which can lead to stroke or heart attack



National Institute of Mental Health. (2016). Eating Disorders.
<https://www.nimh.nih.gov/health/topics/eating-disorders/index.shtml>

Binge-eating disorder

People with binge-eating disorder lose control over their eating. Unlike bulimia nervosa, purging, excessive exercise, or fasting are not typical with BED. As a result, people with BED often are overweight or obese. BED is the most common eating disorder in the U.S.



National Institute of Mental Health. (2016). Eating Disorders.
<https://www.nimh.nih.gov/health/topics/eating-disorders/index.shtml>

Binge-Eating Disorder Symptoms



- Eating large amounts of food in a specific amount of time
- Eating even when full or not hungry
- Eating fast during binge episodes
- Eating to the point of uncomfortably full
- Eating alone or in secret to avoid embarrassment
- Feeling distressed, ashamed, or guilty about eating
- Frequently dieting, possibly without weight loss

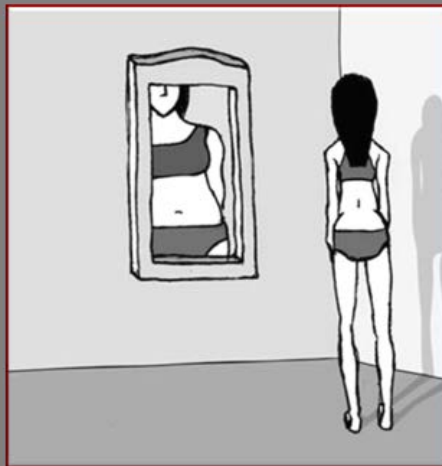
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<https://www.nimh.nih.gov/health/topics/eating-disorders/index.shtml>

End of Session Two

Session Three:

Statistics
Goals
Strategies

Statistics Among Females



- One in five females struggle with an ED.
- Females with EDs have a death rate 12 times higher than their peers
- 45% of U.S. females are on a diet on any given day and 20% of dieting leads to an ED
- 52% of females fast or skip meals
- 90% of females with an ED are between 12-25 years old

Texas Eating Disorder Association. (TEDA, 2019). The big picture. www.youredeas.org

Statistics Among Males

- One in four people with an ED are males
- Body builders, gymnasts and runners have a higher risk of developing an ED
- 60% of males are dissatisfied with their bodies
- 33% of adolescent males engage in unhealthy weight control behaviors
- Males struggle with all forms of EDs
- 10 million U.S. men will struggle with an ED in their lifetime



Texas Eating Disorder Association. (TEDA,2019). The big picture. www.youteda.org



The Media's Role in Eating Disorders

We live in a society where the media focuses on attractiveness, promoting unrealistic body shapes, which often leads to dieting during the high school years. The Centers for Disease Control and Prevention school health guidelines are integral for providing students with an education that promotes healthy eating and physical activity. However, it often becomes confusing about what healthy eating means, especially as the media and several fitness programs label foods as "good" or "bad."

Centers for Disease Control. (2019). School health guidelines. <https://www.cdc.gov/healthyschools/npao/strategies.htm>



This program will provide strategies for prevention and early recognition before a full-blown disease or chronicity occurs.

G·U·I·D·E

{grow, unite, influence, direct, empower}

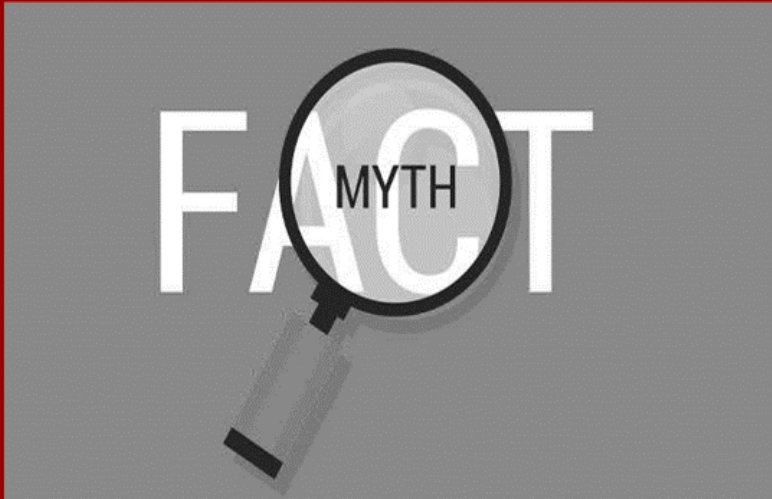
The goal centered on this initiative is referred to as the acronym G·U·I·D·E.

- Promote *growth* by providing information on eating disorders.
- Encourage peers to *unite* with one another or a member of the support team for preventing disordered eating or reducing the risk of a full-blown eating disorder.
- It intends to build a foundation for *influencing* each other with positive behaviors that will *direct* and *empower* a sense of self-worth not centered on the appearance of body images.



**End of
Session Three**

**Session Four:
Myths and Facts**



Myths about eating disorders

- Eating disorders are a choice. I just need to tell my friend to get over it.
Eating disorders are complex medical illnesses that individuals do not choose.
- It is just eating, so it can't be that big of a deal.
Eating disorders have the highest mortality rate of any psychiatric illness.

Myths continued

- The main eating disorder symptom I need to worry about is weight loss.
Although restrictive eating and weight loss are common with anorexia nervosa, many people with eating disorders do not lose weight as a result of their eating disorder. There are many physical and behavioral symptoms with eating disorders, and a change in weight is only one of many effects.
- Once I gain a little weight, I will be fine.
Weight gain is only the first step to recovery.

Eating Disorder Signs and Symptoms

- Incessantly talks about food, weight, shape, exercise, or cooking, etc.
- Expresses body image concerns, such as being too fat; seems overly concerned about appearance; constantly compares self to others; refers to self as fat; strives to create a "perfect" image; continually seeks reassurance about appearance
- Changes in attitude
- Appears sad or depressed and worthless
- Intolerance for imperfections in eating or social life
- Displays rigid or obsessive thinking about food or eating
- Overvalues self-sufficiency; reluctant to ask for help
- Unwilling to acknowledge recent changes

National Eating Disorders Association. (2018). *Educator Toolkit*.
<https://www.nationaleatingdisorders.org>

Common Behaviors with Eating Disorders

- Diets or pretends to eat, then may throw food away; skips meals
- Rigid dietary rules or strict diets
- Constantly talks about food; may refuse to eat food prepared by others
- Utilizes food apps or tracks calories
- Denies difficulty with food or body image despite evidence of risk factors

National Eating Disorders Association. (2018). *Educator Toolkit*.
<https://www.nationaleatingdisorders.org>



Understanding Terms

Disordered Eating: refers to abnormal eating behaviors. The main difference between disordered eating and eating disorders is the level of severity and consistency of behaviors.

Purging: behaviors used to get rid of consumed food (laxatives, vomiting, excessive exercise, diuretics)

Comorbidity: the simultaneous presence of two medical conditions

Chronicity: Chronic medical conditions or having an illness for a long time or constantly recurring.





Chronic and Long-Term Effects of Eating Disorders that are Often Common in Adulthood

- **Osteoporosis:** Bone loss is common with eating disorder, especially in women, but men can also lose bone density from eating disorders.
- **Cardiovascular:** Food restriction and purging dehydrate the body, resulting in abnormal electrolyte levels, which leads to decreased muscle function. Electrolyte imbalances can result in critical conditions, such as hypokalemia (low potassium) and hyponatremia (low sodium).
- **Cardiovascular continued:** When the heart is not functioning well, it can result in heart disease, heart arrhythmia (irregular heartbeats that are common with electrolyte imbalances), cardiomyopathy (weak heart, which makes it hard to pump blood and can lead to heart failure), and muscle weakness.
- **Brain:** During prolonged malnourishment, the body's organs begin to shut down due to lack of nutrients and calorie energy. Since the brain is an organ, when it doesn't get enough nutrition, it loses brain matter.
- **Reproduction:** Eating disorders can affect a female's ability to become and remain pregnant.


Case Scenario

Zoey was a sophomore, one of the most popular girls in high school. Everyone loved her exuberant spirit. Academically, Zoey was in the top ten of her class. She was active in cheerleading and dance competitions. She started taking dance at four years of age. Zoey's peers thought her life was nearly perfect. She was accepted into the pre-medical program at Wake Forest University (WFU). She had wanted to become a Pediatrician.

Zoey's family dynamics seemed as perfect as the rest of her life. She had loving parents and a younger brother. Her family was always going to her dance competitions. Her mom was her biggest supporter as she made sure her make-up and hair were perfect for the events. Although Zoey was appreciative of everything her mom did, during the dance recital her senior year, she started to become angry that her mom placed so much attention on her appearance and poise. She reminded her to smile and be kind to everyone. Zoey began to realize that her life was a facade.

The summer before starting at WFU, her best friend noticed her withdrawal from social events with friends. She claimed that she did not want to eat pizza with them as it upset her stomach. Zoey's friends noticed changes in her behaviors, but physically she appeared healthy in her physical appearance; albeit, she was not as vibrant as usual.





Case Scenario Continued

During the spring of Zoey's freshman year at WFU, a friend took her to the nearest urgent care as Zoey had been experiencing dizziness and passed out. After lab work and an assessment, she was discharged and told that she was anemic and instructed to take iron supplements. During the summer after her freshman year, her parents noticed a change in Zoey's behavior and physical appearance but dismissed it as Zoey insisted that she was okay and had just not been taking her iron supplements.

During her sophomore year, Zoey's cognitive ability had diminished, and her grades dropped. During the spring, Zoey was taken by ambulance to the emergency department at Wake Forest Baptist Health (WFBH). She was admitted to the hospital with low blood pressure, low sodium, low potassium, anemia, underactive thyroid, and irregular heart rate. Zoey did not reveal her issues with eating, but she did express that she was depressed.

Zoey had been suffering from bulimia nervosa since her sophomore year in high school, but it was undiagnosed until her junior year at WFU. She was taken to WFBH, but this time she had a cardiac arrest. Fortunately, Zoey survived, but she had to drop out of college for one year due to medical conditions. If early intervention had been pursued, it would have prevented lifelong medical conditions and significantly shortened the recovery process.

Zoey's Long-Term Clinical Picture


Zoey had been using laxatives consistently since her sophomore year in high school. She occasionally took a "water-pill" when she could get some of her mom's medication.

Zoey's long-term effects from persistent dehydration from laxatives and diuretics:

- Hypothyroidism (the thyroid gland, responsible for the body's metabolism, is not able to produce enough of the thyroid hormone)
- Osteoporosis: lower bone density or strength
- Cardiomyopathy: a weak heart muscle
- Kidney damage
- Liver damage

While Zoey's experiences are severe, it illustrates the need for early recognition and intervention to avoid lifelong chronic medical conditions.

Early Recognition and Intervention is the Key to Avoid Lifelong Medical Conditions, or Even Death



End of Session Four



Session Five: Building Healthy Attitudes

Mindfulness

Practice Mindfulness: Mindfulness is a type of meditation that allows you to focus on being intensely mindful of what you are feeling in the moment, without judgment. Mindfulness allows us to be present at-the-moment and can be used to eat and exercise intuitively.

Examples of mindfulness:

- Practice living in the moment.
- Focus on breathing.
- Evaluate if the food is what you want rather than what society labels as good or bad foods.
- Being present makes food more gratifying.
- Focus on positive affirmations, reminding yourself that you are your unique self, and your shape or size does not make who you are.
- You are a unique individual and not meant to be compared to others.
- You can fulfill your purpose by being who you are, not what you think others expect of you.



**Love your body and
your unique self.
You have a purpose.**



Our logo for this
program is the
sun as it
represents life,
influence, and
strength.

Sun Signs. (2020c). Everything under the sun.
<https://www.sunsigns.org/sun-symbol-meanings/#/~:text=>

Close your eyes,
meditate on the warm sun,
with thoughts that affirm
your value as you are.

You are perfect as you are in this
moment.

Eating foods that society labels
as *good* or *bad* is a myth.

Your awareness and
intuitiveness will tell you what
your body needs to eat, or
how much exercise you need.

Do not let the negativity of others
influence your thoughts of who you
are.

You are worthy as you are.

Mindfulness Exercise

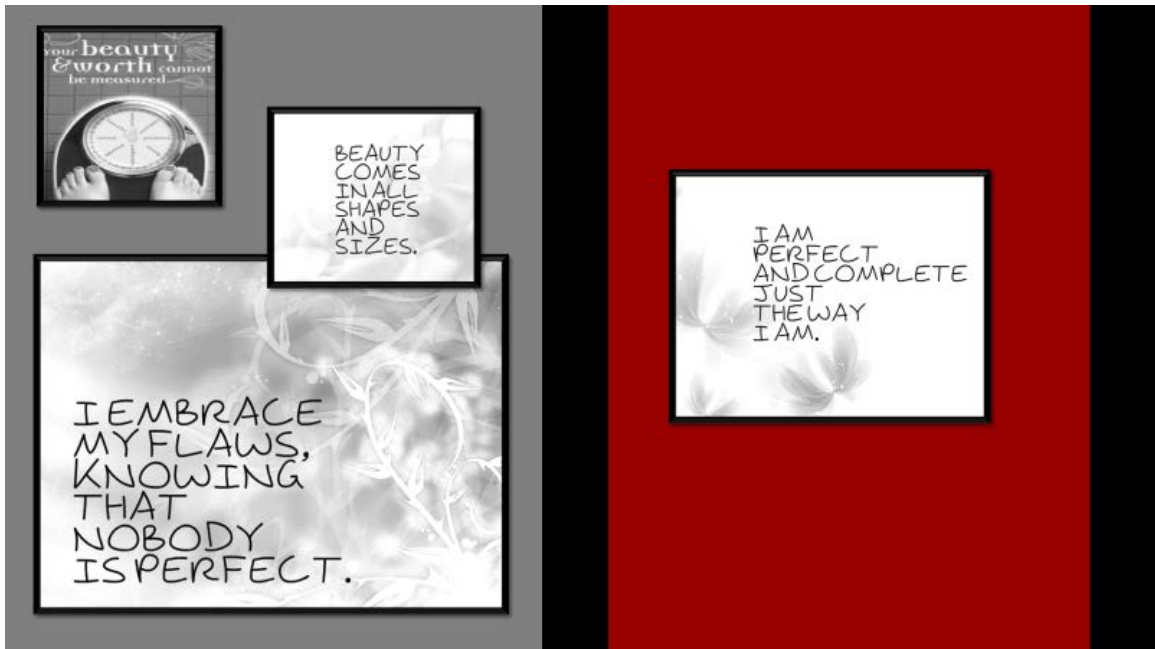


- Eat when you are hungry
- Stop when you are full
- Honor your feelings without using food
- Reject the dieting mentality

BALANCE-VARIETY-MODERATION

Intuitive Eating

Texas Eating Disorder Association. (TEDA, 2019). *The big picture*. www.yourteda.org



Affirmations

- Think positively about yourself and your body.
- Value your uniqueness.
- Practice self-affirmations.
- Learn to appreciate and love your body.
- Treat yourself with kindness and respect.
- Avoid the scale and BMI calculators.
- Avoid fad diets and listen to what your body wants.
- While some fitness apps for tracking food are great for those that are following a specific diet for a medical issue, they do not allow you to practice healthy mindfulness and intuitive eating.

I MATTER

and what I have to offer
this world also Matters.

Set Point

Set point refers to the weight range in which your body is programmed to function optimally without controlling to maintain a certain weight.

You have no control over your height, or eye color. Your body is biologically and genetically determined to weigh within a specific weight range without you having to diet or use fitness apps to track food.

Set points vary for every individual. Therefore, you must listen to your own body by practicing mindfulness and intuitive eating.

If you have ever dieted or know someone who has, they lose weight effortlessly by restricting or lowering their calorie intake. Nevertheless, have you noticed they generally gain the weight back after they go off the diet? Most times they gain back more weight than before they started.

When you go below your body's natural set point, your appetite and metabolism try to return you to your set point. The metabolism slows to try to conserve energy.

Your body wants to retain its natural weight without you having to restrict calories or go on a diet to eat certain foods.

Mirror-Mirror. (2020). Set point theory. <https://www.mirror-mirror.org/set.ht>

Trust yourself,
allowing your
body to obtain its
Set Point

***Love and
Trust
Yourself***

***Be
accountable
to each
other.***

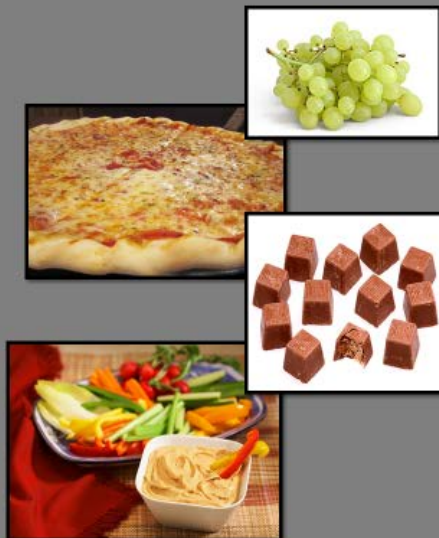
G•U•I•D•E

Achieve **growth** by **uniting** with peers to **influence**, **direct**, and **empower** each other to accept one another's individual value and worth, ignoring the distorted perceptions that social media promotes.

End of Session Five

Session Six:

**Interactive Lunch Activity
and Eating Disorder
Questionnaire**



Mindful Eating

Our lunch will consist of cheese pizza, mixed vegetables, grapes, and chocolate. You will be directed to use mindfulness throughout the lunch activity.

Before the lunch is served, you will be instructed to sit comfortably, close your eyes, and take deep breaths, allowing your thoughts to analyze their hunger cues.

You will be served the vegetables first and instructed to eat slowly to observe the texture and taste of each bite. Next, you will be given a piece of pizza, reminding you to eat slowly, noticing the saltiness, the distinct flavor of garlic on the pizza crust, and the gooeyness of the cheese. White and red grapes will be given to each of you as you will be instructed to eat one at a time and determine if you can distinguish the white and red grapes. You will be given a piece of milk chocolate and dark chocolate and instructed to differentiate the taste between them.

After the lunch activity, there will be discussions on your thoughts about the experience.

Did you label any of the foods as good or bad?

Did mindful eating make a difference in the enjoyment of food?

Do you know individuals that rely on a specific diet, food, or fitness apps or weigh themselves daily to determine how much they should eat for the day?

Mindful eating and intuitiveness will allow you to enjoy food more, developing a sense of trust, enabling intuitive eating to determine your set point.



I will not overeat, nor will I under eat. I will intuitively listen to what my body wants and needs.



If I use intuitive eating, I trust that my body will go to its Set Point.



Intuitive Eating Principles

1. Reject the diet mentality.
2. Honor your hunger.
3. Make peace with food.
4. Challenge the food police.
5. Respect your fullness.
6. Discover the satisfaction factor.
7. Honor your feelings with food.
8. Respect your body.
9. Exercise-feel the difference.
10. Honor your health.

Richards, P. S., Crowton, S., Berrett, M. E., Smith, M. H., & Passmore, K. (2017). Can patients with eating disorders learn to eat intuitively? A 2-year pilot study. *Eating Disorders*, 25(2), 99–113. <https://doi.org/10.1080/10640266.2017.1279907>

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End of Session Six

Session Seven:

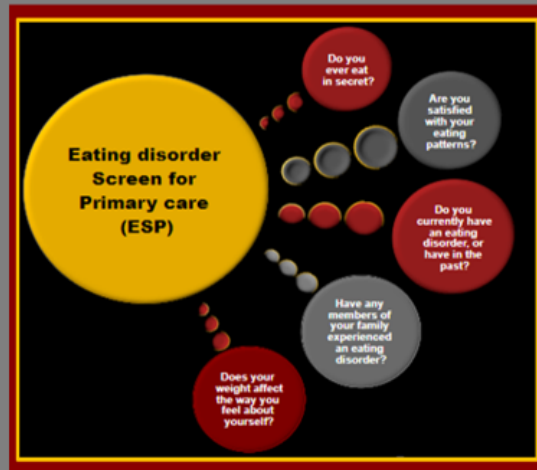
*Eating disorder Screen for
Primary care (ESP)*

Eating disorder Screen for Primary care (ESP)

An assessment tool, Eating disorder Screen for Primary care (ESP), will allow you to evaluate if you are at risk for an ED.

If you believe you have an ED or are at risk for developing an ED, the school support staff is available to guide you.

Fairburn, C., Cooper, Z., & O'Connor, M. E. (2014). Eating disorder examination.
<https://www.cbte.co/site/download/ede-17-0d/?wpdmcl=615&masterkey=5c644ef9b6149>



Resources

National Eating Disorder Association Helpline
<https://www.nationaleatingdisorders.org/help-support/contact-helpline>

Counseling Center

Magnolia Center for Counseling
and Eating Recovery
1400 Old Mill Cir B
Winston-Salem, NC 27103
(336) 407-9548

End of Session Seven

This session is open discussion, allowing you to reflect on the program contents.

Surveys will be distributed for determining the strengths of the program and areas of improvement.


Session Eight: Review and Program Evaluation

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<https://www.sunsigns.org/sun-symbol-meanings/#~:text=>
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Appendix B

Raising Awareness of Eating Disorder Flyer



**EATING DISORDERS:
A SERIOUS PROBLEM THAT CAN IMPACT
HEALTH**

**RAISING AWARENESS OF
EATING DISORDERS**

The most common eating disorders are listed and defined below.

Anorexia nervosa: Adolescents with anorexia nervosa see themselves as overweight, even when they are dangerously underweight. They typically weigh themselves repeatedly, severely restrict the amount of food they eat, often exercise excessively, and may force themselves to vomit or use laxatives to lose weight.

Bulimia nervosa: People with bulimia nervosa have recurrent and frequent episodes of eating unusually large amounts of food and feeling a lack of control over these episodes. This binge-eating is followed by behavior that compensates for the overeating such as forced vomiting, excessive use of laxatives or diuretics, fasting, excessive exercise, or a combination of these behaviors.

Binge-eating disorder: People with binge-eating disorder lose control over their eating. Unlike bulimia nervosa, purging, excessive exercise, or fasting are not typical with binge-eating disorder.

Early recognition with effective interventions is the key to preventing lifelong medical conditions that often occur from an eating disorder. If you are experiencing an eating disorder, the school support staff are available to guide you.

**EATING DISORDERS
ARE ON THE RISE,
AND THEY OFTEN
START IN
ADOLESCENCE.**

Consider the following questions to evaluate if you might be undergoing an eating disorder.

Are you satisfied with your eating?

Does your weight affect the way you feel about yourself?

Do you follow rigid diets or micromanage your food?

Do you ever eat in secret?

Do you feel guilty after you eat?

Intuitive Eating Principles

Reject the diet mentality ~ Honor your hunger ~ Make peace with food ~ Challenge the food police ~ Respect your fullness ~ Discover the satisfaction factor ~ Honor your feelings without food ~ Respect your body ~ Exercise-feel the difference ~ Honor your health

Trust yourself, allowing your body to maintain its
Set Point
 without rigid diets or micromanaging the food you eat.



GUIDE

{growth ~ uniting ~ influencing ~ directing ~ empowering }

Achieve **growth** by **uniting** with peers to **influence**, **direct**, and **empower** each other to accept one another's individual value and worth, ignoring the distorted perceptions that social media promotes.



Appendix C

Raising Awareness of Eating Disorders Questionnaire

Raising Awareness of Eating Disorders Questionnaire

Student Name: _____

If you experience an eating disorder, how likely are you to confide in the support team?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Very likely

Not very likely

If you experience an eating disorder, how likely are you to confide in a friend?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Very likely

Not very likely

If you have concerns about a friend's eating behaviors, how likely will you talk to the support team about your friend's eating behaviors?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Very likely

Not very likely

If you have concerns about a friend's eating behaviors, how likely will you talk to the friend about their eating behaviors?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Very likely

Not very likely

Would you like the support team to contact you about:

Your eating behaviors?

☐ Yes | ☐ No

A friend's eating behaviors?

☐ Yes | ☐ No

Comments (optional):

Appendix D

Eating disorder Screen for Primary care (ESP)

Eating disorder Screen for Primary care (ESP)

Student Name: _____

Are you satisfied with your eating patterns?

☐ Yes | ☐ No

Do you ever eat in secret?

☐ Yes | ☐ No

Does your weight affect the way you feel about
yourself?

☐ Yes | ☐ No

Have any members of your family experienced an
eating disorder?

☐ Yes | ☐ No

Do you currently have an eating disorder, or have you
ever encountered an eating disorder in the past?

☐ Yes | ☐ No

Would you like a member of the support team to
contact you?

☐ Yes | ☐ No

Comments (optional):
