IMPROVING EATING DISORDER IDENTIFICATION IN A PSYCHIATRIC OUTPATIENT CLINIC USING THE SCOFF+ BINGE EATING QUESTION SCREENING TOOL: A QUALITY IMPROVEMENT PROJECT

by

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A scholarly project submitted in partial fulfillment

of the requirements for the degree

of

Doctor of Nursing Practice

in

Psychiatric/Mental Health

MONTANA STATE UNIVERSITY
Bozeman, Montana

May 2024

DEDICATION

This project is dedicated to my past eating disorder patients, who have inspired me to advocate for others who may be struggling with anorexia, bulimia, binge eating, and other disordered eating patterns.

ACKNOWLEDGEMENTS

I would first like to thank my committee chair, Dr. Miller, for her constant encouragement, kindness, and patience throughout my project. Also, I thank Dr. Secor for her additional insight and expertise. I wish to thank Dr. Borst who was there in addition to Dr. Miller during a particularly difficult time with my project. I am grateful for all my Montana State University professors both in the undergraduate and graduate programs for encouraging me to pursue my goals and accomplish my dreams.

Additionally, I would like to express my gratitude for the outpatient practice staff who took the time out of their workflows to implement my project. Without them this project would not have been possible. I would like to recognize Jennifer Westenskow, Shelby Brown, Jeni Gochin, Hannah McKinney, and Paige Reddan for not only educating me on the treatment of eating disorders but provided the inspiration for this project and my goal to promote the need for identifying eating disorders early.

Most importantly, I would like to thank my husband, Byron Rollins; my parents, Roger and Lisa Yarborough, my in-laws, Josh and Stephanie Rollins; my grandmas, Ladonna Rollins and Patty Nield, and my aunts, Mykell Wallace and Traci Fulford who supported me when this journey seemed unattainable. Thank you for helping me achieve my dream of receiving a doctorate degree and becoming a psychiatric mental health nurse practitioner.

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ABSTRACT

Eating disorders are a set of diagnoses that significantly impact the world, families, and individuals. Anorexia nervosa, one type of eating disorder, has the highest mortality rate of the psychiatric diseases, second to opioid use disorder. They are also significant contributors to suicide. Currently, minimal proactive screening of eating disorders is occurring despite the severe medical and psychiatric complications that are associated with eating disorders. The Doctor of Nursing Practice quality-improvement project aimed to implement the SCOFF+BED screening tool during all initial evaluation appointments at an outpatient psychiatric practice. The project was implemented for seven weeks, from January 22, 2023, to March 15, 2023, with participation from eight psychiatric mental health nurse practitioners and their scheduled patients. The following procedures took place: (1) A pre-survey assessing provider confidence was given; (2) Stakeholders were educated on the most recent eating disorder practice guidelines; (3) Providers administered the SCOFF+BED during all initial psychiatric evaluations; (4) Providers further assessed, treated, and referred patients with positive scores based on their discretion; (5) A post-survey assessing provider confidence was given. Findings were consistent with the overall prevalence of eating disorders in the United States. Individual eating disorder prevalence was only consistent with the national averages for binge eating disorder. Additionally, following the educational presentation for providers, post-survey results were increased when compared to pre-survey results; however, they did not meet the aim of the study.

CHAPTER ONE

SCOPING REVIEW

Introduction

Eating Disorders (EDs) are often poorly recognized in both primary care settings and mental health clinics (Jones et al., 2013; Lakeman & McIntosh, 2018). Mental health providers frequently have little to no confidence in not only identifying but also treating EDs, with the majority feeling as though they are challenging to treat (Lakeman & McIntosh, 2018). Anorexia nervosa (AN) has the highest mortality rate of all psychiatric diseases, second to opioid use disorder (American Psychiatric Association, 2023b). Additionally, both AN and bulimia nervosa (BN) have higher rates of suicide when compared to the general public (Mandelli et al., 2019; Preti et al., 2011). BN has higher rates of attempted suicide at 21%, with AN following at 12.5%. BN also has high rates of self-harming behaviors (Mandelli et al., 2019). Eating disorders frequently co-exist with other mental health disorders, such as substance use disorders, major depressive disorder, generalized anxiety disorder, attention-deficit hyperactivity disorder, borderline personality disorder, and obsessive-compulsive disorder, further increasing their overall morbidity and mortality. The National Institute of Mental Health (n.d.) estimates that 50.0%-63.2% of people with eating disorders have sought treatment for an emotional problem. In contrast, only one-third sought treatment specifically for an eating disorder (National Institute of Mental Health, n.d.). Using an evidence-based practice guideline to help identify, treat, and refer patients to higher levels of care is one safe and effective way to ensure patients receive the care they need. The author of this Doctor of Nursing Practice (DNP) quality-improvement (QI)

project aimed to enhance evidence-based practices within an outpatient psychiatric clinic focused on identifying, assessing, and treating patients with an ED.

Background and Significance

Overview of Eating Disorders

EDs are a group of conditions that include anorexia nervosa (AN), bulimia nervosa (BN), binge eating disorder (BED), rumination disorder, avoidant restrictive food intake disorder (ARFID), other specified feeding or eating disorder (OSFED), and unspecified feeding or eating disorder (UFED). Disordered eating behaviors such as restriction, purging, bingeing, laxative use, diuretic use, or excessive exercise are hallmark signs of EDs. According to the 5th edition of the Diagnostic and Statistical Manual (DSM-V), EDs must also impact the patient's life and ability to function. Eating disorders may include weight changes. To meet the criteria, patients often need a certain number of behaviors per week, such as with BN, where they must have used behaviors at least once a week for three months (American Psychiatric Association, 2022).

The five EDs explored in the DNP QI project are anorexia nervosa (AN), bulimia nervosa (BN), binge-eating disorder (BED), other specified feeding or eating disorder (OSFED), and unspecified feeding or eating disorder (UFED). Anorexia nervosa characterizes a restrictive diet resulting in a considerably low body weight. Additional criteria include fear of weight gain or behaviors that prevent weight gain, such as overexercising. The two subtypes of AN include the restricting type and the binge/purge type. Additionally, there are four levels of severity based on the Body Mass Index (BMI) scale. Mild encompasses a BMI $\geq$ 17 kg/m^2, moderate is 16-16.99 kg/ m^2, severe is 15-15.99 kg/m^2, and extreme AN is a BMI <15 kg/m^2 (American Psychiatric Association, 2022). Body mass index is one way to interpret a person’s weight to help predict the

health of the person(CDC, 2022). Bulimia nervosa is similar in that behaviors are used to prevent weight gain; however, it includes other compensatory weight loss mechanisms, including purging, laxatives or diuretics, stimulants, fasting, or excessive exercise. In addition, patients must also meet the criteria for recurrent binge episodes. The DSM-V also lists severity levels based on inappropriate compensatory behaviors in a week, with one to three behaviors constituting a mild case and 14 or more in extreme cases (American Psychiatric Association, 2022).

Binge eating disorder involves recurrent binges, which means eating more than what the average person would eat in a similar situation during a distinct period. At least three characterize the episodes: rapid eating, eating until uncomfortably full, eating large amounts when not hungry, eating alone, and feeling disgust or guilt following a meal (American Psychiatric Association, 2022). Binge eating disorder is categorized as mild, moderate, severe, and extreme based on the number of binge episodes in a week, where mild is one to three and extreme with 14 or more occurrences (American Psychiatric Association, 2022). Other specified feeding or eating disorder includes ED symptoms that are clinically significant but do not meet the criteria for one of the other eating disorders. Examples of EDs that do not align with established criteria include atypical anorexia, where a patient's weight is not significantly low; however, they engage in restrictive eating patterns. Bulimia nervosa of low frequency, where episodes occur less than once per week; binge eating disorder of low frequency, where binge episodes are fewer than once a week; and purging disorder, which is the absence of binge episodes in BN, are additional examples. Unspecified feeding or eating disorder encompasses

any presentation where the ED does not fit any of the other diagnoses available but still causes clinically significant distress (American Psychiatric Association, 2022).

There is no known cause of EDs, but several factors may play a significant role. These factors can include society's ideal view of the body, social media, perfectionism, emotional dysregulation, obsessive-compulsive thoughts, depression, anxiety, fears of being overweight, high-pressure environments such as school, bullying, body criticism, complicated family relationships, and family history (Mental Health UK, n.d.).

Complications of Eating Disorders

Restricting, purging, and binge eating can affect all organ systems in varying degrees from person to person. It is important to note that a normal BMI (18.5-24.9) does not indicate a healthy body. Signs of malnutrition may still occur. Conversely, those with low BMIs may not exhibit outward symptoms. Lab work and other tests may be needed to reveal the effects of an ED on the body. Symptoms often reported by those with eating disorders include abdominal pain or discomfort, constipation, early satiety, bloating, nausea, gastroesophageal reflux, dizziness, headaches, and absence of menses (American Psychiatric Association, 2023a; Guidiani, 2019). In addition to these symptoms, each ED can pose significant medical complications.

Anorexia Nervosa Restriction can cause delayed gastric emptying, making recovery difficult as patients feel full quickly. Bradycardia, orthostatic hypotension, mitral valve prolapse, pericardial effusion, and myocardial atrophy are cardiovascular complications exhibited in patients with AN (American Psychiatric Association, 2023a). Additionally, electrolyte imbalances such as hypokalemia and hyponatremia can lead to abnormal heart rhythms (Guidiani, 2019).

Bulimia Nervosa Chronic purging can harm the body, specifically the esophagus. Barrett's Esophagus is one complication resulting from repeated exposure to stomach acid. Hematemesis occurs due to repeated binges and then vomiting, irritating the lining of the stomach. Laxative abuse can lead to an atonic colon, pancreatitis, and kidney stones. Diuretic use can cause permanent kidney failure, severe dehydration, and electrolyte abnormalities. The major complication of BN is hypokalemia, or low potassium, which can be fatal as it can cause cardiac arrest (Guidiani, 2019).

Binge Eating Disorder In addition to the general complications of EDs listed above, BED can also cause significant medical problems, including obesity, which is a BMI greater than 30. Of patients with BED, 71% have a BMI above 30. Nutritional deficiencies occur as binges are high in sugary and fatty foods. Vitamins and minerals become depleted due to the lack of whole fresh foods, protein, and drinks such as milk and water. Other complications can include cancer, obstructive sleep apnea, and oligomenorrhea (Wassenaar et al., 2019).

Adolescents Nutritional disturbances can significantly impact adolescents (ages 10-18) and their growing bodies. Caloric intake and protein needs are crucial to growth. Bone mineralization is vital during this phase of life, and low bone density in adolescence can cause early osteopenia and osteoporosis (Guidiani, 2019). Pubertal development is also occurring, and nutritional deficiencies can lead to amenorrhea, or the absence of menses, in females. Low estrogen (below 22.4 pg/mL) can cause the ovaries and uterus to shrink back to pre-pubescent sizes (Guidiani, 2019). In terms of BED, over 25% of children and adolescents who are obese acknowledged participating in binge eating and felt as though they had a loss of control when eating (Wassenaar et al., 2019). According to the Utah Department of Health and Human

Services (n.d.), adolescents with eating disorders experience increased rates of suicidal ideation and attempts when compared to their counterparts. They are more likely to be bullied and experience intimate partner violence both physically and sexually (Utah Department of Health & Human Services, n.d.).

Emerging Adults Adults ages 19-25 are classified as emerging adults, meaning the transitional phase between adolescence and adulthood (Arnett, 2000; Gonidakis et al., 2018). Emerging adulthood is a time for identity exploration when many possibilities exist. It can also be uncertain and unstable (Arnett, 2000; Gonidakis et al., 2018). This period is also when emerging adults begin making decisions for themselves, including what they eat, exercise routines, and further develop their view of their bodies. Cain et al. (2010) found that 18% of emerging adult females restricted their diets, and another 18% binge-ate (Gonidakis et al., 2018). Gonidakis et al. (2018) found that in this age group, gender was highly influential, and women were more likely to experience an ED. Eating disorders can further destabilize emerging adults, making it difficult to form their identity. Emerging adults may need to drop out of school or stop working to address their ED. Additionally, malnutrition increases stress on the body and mind (Gonidakis et al., 2018).

Prevalence

Eating disorders impact people all over the world of all ages and races. According to the National Comorbidity Survey Replication, the median age for BN and AN is 18 years of age, while BED is 21. Females are more likely than males to have an ED. They are five times more likely to have BN and three times more likely to have AN. The lifetime prevalence for BED is 2.8%, 1.0% for BN, and 0.6% for AN. Of those with BN, 43.9% had a severe impairment, as

indicated on the Sheehan Disability Scale (National Institute of Mental Health, n.d.). The LGBTQ+ community is more likely to develop an eating disorder, with a lifetime prevalence of 1.96% for BED, 3.60% for BN, and 1.93% for AN (American Psychiatric Association, 2023a). The lifetime prevalence for adolescents with an ED is 2.7%. Adolescent females were more likely to have an ED at 3.8% as compared to males, which was 1.5% (National Institute of Mental Health, n.d.). Most likely, these numbers are higher as statistics often leave out OSFED and UFED (American Psychiatric Association, 2023a).

	Anorexia nervosa	Bulimia nervosa	Binge eating disorder
All ages	0.6%	1.0%	2.8%
LGBTQ+	1.93%	3.60%	1.96%

Table 1. Prevalence of Eating Disorders

Costs Associated with Eating Disorders

Monetary Total tangible economic costs in the United States associated with eating disorders were estimated to be $64.7 billion (Streatfeild et al., 2021). Per the affected person, this comes out to $11,808 a year. Individuals bore almost 1/3 of the total costs, with the government and employers sharing about 50%. Family, friends, and other payers covered the remaining costs (Figure 1) (Streatfeild et al., 2021). Other specified feeding or eating disorder comprised the largest share of the costs at $22.8 billion. BED, BN, and AN, respectively, followed. Costs were most significant from the ages of 20-34 years, which is consistent with that age group having a higher prevalence. Men had higher costs per case (Streatfeild et al., 2021). Primary care and outpatient visits comprised the majority of costs, followed by residential care and hospitalizations. Costs surpassed both Parkinson's disease and some cost estimates associated

with schizophrenia. Despite the significant costs associated with EDs, they are still one of the most underfunded diagnoses in terms of research, with an estimated $49.8 million as compared to Parkinson's, with $224 million (Streatfeild et al., 2021).

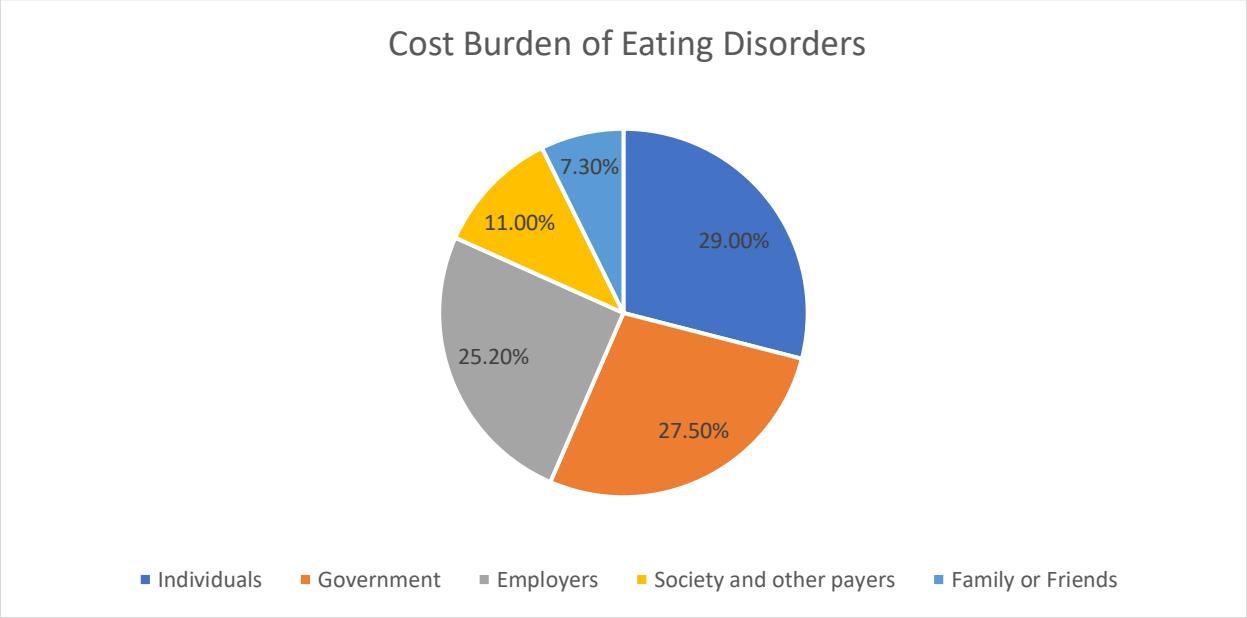

Figure 1. Cost Burden of Eating Disorders

Intangible Loss of Wellbeing Streatfeild et al. (2021) examined the intangible costs associated with EDs using a disability-adjusted life year (DALY) measure, equating to one year of full health loss. DALYs include both years of life lost (YLLs), premature death, as well as years lost from disability (YLDs). Between 2018 and 2019, approximately 1.3 million DALYs occurred in the US due to EDs; 371,795 were YLLs, and 891,871 were YDLs (Streatfeild et al., 2021). Eating disorders impact the patient's quality of life and their family and friends. Caregivers can develop their own psychological distress and mental health difficulties as a result of the cost burden of caregiving (Streatfeild et al., 2021).

Evidence-Based Solution

The American Psychiatric Association (2023a) recently released an updated evidence-based guideline for treating EDs. The guideline first suggests screening patients during all initial evaluations and then conducting an assessment for patients at risk. Following the assessment, treatment options can be discussed, and referrals sent to higher levels of care as deemed necessary. By following these steps, providers can help patients find treatment, avoid medical complications, and reduce overall costs associated with EDs.

Screening Tools for Eating Disorders

Several screening tools exist to help identify patients at risk for an ED. Commonly used screening tools include the Eating Attitudes Test (EAT-26), the Eating Disorder Examination Questionnaire (EDE-Q), the SCOFF (Sick, Control, One-stone, Fat, and Food), and the Stanford-Washington University Eating Disorder Screen (SWED) (Fairburn & Beglin, 1994; Garner et al., 1982; Graham et al., 2019; Morgan et al., 1999). Providers can use the tools individually or together, as each has unique features. The EAT-26 is a 26-question screener to assess ED attitudes and behaviors. Due to the number of questions, it can be time-intensive (Fitzsimmons-Craft et al., 2019; Garner et al., 1982). Similarly, the EDE-Q takes longer to administer as it is a 36-time questionnaire; however, it contains both rating scales and open-ended questions. It aims to assess the occurrence of behaviors and the different aspects of EDs, including concerns with weight, overall body image, or dietary restrictions (Fairburn & Beglin, 1994; Fitzsimmons-Craft et al., 2019). The SWED also uses rating scales with open-ended questions to assess the occurrence of behaviors and consists of 17 items. While this is shorter than the other two, it is

still time-intensive and may be better suited when an ED is suspected (Fitzsimmons-Craft et al., 2019; Graham et al., 2019).

The SCOFF-BED The SCOFF+BED is the tool recommended during all initial psychiatric evaluations by the American Psychiatric Association (2023a). Initially, researchers designed the SCOFF questionnaire as a five-item screening tool to help identify patients at risk for both AN and BN before BED was considered a DSM-V diagnosis (American Psychiatric Association, 2023a). The American Psychiatric Association (APA) (2023a) has now added a 6th question to help aid in identifying patients who also qualify for BED. SCOFF is a pneumonic to help providers remember each question and stands for Sick, Control, One-stone, Fat, and Food. A positive score on at least two of the questions indicates a risk for an eating disorder (American Psychiatric Association, 2023a).

Initial Evaluation Following the use of the SCOFF+BED, the American Psychiatric Association (2023a) recommends including an assessment for all patients with a possible ED. Assessment areas include a history of the patient's height and weight, presence and patterns of eating disorder behaviors, variety of food, fear foods, use of compensatory weight loss mechanisms, amount of time a patient spends thinking about food, weight, or their body, prior treatment, psychosocial impairments, family history, and presence of other psychiatric or medical conditions. Additional information to be obtained includes a physical examination, a detailed review of symptoms, collateral information, and laboratory testing (American Psychiatric Association, 2023b).

Treatment Plan and Level of Care Treatment planning and level of care determination may take several appointments (American Psychiatric Association, 2023a). Multiple levels of

care exist for the treatment of EDs. These include outpatient, intensive outpatient, partial hospitalization, residential, and inpatient. Multiple factors contribute to what level of care a patient may need, including the severity of weight loss, frequency of behaviors, level of insight and judgment, support, and medical instability (American Psychiatric Association, 2023a). This DNP QI project sought to enhance evidence-based practices using the SCOFF-BED (see Appendix A) to help identify patients at risk for EDs, better assess them, and refer them to the appropriate levels of care.

Review of the Literature

This literature search aimed to show the current knowledge regarding ED identification, assessment, and treatment. Due to the lack of research surrounding the use of the SCOFF in outpatient psychiatric settings, this search included research studies conducted in primary care settings as well as outpatient psychiatric clinics. A comprehensive review of the literature was conducted from the years 1999 to 2023 using combinations of the following search terms: "eating disorders", "screening tools", "SCOFF", "outpatient", "reliability", "validity", “barriers”, “cost”, and “early intervention”. Databases searched include Cochrane Library, CINAHL Complete, PubMed, Psych Info, and Google Scholar. Articles that were not peer-reviewed or included a version of the SCOFF in a language other than English were excluded. Inclusion criteria consisted of articles in English or translations into English and higher levels of evidence such as systematic reviews or meta-analyses and clinical practice guidelines. Lower levels of evidence articles were avoided unless no higher levels of evidence were available.

PRISMA

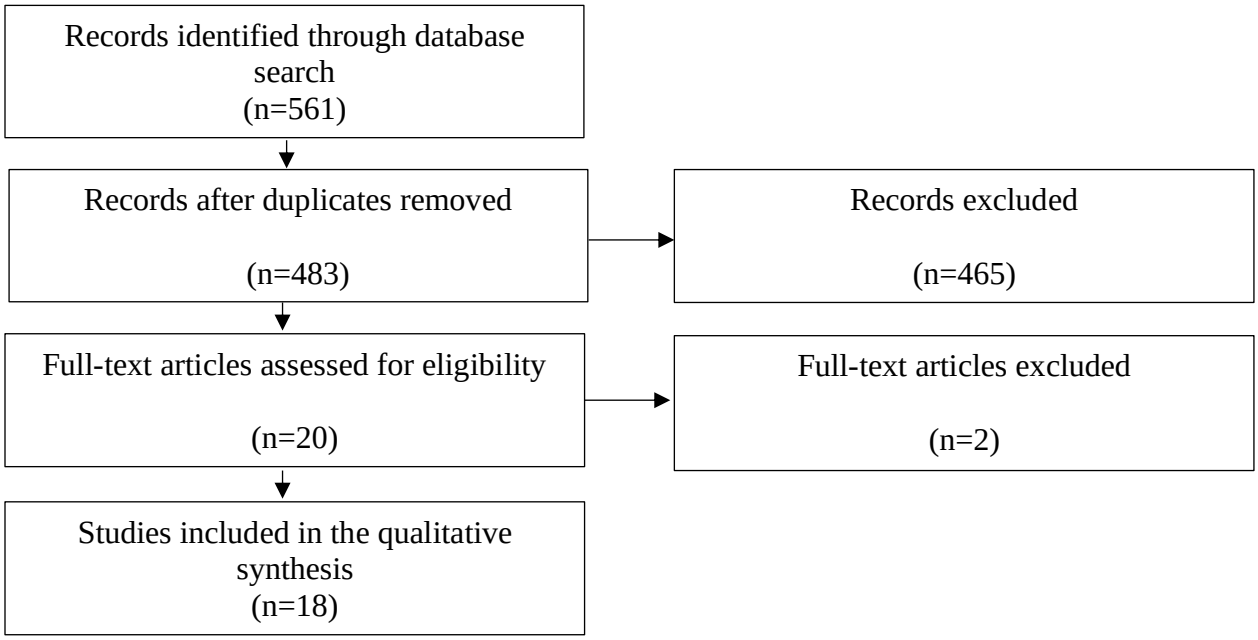

Figure 2. Prisma Table

Characteristics of Studies

Overall, 18 studies were reviewed and included in this literature review. Seven studies were systematic reviews/meta-analyses (Ali et al., 2017; Allen et al., 2023; Austin et al., 2020; Botella et al., 2013; Johns et al., 2019; Kutz et al., 2020; Peat & Feltner, 2022; Streatfeild et al., 2021). These studies included articles from other countries, spanning both genders, and samples from various settings to aid in validating the SCOFF, provide insight on barriers, and costs associated with EDs. One scoping review discussed the importance of early detection for EDs (Kalindjian et al., 2022). One practice guideline was used from the American Psychiatric Association (2023a) with recent updates based on current literature and a review from the US Preventative Task Force (Feltner et al., 2022). Five cohort studies were included: two with diverse samples validating the SCOFF, one with all female participants aiding in the validation

of the SCOFF, and one looking at ED outcomes in primary care settings (Ambwani et al., 2020; Morgan et al., 1999; Perry et al., 2002; Solmi et al., 2015; van Son et al., 2009). A comparative study assessed the validity of the SCOFF against clinical interviewing to see if patients were accurately identified by the screening tool (Luck et al., 2002). A qualitative study by Reid et al. 2010 encompassed provider experiences and barriers working with patients with EDs. Finally, one quality improvement project was included as there was limited data on adolescents using the SCOFF (Read & McComiskey, 2021).

Several themes emerged during the review of the literature. The first two involved the identification of patients with EDs. These included the importance of early detection and the use of the SCOFF. The final theme consisted of many barriers to assessing and treating patients with EDs.

Synthesis of the Literature

Importance of Early Detection

Early detection of EDs is essential to improve overall morbidity, mortality, prognosis, and prevent the development of chronic medical or psychiatric complications. EDs emerge in the adolescent age group and peak in emerging adulthood (Allen et al., 2023). Adolescence is a time when the body is undergoing significant changes, which, with the combination of an ED, can potentially produce long-lasting consequences. Brain development can be impacted and cause recovery later down the road to be more difficult. Allen et al. (2023), Ambwani et al. (2022), and Austin et al. (2020) state that the longer patients go without treatment is directly related to poorer outcomes. Research shows that outcomes are best when an ED is identified during the first three years of the illness (Allen et al., 2023; Ambwani et al., 2020; Austin et al., 2020). Additionally, patients diagnosed under the age of 19 are four

times more likely to recover from anorexia nervosa (AN) and eight times for bulimia nervosa (BN) (Kalindjian et al., 2022; van Son et al., 2009).

The SCOFF The American Psychiatric Association (2023a) has recommended the SCOFF as the first-line screening tool for all initial psychiatric evaluations to aid in the early identification of eating disorders (EDs). It is one of the most studied and used out of all the ED screening tools available (American Psychiatric Association, 2023a). However, there are still a limited number of studies assessing its reliability, and those that do are often the SCOFF translated into another language. Inter-rater reliability and internal consistency values were not found for the English version of the SCOFF. Despite this, multiple studies assessed the English version's validity (Kutz et al., 2020; Luck et al., 2002; Morgan et al., 1999; Read & McComiskey, 2021).

At its inception, the SCOFF was 100% accurate at identifying AN and BN compared to a control group; however, it exhibited less specificity when identifying patients who were not at risk for an ED. Specificity and sensitivity were 87.5% and 100%, respectively (Morgan et al., 1999). Studies conducted since have shown varying specificity and sensitivity results depending on the characteristics of the population studied. Populations consisting primarily of females with AN and BN continue to show the highest rates of sensitivity and specificity (American Psychiatric Association, 2023a; Kutz et al., 2020; Luck et al., 2002). The SCOFF was accurate at predicting adolescents with eating disorders at rates similar to the national average, although comprehensive research on age specifically is limited (Read & McComiskey, 2021). Predictive values decrease when populations are more diverse, including factors such as gender, race, BMI, and other eating disorder diagnoses, namely binge eating disorder (BED), other specified feeding

or eating disorder (OSFED), unspecified feeding or eating disorder (UFED) and avoidant restrictive food intake disorder (ARFID) (American Psychiatric Association, 2023a). Diverse populations tend to have higher specificity at 93.5% but lower sensitivity at 53.7% (Solmi et al., 2015). Overall, pooled data from meta-analyses shows a specificity and sensitivity ranging from 83-93% and 80-86%, respectively (Botella et al., 2013; Kutz et al., 2020).

While there is limited evidence for the overall reliability of the SCOFF, Perry et al. (2002) provide the latest data on oral versus written presentations. Consistency of the SCOFF question responses all had kappa coefficients greater than or equal to 0.8, indicating good reliability with both types of presentations (Perry et al., 2002). Written delivery had higher scores than oral delivery of the tool, possibly indicating that patients feel more comfortable disclosing information in the written format (Perry et al., 2002).

Areas of Limited Research Evaluation of the SCOFF lacks in several aspects. First, no research studies assess the screening tool's benefits and harms. Research lacks both in terms of patients individually and the effects of screening everyone in an office (Feltner et al., 2022). The benefits may not be as great with the decreased sensitivity, especially in areas with diverse populations (Solmi et al., 2015). Patients who screen negative and genuinely do have an ED could experience harm due to a lack of proper treatment. False positive results could potentially harm the patient if providers do not accurately assess the patient after a positive screen. Referrals sent could cost the patient and health care system time and money. Additionally, patients can receive the label and stigma associated with having an ED even though they do not have the disorder (Feltner et al., 2022).

Secondly, there are currently only three studies looking at the validity of the SCOFF when used with the adult male population. Research studies often fail to provide characteristics of the patients in their sample or include diverse samples, making it challenging to assess factors such as gender, race, and BMI (Kutz et al., 2020). Additionally, diagnoses such as other OSFED, UFED, and ARFID have not been included in the research when trying to understand the reliability and validity of the SCOFF (Kutz et al., 2020). While evidence shows that the screening tool can accurately identify AN and BN, no research has assessed its use with other diagnoses. As of February of this year, the American Psychiatric Association added a 6th question to the SCOFF to assess for BED; however, no studies exist researching the SCOFF with the BED question (American Psychiatric Association, 2023a).

Barriers to Treatment Throughout the literature search, several barriers were identified that can get in the way of the early detection, assessment, and treatment of EDs. Barriers were prevalent from both the patients' and the providers' perspectives. Additional barriers come from systemic issues.

Patient Barriers Ali et al. (2017) found several themes that prevented the individual from seeking treatment for their ED. These include stigma and shame, perception of the level of sickness, cost, fear of change or losing control, reluctance towards treatment, lack of family support, and lack of knowledge regarding resources (Ali et al., 2017). About one-third of patients seek out treatment for their ED. However, 50%-63.2% of patients who have an ED have sought treatment for another psychiatric disorder. This further increases the need to properly screen and assess these patients to identify the ED during these visits (National Institute of Mental Health, n.d.).

Provider Barriers Stigma and bias exist when it comes to patients with EDs. Often seen as challenging to treat, providers are reluctant to screen (Johns et al., 2019; Reid et al., 2010). Providers feel that negative attitudes stem from a lack of knowledge of identifying, assessing, and treating ED patients. Those with some knowledge who have attempted to refer to specialized care after assessing have found treatment options inaccessible for the patient. This is due to a high demand for services and insufficient specialized options (Johns et al., 2019; Reid et al., 2010).

Systemic Barriers At both the state level and national level, population health monitoring for eating disorders is dismal. Utah had no monitoring other than for high school-aged adolescents (Utah Department of Health & Human Services, n.d.). Minimal data exist on the prevalence of EDs and often varies from study to study (Streatfeild et al., 2021). Research is highly underfunded, with a total spent each year ranging from $0.73-$1 per person affected compared to $59-$109 for autism and $69-$87 for schizophrenia. Health insurance coverage gaps place more of an economic burden on patients and families, preventing patients from getting the treatment they need or even seeking out treatment in the first place (Streatfeild et al., 2021). Ward et al. (2019) simulated the increase in insurance coverage for patients with EDs and estimated that it could prevent 70.5 deaths per 100,000 people.

Discussion

Many barriers exist when treating EDs from the individual, provider, and systemic levels (Johns et al., 2019; Streatfeild et al., 2021). Barriers prevent the early detection of eating disorders, improving the overall morbidity and mortality of the patient (Allen et al., 2023). One way to increase the identification of EDs in patients is to use a screening tool, specifically the

SCOFF (American Psychiatric Association, 2023a). The SCOFF is one tool that has acceptable validity for female patients diagnosed with AN and BN, as evidenced by its sensitivity and specificity values (American Psychiatric Association, 2023a; Kutz et al., 2020; Luck et al., 2002). More research is needed to ensure the validity of the tool in more diverse communities and patients with other types of eating disorder diagnoses (Solmi et al., 2015). Users can implement the screening tool in written and oral presentations; however, the written version may provide better patient disclosure opportunities (Perry et al., 2002). After identifying patients at risk, it is recommended that providers further assess patients to determine the level of treatment required. (American Psychiatric Association, 2023a).

Conclusion

Eating disorders are a set of mental health diagnoses that are poorly recognized but can cause significant physiological and psychological complications. The impact of EDs reaches all ages, races, and identities. Costs associated with EDs were more significant than those of Parkinson's Disease and schizophrenia. Despite the impact, patients with EDs are going undiagnosed, decreasing their overall mortality, morbidity, and prognosis. Based on the review of the literature surrounding early detection, use of the SCOFF screening tool, and barriers to treatment, and in conjunction with the American Psychiatric Association's (2023a) most recent practice guideline update, the author of the DNP QI project sought to enhance evidence-based practices in an outpatient clinic using the SCOFF+BED.

CHAPTER TWO

QUALITY IMPROVEMENT PROPOSAL

Introduction and Problem

Introduction

Eating disorders (EDs) broadly impact the world, with point prevalence's ranging from 2.2%-4.6% in the U.S., Asia, and Europe, with the U.S. coming in first at 4.6% (Galmiche et al., 2019). In the state of Utah, there is minimal data on the prevalence of EDs. The Utah Department of Health and Human Services found that in Utah public high schools, 4% of female and 1.4% of male students were underweight with ED behaviors (Utah Department of Health & Human Services, n.d.). Significant complications of EDs can include suicide and malnutrition. Patients diagnosed with anorexia nervosa (AN) are 18 times more likely to die by suicide and seven times more likely if diagnosed with bulimia nervosa (BN). Malnutrition can lead to electrolyte imbalances that can cause fatal arrhythmias in both AN and BN (Guidiani, 2019).

Based on the literature reviewed, the prevalence of EDs, and the significant complications that can arise, the DNP project will utilize the SCOFF+ binge eating disorder (BED) screening tool during all initial psychiatric evaluations to help improve the early identification and treatment of EDs. The providers will continue to follow the American Psychiatric Association guidelines (2023a) by further assessing patients and referring them to specialized care based on criteria met. The SCOFF screening tool recommended by the American Psychiatric Association in the newest practice guideline is proven valid with an overall sensitivity of 0.86 and a specificity of 0.83 (American Psychiatric Association, 2023a; Kutz et

al., 2020). It is important to note that the SCOFF, including the BED question, has not been formally evaluated for reliability and validity. Using the SCOFF to identify eating disorders is a necessary step to take, as early detection of EDs can improve overall morbidity, mortality, prognosis, and prevent the development of medical and psychological complications (Allen et al., 2023).

In addition to implementing the screening tool, an educational presentation on identifying, assessing, and treating EDs was provided to the practice's psychiatric mental health nurse practitioners (PMHNPs). The American Psychiatric Association (2023a) recommends screening patients but also conducting an assessment following a positive SCOFF+BED result. Assessing patients includes the initial evaluation, obtaining lab work, an electrocardiogram, and treating or referring the patient based on the level of care needed. An update to the guidelines occurred this year and helped aid in the early detection and treatment of EDs (American Psychiatric Association, 2023a).

Problem Statement

The problem is inadequate screening for EDs, and therefore, appropriate diagnoses have gone undetected for years (Allen et al., 2023). Often, patients lack insight into the significance of their disorder. Moreover, patients may not seek treatment for their ED, further increasing the need for screening (American Psychiatric Association, 2023a). Based on recommendations from the literature, the SCOFF screening tool was used for the DNP QI project (American Psychiatric Association, 2023a; Kutz et al., 2020; Morgan et al., 1999). Researchers developed the SCOFF to be a short five-question screening tool using questions addressing the core diagnostic standards of AN and BN (Morgan et al., 1999). Since its development, the American Psychiatric

Association has added a BED question (American Psychiatric Association, 2023a). By implementing a screening tool, such as the SCOFF, and educating the PMHNPs, fewer patients will go undetected, and more patients will receive the treatment at the right level of care.

Organizational Microsystem Assessment

Setting The setting of this DNP project implementation is an outpatient psychiatric clinic privately owned by a psychiatric mental health nurse practitioner (PMHNP). Eight PMHNPs practice in the clinic and provide care to 3,096 individual patients. The PMHNPs primarily provide medication management and refer to their in-house therapist or an outside therapist for individualized therapy sessions for patients. In addition to traditional treatments for mental health disorders, the practice offers Spravato™ treatments and transcranial magnetic stimulation. Spravato™ is a nasal spray form of ketamine used to treat treatment-resistant depression (Best et al., 2019). Providers also have access to transcranial magnetic stimulation in conjunction with or as a stand-alone treatment, which uses different frequencies of electrical current to either inhibit or excite areas of the cortex in the brain (Best et al., 2019). Three nurses and a medical assistant support the nurse practitioners and provide case management to Medicaid patients. The medical assistant ships out labs, obtains vitals when the nurse cannot, and conducts drug screens.

Needs Assessment To assess the need for improvement in the identification, assessment, and treatment of EDs in the clinic, a stakeholder meeting was held to review the providers' current treatment protocols. All eight providers stated they asked some questions related to disordered eating in their initial assessment but are not currently using any screening tools, even with at-risk patients. An anonymous survey was also sent to identify the providers' confidence levels using ED screening tools, assessing patients for EDs, treating EDs, and referring patients

they identify as having an ED. Of the six providers who responded, 83.3% felt comfortable using an eating disorder tool even though they currently are not. Sixty six percent of providers felt fairly confident to very confident regarding assessing patients with EDs; however, 80% were not very confident or only somewhat confident at treating and referring patients. The providers also identified barriers they face when treating EDs, which included waitlists for specialists, insurance companies not covering treatment, lack of knowledge in treating EDs, lack of knowledge regarding when and where to refer patients, and patient hesitancy to disclose.

In addition to the survey, patient de-identified reports were run to identify the number of patients with each specific ED (Table 2). The providers diagnosed a total of 30 patients together. It indicates that 1% of the patients seen from October 2022 to October 2023 have an ED, which is lower than the overall prevalence in the United States of 4.6%. More females presented with an ED, which is consistent with the literature (National Institute of Mental Health, n.d.). There were four patients with an ED under 18, constituting only 0.1% of the total patients in the clinic. This statistic is significantly lower than the Utah findings that 5.4% of students were found to be underweight with eating disorders (Utah Department of Health & Human Services, n.d.).

Anorexia nervosa, restricting type F50.01	Anorexia nervosa, binge/purge type F50.02	Bulimia nervosa F50.2	Binge eating disorder F50.81	Other specified feeding or eating disorder F50.89	Unspecified feeding or eating disorder F50.9	Total Number of patients with EDs
0	1	2	13	2	12	30

Table 2. Prevalence of Eating Disorders in an Outpatient Clinic

Quality Improvement Model

The Iowa Model-Revised

The DNP QI project will utilize the Iowa Model-Revised as the framework for implementing an evidence-based practice screening tool in an outpatient clinic (Iowa Model Collaborative, 2017). Researchers developed The Iowa Model-Revised as a step-by-step guide for applying evidence-based processes in various settings to help improve healthcare outcomes. The Iowa Model is a flow chart comprising seven key features and three decision points. The key features include identifying triggering issues and opportunities, statement of the purpose or question, forming a team, assembling, appraising, synthesizing evidence, designing and piloting the practice change, integrating and sustaining the practice change, and disseminating the results. The three decision points surround the priority of the topic, sufficient evidence, and whether the change is appropriate for adoption in practice (Iowa Model Collaborative, 2017).

Identify Triggering Issues and Opportunities The lack of early identification of EDs is a clinically identified issue evident in the research. Outcomes are best when EDs are detected within the first three years of onset (Allen et al., 2023; Ambwani et al., 2020; Austin et al., 2020). Austin et al. (2021) found the simple average for the duration of untreated BN to be 53.0 months. Anorexia nervosa, binge eating disorder (BED), and other specified feeding or eating disorder (OSFED) were as follows: 29.9, 67.4, and 43.8 months, respectively. The tangible economic cost of EDs is $64.7 billion a year in the United States, which is higher than that of Parkinson's Disease (Streatfeild et al., 2021).

State the Purpose This project aims to implement the SCOFF+BED screening tool to improve the early identification of eating disorders in a psychiatric outpatient clinic. It is to

increase the number of eating disorder patients who are getting treatment for their eating disorders and referred to specialty levels of care when deemed necessary.

Decision Point 1: Is the topic a priority? The topic is a priority as of currently, the outpatient practice is not using any screening tool to identify eating disorders. The prevalence of eating disorders in the practice is lower than that of the national average, pointing toward a population of patients who potentially are not receiving an adequate diagnosis due to a lack of effective screening. In general, the topic is a priority due to the morbidity, mortality, and overall costs associated with EDs in the United States.

Form a Team A team has been formed to include the DNP student, owner of the practice, eight PHMNPs, and a human resources staff member to aid in the data collection and overall implementation of the project.

Assemble, Appraise, and Synthesize Body of Evidence Chapter one of this paper focused on conducting a literature review, appraising articles for overall quality, and synthesizing the literature into four main themes. These themes include the importance of early identification, reliability and validity of the SCOFF, areas of limited research, and barriers to treatment. Eighteen articles were assessed: seven meta-analyses/systematic reviews (Ali et al., 2017; Allen et al., 2023; Austin et al., 2020; Botella et al., 2013; Johns et al., 2019; Kutz et al., 2020; Peat & Feltner, 2022; Streatfeild et al., 2021), one scoping review (Kalindjian et al., 2022), one practice guideline (American Psychiatric Association, 2023a), a review from the U.S. Preventative Task Force (Feltner et al., 2022), five cohort studies (Ambwani et al., 2020; Morgan et al., 1999; Perry et al., 2002; Solmi et al., 2015; van Son et al., 2009), a comparative study (Luck et al., 2002), a

qualitative study (Reid et al., 2010), and one quality improvement project (Read & McComiskey, 2021).

Decision Point 2: Is there sufficient evidence? There is sufficient evidence about why screening of EDs and the tools used in clinical practice are essential. The American Psychiatric Association (2023a) recommends using the SCOFF+BED screening tool during all initial psychiatric evaluations, followed by an assessment, and treatment, including referrals to specialty care if warranted.

Design and Pilot the Practice Change Before creating a plan, baseline data were collected. Data collected included a survey of the providers' confidence levels surrounding the identification, assessment, and treatment of EDs and what barriers they currently face. Thirty patients were identified as having an eating disorder in the clinic, which was 1% of the total patient count for the past year. Stakeholders met and identified a lack of screening that was occurring in terms of EDs. A plan was created using evidence-based practice guidelines to implement the SCOFF+BED screening tool during all initial evaluations for six weeks. Providers will be checked in with every week to promote the use of the tool and ensure its use with all initial intakes. Following the six weeks, post-pilot data will be collected to see if more patients were identified as having an ED and if providers were more likely to send a referral.

Decision Point 3: Is change appropriate for the practice? Once post-pilot data is collected, an analysis of the data will be performed to see if the screening tool was effective. If so, the change can be a part of the intake process for all future appointments. If there were barriers to its use or data does not show a positive trend, following the Iowa Model, alternatives will be considered. A process change may be needed to meet providers' or patients' needs better.

Integrate and Sustain the Practice Change To promote a practice change, data will be shared with the stakeholders of the outpatient clinic to help solidify on top of the American Psychiatric Association Guidelines (2023a) the need for the change.

Disseminate Results The DNP QI project will disseminate the findings and include recommendations for future practice based on evidence-based findings.

Aims & Purpose

Purpose

The purpose of this QI initiative is to increase the early detection of EDs, decreasing the overall mortality, morbidity, and costs associated with having or caring for someone with an ED. It is to establish evidence-based practices in an outpatient clinic based on the most recent update to the ED guidelines (American Psychiatric Association, 2023a). Additionally, the project seeks to build provider confidence in identifying, assessing, and treating EDs, including improving knowledge surrounding resources in Utah.

Project Aims and Goals

Aim 1 To provide educational training on the evidence-based guidelines for treating EDs for all project site stakeholders.

Short-Term Goal 1 Eighty-five percent of the stakeholders will receive training on the evidence-based guidelines for treating EDs before implementing the QI project.

Long-Term Goal 1 Eighty-five percent of the stakeholders will rate their confidence in screening, assessing, treating, and referring patients as fairly or very confident.

Aim 2 To implement the SCOFF+BED screening tool during all initial psychiatric intake appointments.

Intermediate Goal 1 Seventy-five percent of initial psychiatric intakes will have completed the SCOFF+BED screening tool.

Aim 3 Providers will assess patients with positive SCOFF+BED screeners.

Intermediate Goal 2 Seventy-five percent of patients will be further assessed after a positive SCOFF+BED result.

Methods

Interventions and Implementation

Implementation Summary The DNP QI project will implement the SCOFF+BED screening tool at an outpatient psychiatric clinic for all patients at their initial psychiatric visit. The project will begin with a presentation to update the stakeholders on the evidence-based guidelines for treating EDs. The PMHNPs will then conduct screenings during all initial psychiatric appointments by asking or providing the patients with the six SCOFF+BED questions. Screenings will occur for six weeks.

Implementation Full Plan

Proposed Practice Change The DNP QI project seeks to change the current protocol for identifying EDs in an outpatient psychiatric setting. The project will begin with a PowerPoint presentation on the most recently updated treatment guidelines published in February of this year regarding the identification, assessment, and treatment of EDs (American Psychiatric Association, 2023a). The purpose of the educational presentation is to build provider knowledge

and confidence, as in the initial needs assessment, a majority of the providers presented with low confidence levels. This presentation will be held during one of the weekly stakeholder meetings on Thursdays. Following this presentation, providers will begin implementing the SCOFF+BED screening tool as recommended by the American Psychiatric Association (American Psychiatric Association, 2023a) (Appendix A). Providers will follow the new protocol by asking the questions on the screening tool to the patient during the initial 60-minute psychiatric evaluation. If a patient has a positive result, the provider will further assess the patient, providing treatment and referring when appropriate (Appendix C).

Project Timeline The total time needed for the DNP QI project will be eight weeks (Appendix D). Week one will consist of the educational presentation. During all initial appointments, providers will implement the SCOFF+BED screening tool in weeks two through six. Data collection, analysis, and interpretation will occur during week seven of the project.

Surveys During the needs assessment portion of the DNP QI project, a survey was sent out to all of the PMHNPs to assess their confidence level in identifying, assessing, treating, and referring EDs (Appendix E). A post-survey will be conducted during week six following the educational presentation and implementation of the SCOFF+BED screening tool to compare to the pre-survey findings (Appendix F). Both surveys were created by the project coordinator using the Likert scale. During the literature review, no viable surveys were found to fit the project's purpose; therefore, two had to be created.

Barriers The main barrier to implementation will include whether or not the provider remembers to use the screening tool during the initial intake with the patient and further assess the patient if the result is positive. The SCOFF+BED screening tools will be collected each

Wednesday and compared to the number of intakes to ensure providers employ the tool and further assess the patient. Additionally, weekly reminders can be sent out via Microsoft Teams. If providers have difficulty remembering to use the tool, stakeholders discussed having the front desk include the tool in the initial intake paperwork that patients fill out upon arrival. However, providers would still be responsible for reviewing the tool and following up with an assessment if positive.

Evaluation and Analysis

Data Collection and Budget The SCOFF+BED screeners will be collected each Wednesday by the project coordinator, and the number of positive and negatives input into the project data collection spreadsheet. Additional information included in the table will consist of demographics such as age and gender, the eating disorder diagnosis given, and the outcome of the visit, which will be marked at the bottom of the screening tool (Appendix G). Outcomes can include no treatment given, medications prescribed, or referrals sent to higher levels of care. Data from the post-survey will be collected during Week six and input into the same data collection spreadsheet.

Printing off the SCOFF+BED screening tool is the only cost associated with this project. The total budget is $10, with each copy of the screening tool amounting to 0.14 cents. This budget provides room for additional copies, if necessary, over the amount the project is estimated to need. The clinic has consented to absorb the costs of this project.

SMART Goals

<table>
<tr><td colspan="3">SMART Short-Term Goal #1- Eighty-five percent of the stakeholders will receive training on the evidence-based guidelines for treating EDs before implementing the QI project.</td></tr>
<tr><td colspan="3">Description of strategies to be utilized to accomplish the goal, including any resources. (Can be in outline or bullet list form.)
• A team of stakeholders and the project coordinator will meet during a Thursday provider meeting.
• A PowerPoint presentation will be provided to the stakeholders by the project coordinator.
o Will need approval from the lead nurse practitioner to be able to use the provider meeting time to present.</td></tr>
<tr><td>Data to be collected:</td><td>Method of collection and who is responsible:</td><td>Planned data analysis:</td></tr>
<tr><td>• Confidence levels of the PMHNPs in their ability to identify, assess, and treat patients with EDs.</td><td>• Pre- and post-surveys were collected by the project coordinator.</td><td>• Percentage of providers who rated fairly or very confident.</td></tr>
<tr><td colspan="3">SMART Intermediate Goal #1- Seventy-five percent of initial psychiatric intakes will have completed the SCOFF+BED screening tool.</td></tr>
<tr><td colspan="3">Description of strategies to be utilized to accomplish the goal, including any resources. (Can be in outline or bullet list form.
• Providers will be given copies of the SCOFF+BED screening tool to keep on their desks to use during initial intake appointments.
o The project coordinator will ensure providers have enough copies of the screening tool each week.
o Funding for the paper and printing services for the screening tool is in the current operational budget. No additional funds are needed.
• Providers will scan the screening tool into the EHR following each visit.
• Weekly collection of the tool by the project coordinator will be utilized to ensure providers are using the tool.</td></tr>
<tr><td>Data to be collected:</td><td>Method of collection and who is responsible:</td><td>Planned data analysis:</td></tr>
<tr><td>• Number of total psychiatric intake appointments
• Number of SCOFF+BED screening tools used</td><td>• The project coordinator will collect the screening tools weekly on Wednesdays.</td><td>• Percentage of SCOFF+BED screening tools used</td></tr>
<tr><td colspan="3">SMART Intermediate Goal #2 Seventy-five percent of patients will be further assessed after a positive SCOFF result.</td></tr>
<tr><td colspan="3">Description of strategies to be utilized to accomplish the goal, including any resources. (Can be in outline or bullet list form.
• Following a positive screener, providers will assess the patient for an eating disorder and document findings in the EHR.</td></tr>
</table>

<table>
<tr><td colspan="3">• Providers will mark on the bottom of the screening tool what actions were taken, including a box for assessment.
• Project coordinator will review every week positive screening tools to see how often an assessment is taking place.</td></tr>
<tr><td>Data to be collected:</td><td>Method of collection and who is responsible:</td><td>Planned data analysis:</td></tr>
<tr><td>• Number of total positive patients
• Number of positive patients assessed</td><td>• Project coordinator will collect the screening tools weekly on Wednesdays.</td><td>• Percentage of times an assessment is being conducted on positively screened patients</td></tr>
<tr><td colspan="3">SMART Long-Term Goal #1- Eighty-five percent of the stakeholders will rate their confidence in screening, assessing, treating, and referring patients as fairly or very confident.</td></tr>
<tr><td colspan="3">Description of strategies to be utilized to accomplish the goal, including any resources. (Can be in outline or bullet list form.
• A team of stakeholders and the project coordinator will meet during a provider meeting on Thursday.
• A PowerPoint presentation will be provided to the stakeholders by the project coordinator.
o Will need approval from the lead nurse practitioner to be able to use the provider meeting time to present.
• During week six, providers will answer the post-survey questions to assess overall confidence following the presentation and use of the SCOFF+BED screening tool.</td></tr>
<tr><td>Data to be collected:</td><td>Method of collection and who is responsible:</td><td>Planned data analysis:</td></tr>
<tr><td>• Confidence levels of the providers regarding the identification, assessment, and treatment of EDs</td><td>• Project coordinator will send the anonymous post-survey out to the providers via Microsoft Teams during week 6</td><td>• Percentage of providers who rated fairly or very confident as compared to previous results.</td></tr>
</table>

Table 3. SMART Goals

Safety and Confidentiality No known risk for the patient or staff will occur during any steps of this DNP QI project. Regarding staff, the pre-survey and post-surveys are anonymous using Google Forms. The PMHNPs are not required to provide their information on each SCOFF+BED screening form they use, as it is not necessary to evaluate the new process. Additionally, the screening tool will be scanned into the chart by the providers, and the project coordinator will remove any patient identifying information from the form before collection

occurs on Wednesdays of each week. The only demographical information on the form is the patient's age and gender. The PMHNPs will collect all data.

All de-identified data will be kept in an Excel spreadsheet on a project site computer. While at the project site, the project coordinator is the only one with access to the password-protected computer. Negative and positive SCOFF+BED screeners were stored in file folders marked as "confidential, DNP student access only" and kept in a locked filing cabinet in the practice owner's office. Keys to the cabinet and the office are only available to the practice owner. Once all data is collected and analysis of the results is complete, all SCOFF+BED screening tools will be shredded. De-identified data will be deleted from the computer at the practice per Montana State University's Institutional Review Board's policies. The project coordinator will maintain HIPPA compliance with any patient information observed during the project. All PMHNPs voluntarily agreed to participate in the data collection process of this DNP project.

Institutional Review Board The outpatient psychiatric office does not have its own internal institutional review board (IRB). The project coordinator will receive IRB approval from Montana State University before implementing the DNP QI project, which will be sufficient given that the site does not have one. The project site will receive a copy of the IRB approval. Since the DNP project is adding a screening tool to a process that already utilizes screening tools to aid in identifying other psychiatric illnesses, the patient's consent to treatment is consistent with the SCOFF+BED screening tool administration. Other screening tools used in the initial psychiatric intake process include the Generalized Anxiety Disorder-7 and the Patient Health Questionnaire-9.

CHAPTER THREE

QUALITY IMPROVEMENT MANUSCRIPT

Contribution of Authors and Co-Authors

Manuscript in Chapter 3

Author: Jordyn Rollins BSN, RN

Contributions: analysis of the clinical problem, review of the literature, methods, implementation, data analysis

Co-Author: Carrie Miller PhD, RN, CNE, CHSE, IBCLC, FAAN

Contributions: editorial work

Co-Author: Molly Secor PhD, RN

Contributions: editorial work

Manuscript Information

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Journal of the American Association of Nurse Practitioners

Status of Manuscript:

☒ Prepared for submission to a peer-reviewed journal
☐ Officially submitted to a peer-reviewed journal
☐ Accepted by a peer-reviewed journal
☐ Published in a peer-reviewed journal

Abstract

Eating disorders are a set of diagnoses that significantly impact individuals, families, and health systems. Anorexia nervosa, one type of eating disorder, has the highest mortality rate of the psychiatric diseases, second only to opioid use disorder. Furthermore, eating disorders are also significant contributors to suicidal ideation and death by suicide. Currently, minimal, or inconsistent screening of eating disorders is occurring despite the extant literature describing potentially severe medical and psychiatric complications. This Doctor of Nursing Practice (DNP) quality improvement (QI) project aimed to implement the SCOFF+ Binge Eating Disorder (SCOFF+BED) screening tool during all initial evaluation appointments at an outpatient psychiatric practice in the western region of the United States. The following procedures took place: (1) A pre-survey assessing provider confidence was given; (2) Stakeholders were educated on the most recent eating disorder practice guidelines; (3) Providers administered the SCOFF+BED during all initial psychiatric evaluations; (4) Providers further assessed, treated, and referred patients with positive scores based on their discretion; (5) A post-survey assessing provider confidence was given. Two out of the four aims were achieved. First, one hundred percent of patients were further assessed after a positive result. Second, seven out of eight providers received the educational training on eating disorders. The overall purpose of the project was met as the use of the SCOFF+BED increased the detection of eating disorders and paralleled the overall prevalence of eating disorders in the United States. Additionally, provider confidence increased in screening, assessing, and referring patients with eating disorders in the clinic.

Introduction

Eating disorders (EDs) are some of the most poorly recognized mental health disorders but come with significant psychiatric and medical complications (American Psychiatric Association, 2023a; Lakeman & McIntosh, 2018). According to the American Psychiatric Association (2023a), anorexia nervosa has the highest mortality rate of all psychiatric diseases, second to opioid use disorder. Additionally, suicide rates for patients with bulimia and anorexia nervosa are significantly higher than the general public (Mandelli et al., 2019). In the United States, total tangible costs for eating disorders were estimated to be $64.7 billion, which surpassed both Parkinson's disease and schizophrenia (Streatfeild et al., 2021). The United States has the highest point prevalence in the world at 4.6% (Galmiche et al., 2019). Furthermore, the LGBTQ+ community is more likely to develop an ED, with more than double the lifetime prevalence for anorexia and bulimia nervosa, 1.93% and 3.60%, respectively. While there is little evidence surrounding EDs in the state of Utah, the Utah Department of Health and Human Services found that 5.4% of public high school students were underweight with ED behaviors (Utah Department of Health & Human Services, n.d.). To improve the detection of ED in the United States, the American Psychiatric Association (2023a) recommends screening patients during all initial psychiatric evaluations using the SCOFF+ Binge Eating Disorder screening tool. However, upon review of the literature, several barriers were noted that prevent patients with eating disorders from being identified early.

Review of the Literature

Many barriers exist that prevent the early detection of EDs. Patient barriers include stigma and shame, perception of the level of sickness, cost, fear of change, reluctance towards treatment, lack of family support, and lack of knowledge regarding resources (Ali et al., 2017). Providers often are reluctant to screen as EDs are stigmatized as being difficult to treat, preventing the early detection of EDs. Systemically, population monitoring is lacking to gain a firm prevalence number. Research funding is limited at $0.73-$1 for every affected person as compared to $59-$109 for autism and $69-$87 for schizophrenia, even though eating disorders were estimated to cost the United States $64.7 billion in tangible economic costs (Streatfeild et al., 2021). Costs for autism are expected to be around $425 billion by 2025 (Schmid et al., 2020). Schizophrenia is currently costing the United States $343.2 billion as of 2019 (Kadakia et al., 2022).

Allen et al. (2023), Ambwani et al. (2020), and Austin et al. (2020) state outcomes are best when an ED is identified during the first three years of the illness. Furthermore, the longer a patient goes undiagnosed, the poorer the outcomes. According to recently updated treatment guidelines for eating disorders by the American Psychiatric Association (2023a), the SCOFF+ Binge eating disorder (BED) screening tool should be used during all initial psychiatric evaluations to aid in the early identification of this set of disorders. The SCOFF is one of the most studied and utilized ED detection tools (American Psychiatric Association, 2023a). It has high rates of sensitivity and specificity for both anorexia and bulimia nervosa in all-female populations (American Psychiatric Association, 2023a; Kutz et al., 2020; Luck et al., 2002). Sensitivity and specificity decrease when patient populations are more diverse (American

Psychiatric Association, 2023a). Overall, pooled data from meta-analyses shows, specificity and sensitivity ranging from 83-93% and 80-86%, respectively (Botella et al., 2013; Kutz et al., 2020). Using the SCOFF+BED during all initial intakes is one way to help detect eating disorders early, reducing barriers to treatment, and improving the overall morbidity and mortality of patients.

Conceptual Framework

The Iowa Model-Revised was chosen for this project (Iowa Model Collaborative, 2017). This framework aided in the identification of the priority issue of EDs needing to be better recognized. After assembling, appraising, and synthesizing the literature surrounding EDs, a team of 8 nurse practitioners plus one human resources staff member was formed at the outpatient clinical site. Sufficient evidence, including a recent clinical practice guideline change on how EDs should be detected during psychiatric initial evaluations, was obtained. After discussion with the team, a quality improvement project was designed and piloted to improve, through evidence-based practice, the identification of EDs in the outpatient clinic. Results were disseminated to the medical practice at the end of the project to promote a practice change.

Aims and Purpose

The project aimed to increase the early detection of EDs in an outpatient clinic by establishing evidence-based practices. The primary aim was to implement the SCOFF+ BED screening tool during at least 75% of all initial psychiatric evaluations. The second aim was to have 75% of patients further assessed after a positive SCOFF+ BED result. The third aim was to provide educational training on the evidence-based guidelines for treating EDs to at least 85% of

project site stakeholders. The final aim was to have 85% of stakeholders rating their confidence level in screening, assessing, treating, and referring patients as somewhat or very confident on a four-point Likert scale. Aims were developed with the needs and nature of the practice in mind.

Methods

Context

The project was conducted in an outpatient psychiatric clinic in Utah. The office employed eight nurse practitioners. Support staff included three nurses, a medical assistant, two front desk staff, two patient schedulers, two prior authorization specialists, a pharmacy tech, and a phlebotomist. The clinic specialized in all age groups and treated patients with depressive disorders, anxiety disorders, obsessive-compulsive disorder, eating disorders, psychotic disorders, bipolar disorders, personality disorders, attention-deficit hyperactivity disorder, and behavioral disorders of childhood.

Interventions

Two interventions were conducted as part of the project. First, a presentation was given to the providers during a stakeholder meeting on the American Psychiatric Association's (2023a) most recent updated guidelines for treating EDs. The presentation consisted of a review of how to identify, assess, and treat patients with EDs, emphasizing using the SCOFF+ Binge eating disorder screening tool in the identification phase. The second intervention was implementing the SCOFF+ BED screening tool during all initial psychiatric evaluations within the clinic. Providers were given paper copies of the screening tool to use during their initial psychiatric evaluation visits. Providers were to ask each patient questions verbally using the tool.

Measures

The first measure explored the provider's confidence in screening, assessing, treating, and referring patients with EDs after the educational presentation. A presurvey was conducted to assess the confidence levels in each area. The pre-survey consisted of four Likert-style questions and a free form question regarding current barriers to screening, assessing, treating, and referring patients. At the end of the six-week intervention with the SCOFF+ BED screening tool, a post-survey was given to the providers to assess any improvement in the confidence levels. The post survey consisted of four Likert-style questions with three free-form questions to collect qualitative data about the providers' experiences with the screening tool. Both surveys consisted of providers rating their confidence levels in screening, assessing, treating, and referring patients with EDs as not very confident, somewhat confident, fairly confident, and very confident. The next measure involved the percentage of patients administered the screening tool. Finally, of the patients who had positive SCOFF+ BED question scores, how many were further assessed for the presence of an ED was measured.

Statistical Analysis

Pre- and post-survey scores were compared based on the number of providers who answered fairly or very confidently on the four-point Likert scales. Compliance with the administration of the screening tool was measured by the total percentage of patients screened out of the total number of initial evaluations that occurred at the clinic. The percentage of patients where the provider asked additional questions to further assess a patient for ED symptoms was analyzed using the total number of patients who were assessed out of the positively screened patients.

Ethical Considerations

The project was reviewed by Montana State University's Institutional Review Board where it was redeemed quality improvement. Data for the project was de-identified and kept in a secure Excel spreadsheet on a password-locked computer at the project site. No patient charts were reviewed for the project.

Results

Seventy-four percent of initial intakes received the SCOFF+BED screening tool. Out of 96 patients who were screened for EDs, 5% were identified as having an eating disorder. Of the 5% of patients identified as having an ED, 4% were diagnosed with binge eating disorder and 1% were diagnosed with unspecified feeding or eating disorder. See Figure 3. No cases of anorexia nervosa, bulimia nervosa, or other specified feeding or eating disorder were detected during the project. Of the 5% of patients identified as having an ED, 100% were further assessed following a positive SCOFF+BED result.

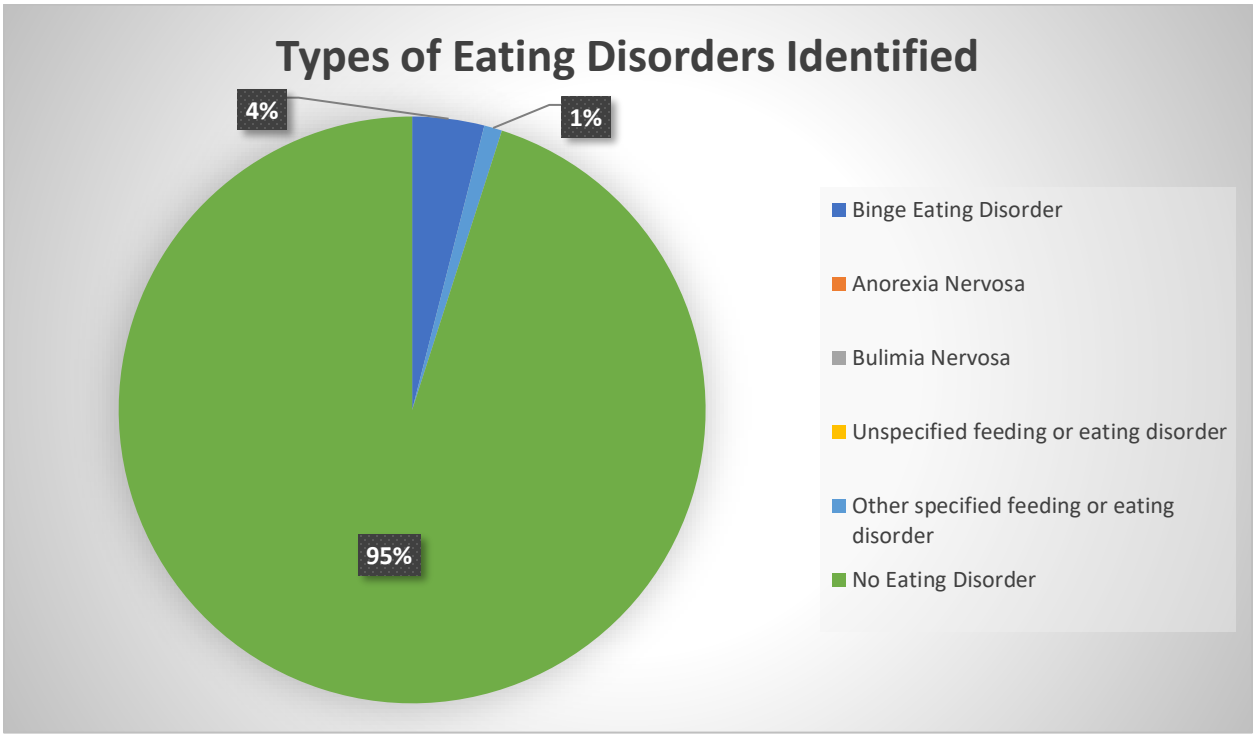

Figure 3. Types of Eating Disorders Identified

Seven of the eight providers received the educational presentation, which updated them on the most recent practice guidelines for treating eating disorders. None of the post-survey results for screening, assessing, treating, or referring patients with EDs surpassed 85% regarding ranking their confidence levels as fairly or very confident. Six providers took the pre-survey, and seven providers took the post-survey. Confidence levels increased for screening, assessing, and referring patients with an ED following the use of the screening tool and the educational provider survey. Knowledge of treating the patient decreased from pre-survey to post-survey. Pre- and post-survey scores can be found in Tables 4 and 5.

	Not at all Confident		Somewhat Confident		Fairly Confident		Very Confident	
	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-survey	Post-Survey
Screening for ED	0 (0%)	0 (0%)	1 (16.7%)	2 (28.6%)	5 (83.3%)	2 (28.6%)	0 (0%)	3 (42.9%)
Assessing for ED	0 (0%)	0 (0%)	2 (33.3%)	2 (28.6%)	3 (50%)	2 (28.6%)	1 (16.7%)	3 (42.9%)
Treating for ED	1 (16.7%)	4 (57.1%)	3 (50%)	3 (42.9%)	2 (33.3%)	0 (0%)	0 (0%)	0 (0%)
Referring for ED	1 (16.7%)	0 (0%)	4 (66.7%)	2 (28.6%	0 (0%)	3 (42.9%)	1 (16.7%)	2 (28.6%)

Table 4. Pre-survey Score

Discussion

The project's primary purpose was to increase the early detection of EDs in an outpatient clinic. Before implementing the project, ED prevalence at the outpatient clinic was 1%. Since the implementation of the project, the percentage of patients identified with an ED increased to 5%, which more closely represents the national average of 4.6% (Galmiche et al., 2019). The first aim of this project was to screen at least 75% of initial patients at intakes using the SCOFF+BED screening tool. This aim was mostly met as 74.4% of patients were screened. Before the implementation of the project, no screening tools for EDs were used in the practice. Stakeholders shared this was due to the low prevalence of eating disorders that they have seen in their practice and felt EDs could be identified by asking questions regarding appetite in their initial intakes.

The second aim was to have 75% of patients further assessed following a positive SCOFF+BED result. This aim was met as 100% of positive patients were further assessed regarding their ED. Providers were already assessing for eating disorders but expressed positive SCOFF+BED results, which prompted them to ask more questions to further assess for severity and the need to refer a patient to a higher level of care. However, based on the results, even though providers were previously assessing, only 1% of patients with EDs were identified before using the SCOFF+BED screening tool in their practice compared to 5% after implementation. This points out the significance of using the tool as the way providers assess patients and the questions they ask are not standardized across providers, whereas every patient was asked the same questions when the screening tool was used.

The last two aims involved the provider survey. First, 85% of providers were to receive the educational presentation. This goal was met as 87.5% of providers were in attendance. One

provider out of eight was missing as they were on maternity leave and could not attend the meeting. The final aim of the project was that following the educational presentation, 85% of providers would rate their confidence as fairly or very confident in screening, assessing, treating, and referring patients. None of the areas met the goal of 85%. However, more providers ranked their confidence level as very confident in screening patients, whereas before, no providers felt very confident. Regarding assessing and referring patients, the very confident column also increased, showing provider confidence levels improved. Continuing education and advocacy for more education in nurse practitioner programs is essential to help improve provider confidence in the healthcare delivery of those with EDs.

Treating patients with EDs was the only area where providers did not increase but decreased in confidence. The Dunning-Kruger effect is one possible explanation for the decrease. Before the educational presentation, providers with limited knowledge of treating eating disorders may have overestimated their abilities. Once the educational presentation was given and more information obtained, some providers may have realized they did not know as much as previously thought (Rahmani, 2020).

Most of the providers' feedback regarding the use of the screening tool was positive. The central theme was that it was a helpful reminder to ask specific questions to assess patients for EDs. The providers felt it helped start conversations and increased confidence in screening patients. Not only did it increase confidence in screening, but one provider felt it helped as a reminder to screen more thoroughly for EDs. Several of the providers stated they were asking questions already when assessing patients but did not inquire deeper once a patient answered a

question that would lead the provider to suspect an eating disorder may be present. This could be attributed to provider bias as discussed in the barriers section.

Providers often feel as though eating disorders are challenging to treat and may avoid further questions. Providers also may feel they do not have enough training and confidence to treat patients with EDs and, therefore, avoid further questioning. Providing health providers with additional training opportunities and using screening tools in their practice can further aid in identifying EDs.

Limitations

The main difficulty during the implementation of the project was getting the providers to use the tool. Several barriers existed that prevented the providers from using the tool. First, the providers currently do not administer any screening tool during the initial intake. All screening tools are embedded into the patient portal and must be filled out before the initial intake appointment begins. Providers felt that it was difficult and impeding workflow to administer it during the appointment. However, due to the nature of the project, it would have been difficult to know if a provider had reviewed the screening tool before seeing the patient and if it had been embedded into the EHR. Additionally, having it in the EHR would have caused the need to access patient charts, which this project avoided by having providers administer a paper version of the tool.

Another barrier that existed involved the questions on the questionnaire themselves. One provider felt that some of the questions would not be appropriate to ask a patient who is in a larger body. Specifically, the question states, "Do you believe yourself to be fat when others say you are too thin?". The provider felt it could be insensitive to patients with larger body mass

indexes due to the use of the term thin. However, this poses a level of bias as the provider would withhold a question based on how a patient looks and their judgment of the patient. Another provider also felt that the questionnaire was too long. They would like a shortened version of the tool that would prompt the use of the complete tool if the patient screened positive.

Several limitations also exist for the generalizability of the project. First, the sample size was relatively small. The tool did not pick up on any anorexia nervosa, bulimia nervosa, or other specified feeding or eating disorder in the sample of patients. No demographical information was obtained, so it is unknown how the tool was adequate based on demographics, which is a concern of the tool already in diverse populations. Confounding factors to consider include whether or not providers chose to paraphrase the questions or void specific questions they did not feel applied to the patient. Additionally, assessing the patient could look differently based on the provider they saw. The thoroughness of the assessment could have varied. Given the results and limitations, several recommendations could be made to improve not only the detection of eating disorders but also future replications of the project.

Recommendations

Based on the results of this DNP QI project and following recommendations presented forth by the American Psychiatric Association (2023a), it is suggested that all initial psychiatric intakes be screened for an ED using the SCOFF+BED screening tool. The tool is a quick way to assess whether a patient is at risk for having an ED and can easily be embedded into the initial intake paperwork or administered by the psychiatric provider. Additional replications of the project are needed where the QI project was conducted as the length of the project was only six weeks. More replications are also needed in other psychiatric outpatient offices to help with

generalizability of the results. More information is also required on how the screening tool could be used in inpatient settings.

Moreover, limited surveillance data exists in the United States and at the state level in Utah. When data is collected, more broad diagnoses, such as other specified feeding or eating disorder and unspecified feeding or eating disorder, are left out of the statistics. Properly obtaining and estimating ED statistics could bring heightened awareness to a set of disorders that contribute to significant costs both monetarily and in terms of overall morbidity. Bringing heightened awareness to EDs could also be a way to advocate for improved funding for research projects, which is very low, as discussed in the review of the literature. Using the SCOFF+BED screening tool, replicating the project, increasing surveillance at the national and state level, and improving research funding are all steps toward identifying patients early and improving healthcare delivery.

Conclusion

The QI project successfully identified patients with EDs that were similar to the national average. Identifying patients with EDs early decreases the duration of the disease, which in turn reduces the amount of medical and psychiatric complications. Additionally, overall mortality decreases the sooner a patient is identified. Death by suicide is one concern that could be reduced. In the state of Utah, adolescents are a demographic that is prominent for EDs. Early identification in the adolescent years is essential to reducing overall morbidity and mortality. Providers should seek to use the screening tool during all initial psychiatric intake appointments to help reduce the disease burden associated with EDs.

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CHAPTER FOUR

ADVANCED NURSING ESSENTIALS REFLECTION

Introduction

Throughout the four years I have spent as a Doctor of Nursing Practice (DNP) student at Montana State University, I have had the opportunity to grow in many ways both as a person and in my role as a future nurse practitioner. This reflection will highlight specific examples of how I grown and met six of the DNP essentials which include areas surrounding personal, professional, and leadership development; population health; interprofessional partnerships; scholarship for nursing discipline, knowledge for nursing practice, and systems-based practice.

Personal, Professional, and Leadership Development

In the Advanced Nursing Leadership and Roles course, I was able to learn a significant amount surrounding leadership, my leadership style, and develop my own personal philosophy. The course began by exploring key leadership traits and leadership styles. Positive key leadership traits I identified in myself included being responsible, trustworthy, self-reliant, and kind. Other traits identified were self-doubt, indecisiveness, perfectionism, and shyness. My leadership styles were congruent with my traits as my most well-developed styles surrounded democratic, pace-setting, and coaching leadership. Least developed included the coercive and authoritarian styles.

Both my leadership traits and styles shaped my own personal philosophy of leadership. My current philosophy surrounds the idea of authentic leadership. My goal is to create a sense of

openness and trust to cultivate a team mentality rather than being in an authoritarian roll. In the course I stated, “my goal is not to have a team of followers but to develop a team of leaders”. I believe investing time into my future staff and coworkers and providing them with leadership opportunities will naturally produce a sense of personal development and growth which in turn will transform the places I work.

Population Health

Using my leadership skills that I developed in the Advanced Leadership course, I was able to help advocate for patients with mental health illnesses in the Bozeman, Montana community. First, I did a health policy issue analysis, where I investigated statistics including the use of emergency rooms by those in a mental health crisis as well as patients who saw their primary care provider before their attempted or completed suicide. Further, I explored the population of those living in the State of Montana. I learned vital information such as Montana ranking high in the nation for overall suicide rates as well as the youth suicide rate (Rosston, 2022). Additionally, I also researched into the specific population of Native Americans who had the highest rate in Montana (Rosston, 2022)

At the time the analysis was conducted Bozeman Health had minimal mental health services and did not have an inpatient mental health unit. Patients were sent to the general medical floor. As a result, I wrote a letter to John Hill the CEO of Bozeman Health at the time. I shared my personal experiences regarding the care patients with mental illness were receiving and not receiving as well as statistics surrounding suicide in the State of Montana. I was able to propose a policy that would help better educate primary care and emergency room staff in screening, assessing, de-escalating, and therapeutically communicating with patients with mental

illness. While I was never able to meet with stakeholders at Bozeman health as a result of my policy proposal letter, Bozeman Health does now have increased resources for those with mental health disorders and is working on creating an inpatient psychiatric unit.

Person-Centered Care

Person-centered care has always been an aspect of nursing and advanced nursing practice that I feel is unique to the way we received our education. From the start, we have been taught to individualize care to each and every patient. I want to extend this concept into the teaching role as well. In one of the courses for the teaching certificate, we were asked to write and share our personal philosophy of education. I stated specifically "my personal philosophy centers around developing each student individually". I acknowledged the importance of disseminating knowledge to students, but also highlighted the need to help students understand their personal beliefs, values, and attitudes. The goal for me is to not just send out intellectually competent nurses, but to send out students who know who they are and are confident in their abilities. Empowering students to continuously seek knowledge and critically think. I believe my goal can be achieved by developing each student individually and providing person-centered education.

Interprofessional Partnerships

At the beginning of my DNP project, I was able to work closely with stakeholders at the first site I was planning on doing my project at forming interprofessional partnerships. I attended biweekly stakeholder meetings which consisted of providers, administration staff, and the clinical nurse supervisor. During these meetings, quality improvement projects were discussed. Initially, my project was working with the clinical nurse supervisor to ensure providers and

nurses followed informed consent policies and laws. We both were concerned that the nurses were providing the informed consent when the providers based on hospital policy should have been the ones obtaining informed consent from patients for medication.

Unfortunately, my time with my initial site was limited and several quality improvement projects failed to progress. After changing my clinical site from a hospital to an outpatient clinic, I began to work closely with the head of the human resources department. We worked together to obtain data for my needs assessment. He coordinated weekly provider meetings where we would continually discuss the project as a group to ensure sufficient data was being collected.

Scholarship of Nursing Practice

Due to the interprofessional partnership created with the head of the human resources department, I was able to obtain sufficient evidence that there was a need to improve the screening process for eating disorders to better align with evidence-based practice guidelines. With this knowledge, I began to seek to enhance and transform the care given in the practice through scholarship by creating a quality improvement project. After identifying the need to improve the screening process, I began to synthesize the literature. I found literature surrounding why enhancing the screening process for eating disorders is necessary and what the most recent practice guidelines are stating regarding screening for eating disorders.

The next step I took was translating the research into a quality improvement project proposal. My proposal centered around implementing the SCOFF+BED screening tool into the outpatient practice I was working with. Providers would use the tool during all initial intake visits per the most recent practice guidelines. Once the proposal was created and approved by the outpatient practice, I conducted the quality improvement project collecting data over the course

of six weeks. After finalizing my results, I was able to disseminate my work back to the outpatient practice.

Knowledge for Nursing Practice

While I had many opportunities in my clinical rotations to apply my knowledge of nursing practice, I was also able to do so with my quality improvement project. While searching the literature, I became more knowledgeable on the screening, assessment, and treatment of eating disorders. I learned about their significant medical complications, the importance of obtaining laboratory work, and the need to collaborate with other disciplines such as therapists and dieticians. As part of my project, I gave a presentation to the providers of the practice updating them on the most recent practice guideline changes for the treatment of eating disorders. I was able to discuss the "why" behind my project including topics such as economic impacts of eating disorders, the increased mortality rate, and significant medical complications associated them. We discussed not only why labs are important but what some of the more significant laboratory findings may be and how they correlate with the different eating disorders.

Other Domains

Essentials not mentioned in this paper include quality and safety, systems-based practice, informatics and healthcare technologies, and professionalism. While these essentials were not discussed, I did have the opportunity to meet competencies and sub-competencies throughout my time in Montana State University's Doctor of Nursing Practice Program. These essentials were achieved during different aspects of my degree including time in my clinical rotations, during the core classes, as well as during the teaching certificate program.

Conclusion

My doctoral coursework has been essential in my growth as a person and as a practitioner. I have gained insight into my personal philosophies as both a leader, future educator, and advanced practice nurse. I have developed the tools to be able to influence population health and policy as well as the ability to collaborate with other disciplines. My DNP project has allowed me to explore scholarship and provided me with the understanding to implement future quality improvement projects in my places of work. My coursework experience will continue to influence my practice as an advanced practice nurse for years to come.

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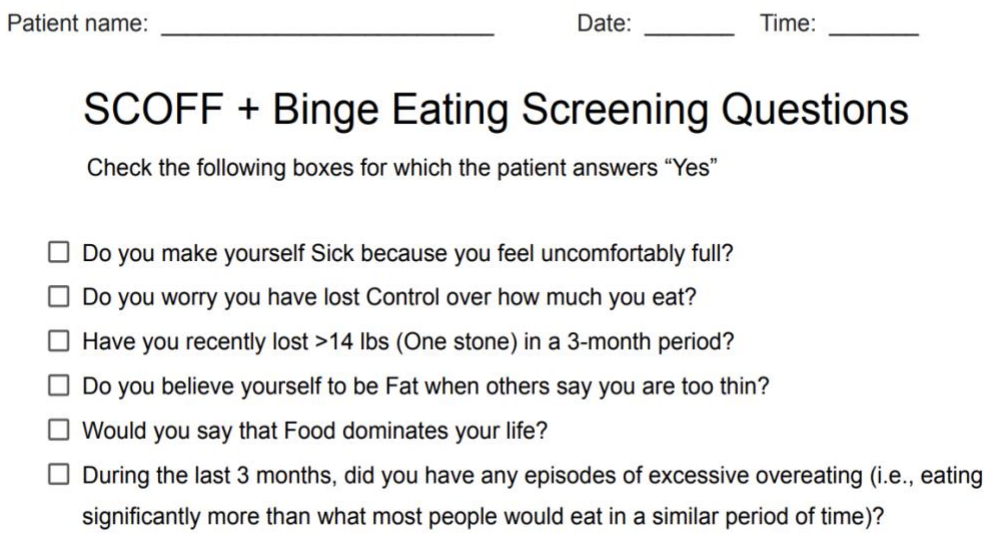
APPENDICES

APPENDIX A

SCOFF+BED QUESTION SCREENING TOOL



Patient name: _____ Date: _____ Time: _____

SCOFF + Binge Eating Screening Questions

Check the following boxes for which the patient answers "Yes"

- ☐ Do you make yourself Sick because you feel uncomfortably full?
- ☐ Do you worry you have lost Control over how much you eat?
- ☐ Have you recently lost >14 lbs (One stone) in a 3-month period?
- ☐ Do you believe yourself to be Fat when others say you are too thin?
- ☐ Would you say that Food dominates your life?
- ☐ During the last 3 months, did you have any episodes of excessive overeating (i.e., eating significantly more than what most people would eat in a similar period of time)?

Figure 4. SCOFF+BED Question Screening Tool

APPENDIX B

IOWA MODEL-REVISED

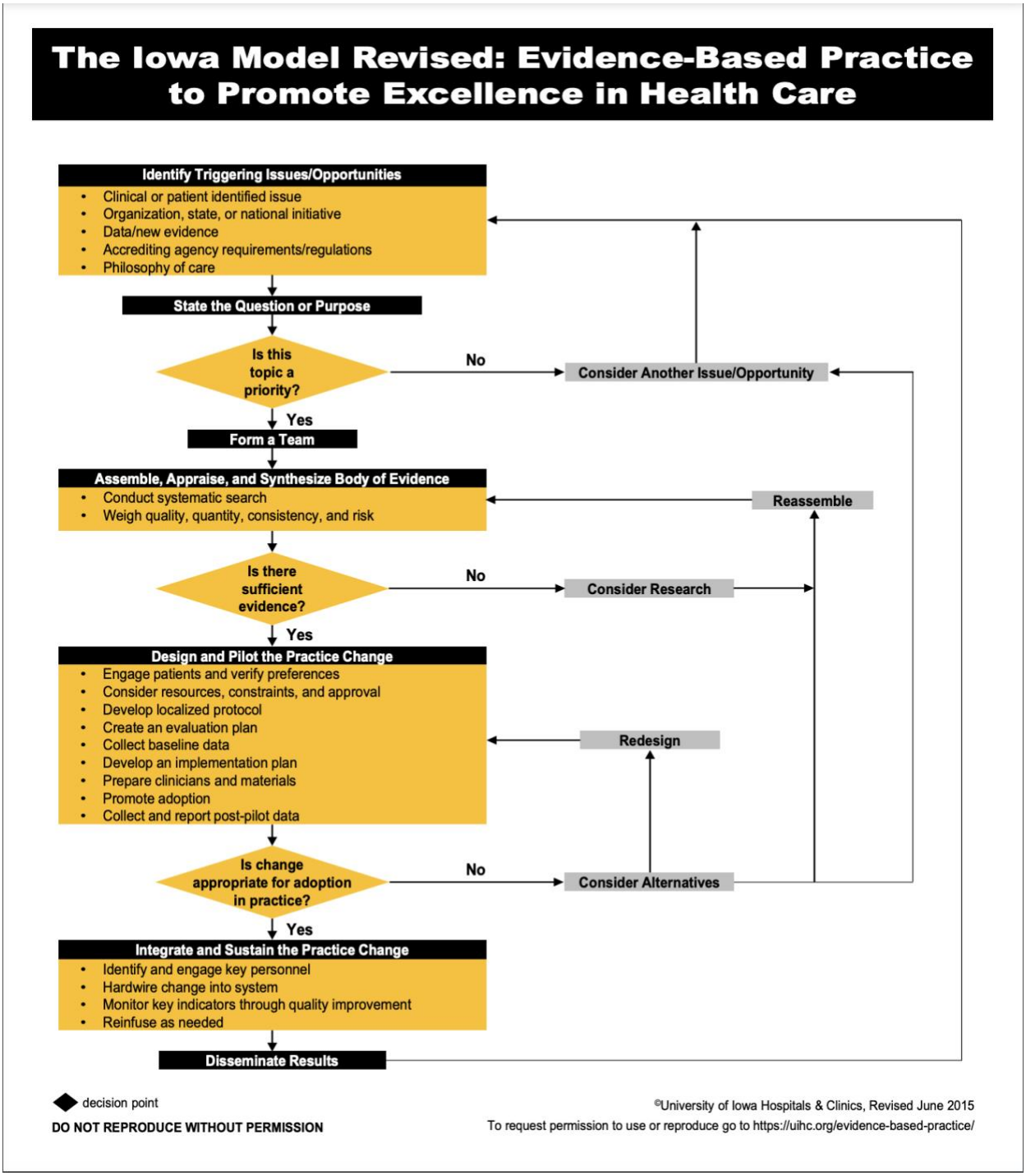


Figure 5. Iowa Model-Revised

APPENDIX C

NEW EATING DISORDER PROTOCOL

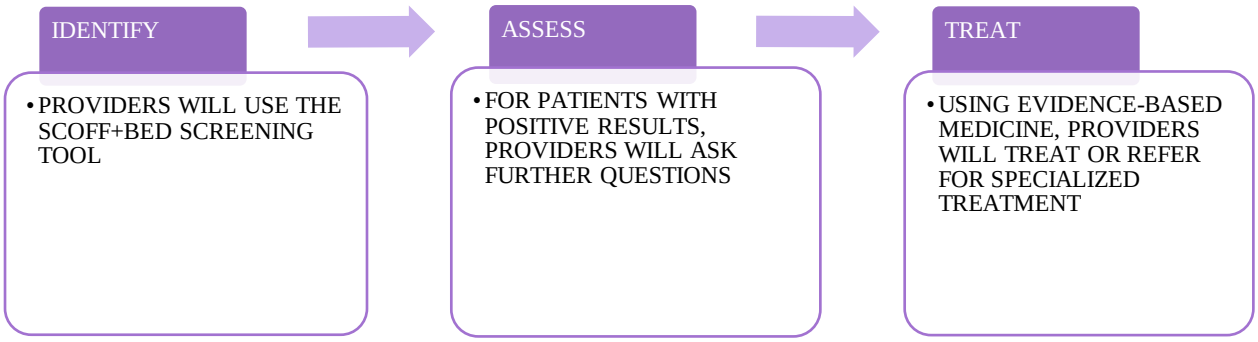


Figure 6. New Eating Disorder Protocol

APPENDIX D

IMPLEMENTATION PLAN

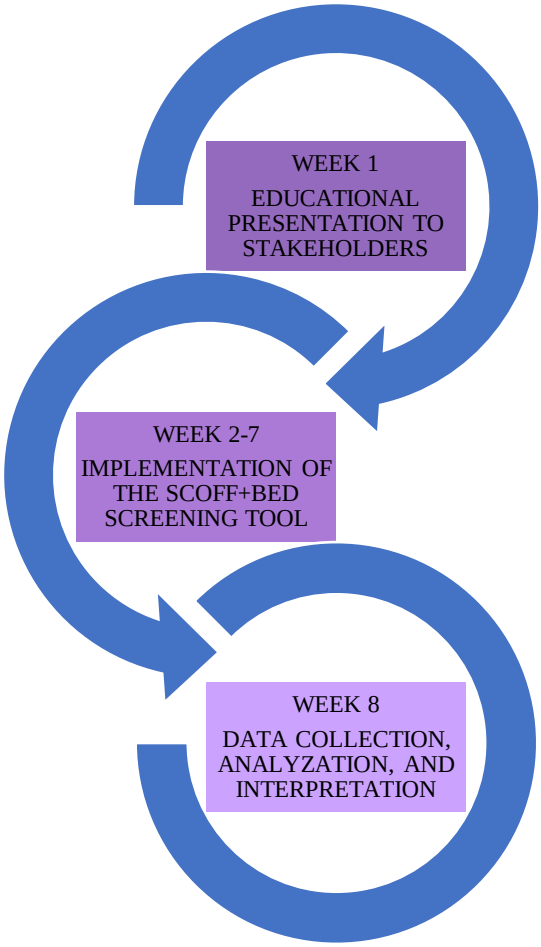


Figure 7. Implementation Plan

APPENDIX E

PRE-SURVEY PROVIDER CONFIDENCE

Directions

Rate your confidence level for the first four sections.

1. Using screening tools to identify eating disorders.
    - Not at all confident
    - Not very confident
    - Somewhat confident
    - Fairly confident
    - Very confident
2. Assessing patients for eating disorders.
    - Not at all confident
    - Not very confident
    - Somewhat confident
    - Fairly confident
    - Very confident
3. Treating patients with eating disorders.
    - Not at all confident
    - Not very confident
    - Somewhat confident
    - Fairly confident
    - Very confident
4. Referring patients with eating disorders to specialized care.
    - Not at all confident
    - Not very confident
    - Somewhat confident
    - Fairly confident
    - Very confident
5. What barriers do you face when it comes to identifying, assessing, and referring patients with eating disorders?

APPENDIX F

POST-SURVEY PROVIDER CONFIDENCE

Directions

Rate your confidence level for the first four sections.

1. Using screening tools to identify eating disorders.
    - Not at all confident
    - Not very confident
    - Somewhat confident
    - Fairly confident
    - Very confident
2. Assessing patients for eating disorders.
    - Not at all confident
    - Not very confident
    - Somewhat confident
    - Fairly confident
    - Very confident
3. Treating patients with eating disorders.
    - Not at all confident
    - Not very confident
    - Somewhat confident
    - Fairly confident
    - Very confident
4. Referring patients with eating disorders to specialized care.
    - Not at all confident
    - Not very confident
    - Somewhat confident
    - Fairly confident
    - Very confident
5. What barriers did you face during the implementation phase of the SCOFF+BED screening tool?
6. Was using the SCOFF+BED screening tool helpful in your practice? Include why or why not.
7. What would make using the SCOFF+BED screening tool easier for your workflow?

APPENDIX G

SCOFF+BED SCREENING TOOL FOR PROVIDER USE

SCOFF + BED Screening Questions

Check the following boxes for which the patient answers “Yes”

☐ Do you make yourself Sick because you feel uncomfortably full?

☐ Do you worry you have lost Control over how much you eat?

☐ Have you recently lost >14lbs (One stone) in a 3-month period?

☐ Do you believe yourself to be fat when others say you are too thin?

☐ Would you say food dominates your life?

☐ During the last 3 months, did you have any episodes of excessive overeating (i.e., eating significantly more than what most people would eat in a similar period of time)?

Outcome of the visit:

☐ Assessment completed

☐ Medications prescribed

☐ Referral sent

☐ No treatment provided

Diagnosis_____