Nursing Education and Comfort Level in Caring for Patients with Eating Disorders

Jaylyn E. Jewell
University of New Hampshire, Durham

Follow this and additional works at: https://scholars.unh.edu/honors

Part of the Psychiatric and Mental Health Nursing Commons

Recommended Citation
Jewell, Jaylyn E., "Nursing Education and Comfort Level in Caring for Patients with Eating Disorders" (2024). Honors Theses and Capstones. 827.
https://scholars.unh.edu/honors/827

This Senior Honors Thesis is brought to you for free and open access by the Student Scholarship at University of New Hampshire Scholars' Repository. It has been accepted for inclusion in Honors Theses and Capstones by an authorized administrator of University of New Hampshire Scholars' Repository. For more information, please contact Scholarly.Communication@unh.edu.
Nursing Education and Comfort Level in Caring for Patients with Eating Disorders

Jaylyn E. Jewell

University of New Hampshire Department of Nursing

Honors Thesis

Dr. Alyssa O’Brien
Abstract

Nurses are integral to providing care to patients with eating disorders, who often present to the generalized hospital setting related to physical complications from their disorder. Despite the vital role nurses play, a lack of education is cited. This project sought to assess knowledge on eating disorders of nurses at a local hospital through dissemination of a survey. A total of n=18 responses were gathered. Results supported the fact that many nurses have received inadequate education on eating disorders, and consequently have low knowledge and competency in the care of these patients. This project seeks to identify this lack of education to necessitate the implementation of an educational plan for nurses surrounding the care of patients with eating disorders and lay the groundwork for adaptation of a standardized protocol in caring for patients with eating disorders at the associated hospital.
Introduction

Eating disorders are crucial for any medical professional to have a thorough understanding of, given their prevalence and high mortality rates. Especially important to the care of patients with eating disorders are nurses, who remain at the forefront of care (Rortveit et al., 2020; Salzmann-Erikson & Dahlen, 2017; Zugai et al., 2017b). Despite literature ascertaining the commonality and health consequences of eating disorders, there is a lack of education and standardization surrounding best practice methods to treat patients with eating disorders in the hospital setting. Many patients must be hospitalized to stabilize prior to entering a specialized facility, and therefore it is important that hospitals implement protocols to appropriately care for these patients. This study seeks to evaluate the education and comfort level of nurses at a moderately sized hospital in the northeastern United States to ascertain gaps in knowledge. This data will lay the groundwork for future research surrounding educational interventions and the implementation of a standard protocol for the care of patients with eating disorders at the hospital.

Background

Eating disorders are becoming increasingly prevalent, affecting about 9% of Americans (ANAD, 2023). Some examples of more common eating disorders include anorexia nervosa, bulimia nervosa, and binge eating disorder. Anorexia nervosa is characterized by intense fear of weight gain alongside efforts to restrict food intake but may have bouts of binging and purging (Moore & Bokor, 2023; Crone et al., 2023). Anorexia nervosa is typically associated with low weight, but some patients may present with normal or higher weights, making BMI an unreliable marker of severity despite its longstanding use as diagnostic criteria (Crone et al., 2023; McEntee et al., 2023). Bulimia nervosa is characterized by consumption of large amounts of food followed
by efforts to purge the food from the body, whether that be through self-induced vomiting, exercising, or other methods (Jain & Yilani, 2023). Binge eating disorder involves frequent episodes of eating large amounts of food, in which the individual feels unable to control themselves. Episodes are often followed by immense guilt (Iqbal & Reman, 2022). Often, individuals may exhibit disordered eating behaviors that do not fit into any of the above categories and may be diagnosed with “eating disorder not otherwise specified” (EDNOS) (Dingemans & van Furth, 2015). Some other types of eating disorders include avoidant restrictive food intake disorder (ARFID), orthorexia, and PICA.

Eating disorders have incredibly high mortality rates, with anorexia nervosa having the highest mortality rate of any psychiatric disorder (Auger et al., 2021). Despite widespread knowledge of the detrimental effects of eating disorders, and hospitals seeing around 10,200 related deaths per year, treatment protocols are not widely standardized, and many misconceptions exist (Crone et al., 2023; Shafii et al., 2022; Loria Kohen et al., 2021; Peebles et al., 2017; Surgenor & Maguire 2013). Important aspects of standardized care for patients with eating disorders include close attention to nutritional intake and signs of refeeding syndrome (Shafii et al., 2022; Voderholzer et al., 2020; Peebles et al., 2017), adequate nutritional education (Kohen et al., 2021) and in-depth understanding of the emotional complexities of eating disorders among healthcare professionals so that inclusive and non-detrimental care can be provided (Surgenor & Maguire, 2013). Aspects of such care may include blind weights (Murray et al., 2020), meal supervision, bathroom locks after meals, and activity restriction (Shafi et al., 2020).

The care of patients with eating disorders requires that healthcare professionals have an adequate understanding of the disease and its mental and physical manifestations. Due to patient
reliance on disordered eating as a coping mechanism, patients may go to great lengths to continue using behaviors within the hospital setting. Such behaviors include hiding food, excessive exercising, purging, and water loading to make weight appear higher, among other efforts to control their weight (Shafii et al., 2022; Peebles et al., 2017). Alongside these behavioral complications, the patient being refed after a period of starvation is at an increased risk for refeeding syndrome. Refeeding syndrome can be deadly due to massive electrolyte shifts and can lead to dangerous arrhythmias (Da Silva et al., 2020; Giovinazzo et al., 2019; Peebles et al., 2017; Sachs et al., 2016). Hypophosphatemia is especially dangerous, as it can lead to diaphragmatic paralysis (Shafii et al., 2022). Therefore, it is important for the safety of patients that healthcare workers understand the risk of refeeding syndrome and recognize the need to monitor increases in food intake closely.

Due to the acknowledged gaps in standardization of care for patients with eating disorders, some hospitals have begun utilizing protocols and monitoring patient outcomes. Protocols may include meal plan regimens and suggested calorie intake, methods of managing electrolyte imbalances such as hypophosphatemia, the implementation of continuous nasogastric feedings, tactics for blood sugar management, meal supervision, and other treatment practices to maintain patient safety and stability. In order to create and implement a standardized protocol at a hospital, one must first assess current knowledge of the care of patients with eating disorders among staff.

Theoretical framework

The Roy Adaptation Model is a theoretical framework that depicts behavior as being affected by physiological and conceptual systems as well as influence from interdependence, self-concept, and group identity (Roy et al., 2009). Past research has recontextualized the Roy
Adaptation Model to represent the unique aspects of eating disorders, which will be utilized in this study (Jennings, 2018). This adaptation offers insight into the complex nature of eating disorders and the impact of physical and psychosocial factors. These factors include perception of weight and body image, social support, autonomy and sense of control, nutrition, and compensatory behaviors that come together to form coping processes (Jennings, 2018). These factors help to guide the most influential aspects of understanding as they pertain to nursing knowledge and education about eating disorders, as well as highlight areas of interest for potential treatment protocols.

Review of the Literature

Nursing Education

Within the literature, it is well documented that nurses are at the forefront in caring for patients with eating disorders, playing an integral role in a patient’s recovery (Rortveit et al., 2020; Foà et al., 2019; Stavarski et al., 2018; Salzmann-Erikson & Dahlen, 2017; Zugai et al., 2017b). However, nurses face many challenges in providing adequate care for these patients. An important aspect of care as identified in the literature is therapeutic alliance, which is something that many nurses report struggling to develop with patients that have eating disorders (Wu & Chen, 2021; Seah et al., 2018; Zugai et al., 2017a; Zugai et al., 2017b). This challenge is often related to stigmatized beliefs towards individuals with eating disorders as well as lack of education. One study surrounding attitudes of nurses towards patients with eating disorders discovered that 45.2% of interviewed nurses reported feeling frustrated towards patients with eating disorders (Raveneau et al., 2013). Additionally, only around 50% of the nurses reported feeling any sympathy for these patients, and only 12.5% of the nurses reported feeling fulfilled by providing this care (Raveneau et al., 2013). Another more recent study focused on the
attitudes of nurses working on a specified eating disorder unit and found that rates of negative attitudes were high (Seah et al., 2018). This indicates that stigma exists both in nurses who specialize in the care of patients with eating disorders and those that specialize in other areas. Therefore, alongside providing education, stigma and biases should be addressed. Another important aspect of developing therapeutic alliance defined in the literature is the ability of the nurse to maintain authority, as this may be undermined by patients in an effort to maintain use of eating disorder behaviors on the unit (Zugai et al., 2019; Zugai et al., 2017a). This confrontation may influence stigma and outlines an important area of education for nurses.

Aside from stigma, lack of education is another obstacle to forming a therapeutic alliance and providing adequate care. In Raveneau’s (2013) study, despite many of the participating nurses reporting negative attitudes towards patients with eating disorders, 77.4% of them identify that establishing a knowledge base and receiving support are integral to providing proper care to these patients. In another study by Foa et al., (2019), nurses report that having proper education on this subject is expected of them. Despite these expectations, many nurses lack adequate education on eating disorders. Seah et al., (2018) found that nurses tend to have a high level of perceived education but score poorly when their actual knowledge is tested. Despite knowledge gaps, it is well documented in multiple other studies that nurses report education as being crucial to caring for patients with eating disorders (Wu & Chen, 2021; Salzmann-Erikson & Dahlen, 2017; Raveneau et al., 2013). Therefore, improvements in treatment are dependent on addressing gaps in nursing knowledge.

To address the obstacles of lack of knowledge and stigma, both of which influence one another, it is important to establish adequate educational programs for nurses. This education should focus on dispelling misconceptions and stigmatized beliefs that individuals often hold.
Another method of improving connection is focusing on hope, which has been shown to be efficacious in cultivating a therapeutic alliance (Stavarski et al., 2018). Additionally, Raveneau et al., (2013) indicates that nurses view lack of standardization of care as a major obstacle. They report that lack of standardization leads to lack of communication between members of the healthcare team and inconsistent enforcement of rules with patients. Therefore, to improve outcomes for patients with eating disorders, gaps in education, stigmatized beliefs, and indications for best medical practice must be analyzed to integrate standardized protocols. The goal of this project is to target the first barrier; that is, a lack of education and the presence of stigma among nurses.

**Current Recommendations**

A lack of standardization in healthcare education and protocols for treating patients with eating disorders has long been documented within the literature (ANAD, 2023; Shafii et al., 2022; Loria Kohen et al., 2021; Peebles et al., 2017; Surgenor & Maguire 2013). However, in February of 2023, the American Psychiatric Association (APA) published a clinical practice guideline (CPG) for the treatment of patients with eating disorders which provides an important impetus to standardizing treatment. This review of literature will focus on areas of the CPG as well as other reviewed guidelines that apply to medical stabilization in the general hospital setting with a focus on the nurse’s point of view to guide future educational interventions. This review will not focus on areas of specialized or long-term treatment such as behavioral therapy tactics or psychiatric medication recommendations for providers, and instead will focus on initial management in the general hospital setting.
Initial Assessment

When the nurse is caring for a patient with a suspected eating disorder, initial assessment is vital to establishing risk. Assessment should include current height and weight as well as height and weight history (Crone et al., 2023; Garber et al., 2019; Whitelaw et al., 2018). The patient’s weight should never be used as the sole indicator of the severity of the disorder (APA, 2023; Whitelaw et al., 2018). The nurse should also ask the patient about their typical eating and exercise patterns, as well as explore their beliefs surrounding their eating and exercise habits (APA, 2023; Dobinson et al., 2019; Dittmer et al., 2018). The nurse will also want to ask the patient about behaviors such as binging, purging, and laxative use. It may be helpful for the nurse to assess for the amount of time the patient believes to spend preoccupied with thoughts of food, exercise, and their body each day (Crone et al., 2023). A CBC as well as liver and kidney function test and an electrolyte panel should be collected (Rosen et al., 2016). Patients with restrictive eating disorders and or purging behaviors are at risk for cardiac arrhythmias, and therefore should receive a baseline EKG upon admission (Crone et al., 2023; Giovinazzo et al., 2019; Sachs et al., 2016). The rest of the assessment should include collection of vital signs, a comprehensive review of systems, orthostatic pulse and blood pressure, body mass index (BMI), and analysis of physical appearance for other signs of malnutrition (Crone et al., 2023).

After the initial assessment, the healthcare team should work with the patient to create goals for their hospital stay. For patients with restrictive eating disorders that are underweight, this will likely include a target weight and a goal to gain around two to four pounds a week (Crone et al., 2023). For patients that struggle with binging and purging behaviors, the treatment team can discuss ways to limit this behavior on the unit which may include meal supervision and bathroom locks after meals. For any adolescent patients, it is recommended that the family be
involved in goal setting and play an active role in the treatment process (APA, 2023; Lock et al., 2015).

**Meals and Refeeding**

Refeeding syndrome is a concern for any patient with a restrictive eating disorder. However, current evidence suggests that these patients should be started on a rapid renourishment protocol, usually starting at 1,500-2,000 calories per day (Crone et al., 2023; Golden et al., 2021; Garber et al., 2016). Calories are then to be titrated upwards to maintain weight gain as per target weight, and commonly reach 3,000-4,000 calories daily (Crone et al., 2023). Early and rapid weight gain is associated with better treatment outcomes than slower methods of refeeding (Crone et al., 2023; Wade et al., 2021). It is recommended that patients receive nutrition orally, but they may require supplemental nasogastric (NG) feedings if they are unable to maintain adequate oral nutrition (Crone et al., 2023; Garber et al., 2016). NG feedings should be used in the short term and should be discontinued as soon as possible. TPN is not recommended for refeeding. There is currently debate within the literature if prophylactic phosphate supplementation should be provided to prevent hypophosphatemia (Society for Adolescent Health and Medicine, 2022; Leitner et al., 2016; Norris, 2016). Despite debate about electrolyte supplementation, it is recommended that levels of phosphorus, magnesium, potassium, and calcium should be measured daily until stabilized (Crone et al., 2023).

**Monitoring**

Maintaining close monitoring and observation for the hospitalized patient with an eating disorder is integral to care. It is common that individuals with eating disorders use disordered behaviors to cope with stressful situations and emotions, and therefore the patient is at high risk
of utilizing such behaviors on the unit. Behaviors on the unit may include but are not limited to hiding food, throwing away food, purging, exercising, hoarding food, and are especially common in patients with anorexia nervosa (Crone et al., 2023; Gianini et al., 2015). For patients that are underweight and struggling with a restrictive eating disorder, they may attempt to alter their weight during weight-checks in order to avoid weight actual gain. For example, patients may hide weights on their person or consume excessive amounts of water before being weighed, which can lead to dangerous complications such as water intoxication. To combat this, the nurse should weigh the client in their hospital gown at the same time each day after voiding and observe their behavior prior to weight checks (Crone et al., 2023). The nurse may also collect a urine sample before weighing the patient and assess the urine specific gravity for signs of water-loading (Crone et al., 2023). It may also be helpful for the nurse to instruct patients to turn their back to the scale when being weighed in order to prevent them from seeing the number, which can be distressing (Wagner et al., 2022; Froreich et al., 2020; CWEDP, 2010). However, the implementation of blind weights may differ for each patient. The nurse or other personnel should also be present during meals to ensure that the patient consumes their meals. Some protocols include the implementation of bathroom locks after meals to reduce episodes of purging. Patients that are severely underweight patient should also be continuously monitored for engagement in excessive exercise, and their exercise should be limited to no more than 1.5 hours a week if their weight is not increasing (Crone et al., 2023).

Aside from monitoring for disordered behaviors, there are many ongoing medical assessments the nurse must monitor. The APA CPG (2023) encourages consistent monitoring of electrolyte levels, EKG readings, weight, intake and output, blood sugar, and edema. Proulx-Cabana et al., (2022) outline a monitoring protocol used for patients with eating disorders in their
hospital that outlines more specific recommendations. This protocol recommends that any patients with heart rate under 30 beats per minute or QTc prolongation should be on continuous EKG monitoring (Proulx-Cabana et al., 2022). Additionally, the protocol states that intake and output should be monitored every four hours for the first 48 hours of admission, that blood glucose should be monitored every two hours and after meals for 72 hours, and that phosphate levels should be checked daily for at least three days (Proulx-Cabana et al., 2022). Specific guidelines and parameters for monitoring will vary per hospital protocol and per physician order.

Managing Behaviors and Therapeutic Communication

While eating disorders increase risk for many physical complications, it is important to not forget about the mental aspect of eating disorders. Weight gain and inability to engage in disordered behaviors can bring about extreme distress for the patient with an eating disorder, and therapeutic communication is important. Firstly, the nurse should understand that they may need to be firm with the patient at times to set limits on behaviors (Girz et al., 2014). Within the literature, patients have reported that while the structured and strict nature of eating disorder treatment is distressing, that very structure is integral to their recovery (Rørtveit et al., 2020; Salzmann-Erikson, 2016). To maintain structure, it is important that the nurse sets clear limits and expectations with the patient while still maintaining a caring and non-judgmental attitude (Jennings, 2017; Rørtveit et al., 2020; Salzmann-Erikson, 2016). Cultivating and maintaining this kind of therapeutic relationship can be difficult for the nurse, however. In a study on the perspectives of nurses in Taiwan caring for patients with eating disorders, many nurses have stated that they struggle with resentment towards these patients (Wu & Chen, 2021). The resentment stems from patients refusing treatment and engaging in unhealthy behaviors, which nurses have stated feels like a personal attack on their care at times (Wu & Chen, 2021).
However, it is important that the nurse understands that the patient is not being manipulative or undermining, but simply struggling with their mental illness (CWEDP, 2010). Especially in patients with anorexia nervosa, it is common for them to struggle with motivation, and they may even value their eating disorder (Gregertson et al., 2017). Despite lack of motivation, these patients still deserve support and compassion alongside proper treatment. With proper education, the nurse can be prepared for the risk of dissonance between themselves and the patient and monitor their attitudes in order to maintain a therapeutic relationship that does not place blame on the patient.

Another aspect of therapeutic communication is being mindful of the language used when speaking to patients. The nurse should avoid discussing things such as calorie content, dieting, and weight, as these topics may be triggering to the patient (CWEDP, 2010). The nurse should also avoid commenting on the patient’s body or appearance. A common trigger that many healthcare professionals are unaware of is telling a patient with an eating disorder that they look “healthy” or “healthier.” While these statements may be well intentioned, patients with eating disorders often have a distorted perception of health and take comments about them looking healthy to mean that they have noticeably gained weight. Existing literature recommends that healthcare professionals instead say things such as “you are thinking much more clearly” when commenting on their progress (CWEDP, 2010). The nurse should also individualize care by being aware of each patient’s unique triggers and being mindful of these during patient interactions.

Methods

The survey used for data-collection in this study was adapted from an existing survey that sought to assess education level surrounding eating disorders in medical students (Girz et al.,
The survey was also informed by the Central West Eating Disorder Program (CWEDP) (2010) Toolkit as well as the American Psychological Association (2023) Practice Guideline for the Treatment of Patients with Eating Disorders. The survey was created to target nurses working in various specialties at a moderately sized New England hospital and does not include the perspectives of other healthcare professionals. The survey collects demographic information including amount of time in practice as a nurse and level of nursing degree. Additionally, those taking the survey were asked to identify length of time in hours spent learning about eating disorders in their undergraduate education as well as self-perceived comfort level in caring for patients with eating disorders, recognizing signs and symptoms, and engaging in therapeutic communication. The survey then asked several true or false questions pertaining to common misconceptions about eating disorders as defined in the literature (Girz et al., 2014; CWEDP, 2010).

The survey was constructed using Qualtrics and was disseminated with a short presentation alongside distribution of a promotional poster that included a QR code linking to the survey. The survey was created with input from the hospital’s research innovation council and received approval as a quality improvement project from both the hospital and the associated university prior to initiating data collection. The author visited the hospital on two separate occasions to present the survey to nurses during the morning huddle at the hospital’s maternity unit and emergency department. Further posters were spread onto the PICU, ICU, and Medical Surgical floors to reach more nurses. Data collection began on February 1st, 2024, and went until March 21st, 2024, when the last survey entry was submitted.
Results

Demographics

In total, there were n=18 survey responses. Of these 18 responses, 15 answered all the questions in full. The majority of the respondents had been nurses for over 20 years (n=11) as seen in Figure 1. Level of education varied, with the majority having their bachelor’s degree in nursing (n=9) or their master’s degree in nursing (n=6), which is demonstrated in Figure 2.

Figure 1

*Time Spent as a Nurse*

<table>
<thead>
<tr>
<th>How many years have you been a nurse?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 20 years</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Figure 2

*Years as a Nurse*

<table>
<thead>
<tr>
<th>Degree type</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelors</td>
<td>10</td>
</tr>
<tr>
<td>Masters</td>
<td>6</td>
</tr>
<tr>
<td>Doctorate</td>
<td>2</td>
</tr>
<tr>
<td>Associates</td>
<td>1</td>
</tr>
</tbody>
</table>
Training

17 of the respondents answered the question about length of time receiving training or education on the care of patients with eating disorders in nursing school. These results can be visualized in Figure 3. The majority of respondents reported having either less than five hours of training (n=9) or not recalling the amount of time spent training (n=6). Two respondents reported 6-10 hours of training. One of the respondents that reported 6-10 hours of training had a doctorate’s degree, and the other respondent had their bachelor’s degree, making a correlation between degree level and time spent training unclear. Of those that reported less than 5 hours of training, n=5 had their master’s degree, n= 1 had their doctorate, n= 3 had their bachelors, and n=1 had their associates, indicating that lack of education persists throughout multiple degrees of education. Additionally, the majority of respondents who reported under five hours of training and been a nurse for either 11-20 years (n=2) or over 20 years (n=7). One nurse had been in the field for under five years, and indicated having 6-10 hours of training, which is longer than many other respondents. It is important to keep in mind, however, that many of the respondents that reported not remembering the length of time spent training had been nurses for either 11-20 years (n=2) or over 20 years (n=4) which may impact the reliability of this measure.
Figure 3

_Hours Spent Training in Nursing School_

The survey measured whether respondents felt they had received adequate education alongside their comfort and confidence in caring for, recognizing symptoms, and providing therapeutic communication to patients with eating disorders. These questions were answered on a Likert scale of 1-5, with 1 being strongly disagree, 2 being somewhat disagree, 3 being neither agree or disagree, 4 being somewhat agree, and 5 being strongly agree. The findings for these questions are illustrated in Figure 4.

The majority of respondents reported feeling that their education on caring for patients with eating disorders in nursing school was inadequate. Only two respondents indicated that they somewhat agreed that they received adequate education. Both of these respondents reported having 6-10 hours of training in school, which is higher than the majority of other respondents. One had a bachelor’s degree while the other had a doctorate’s degree, making it difficult to draw conclusions about type of degree and perception of education.
Despite most of the respondents identifying low time spent on educational training alongside perceived lack of education on caring for patients with eating disorders, only one respondent strongly disagreed that they were comfortable caring for these patients. Therefore, it seems that despite identified lack of training and education, nurses may still feel prepared to care for patients with eating disorders. This may indicate that learning occurs through time spent in practice and through lived experiences. Additionally, a greater majority reported feeling comfortable recognizing symptoms of eating disorders as compared to other skills, which may speak to the content of education received in nursing school.

Lastly, respondents were asked about their comfort and confidence in their ability to provide therapeutic communication to patients with eating disorders. As compared to recognizing signs and symptoms, less people responded with strongly agree, and more people responded with somewhat agree. The majority of respondents that reported somewhat or strongly agreeing had reported feeling confident in recognizing signs and symptoms. Of note, when confidence level pertaining to therapeutic communication was compared to accuracy on question 11, which pertained to the use of therapeutic communication, there were no apparent trends in accuracy and confidence level. This comparison is illustrated in Figure 5. However, there was not enough data to perform a reliable statistical analysis, and further evaluation is needed.
Figure 4

*Confidence and Comfort*

![Confidence and Comfort Chart]

Figure 5

*Therapeutic Communication: Confidence Versus Accuracy*

![Therapeutic Communication Chart]

True and False Questions

n=16 respondents answered the eight true and false questions. The average score was 51.5% accuracy with a minimum score of 0% and a maximum score of 87.5%. The overall accuracy results for this section are depicted in Figure 6 and Figure 7. Interestingly, the participant that received the lowest score strongly agreed that they felt confident caring for, recognizing signs and symptoms, and providing therapeutic communication to patients with eating disorders. Additionally, the respondent with the highest score reported that they somewhat
disagreed that they were comfortable and confident in caring for patients with eating disorders, recognizing signs and symptoms, and providing therapeutic communication. Of the six respondents that reported somewhat or strongly agreeing that they feel confident in providing therapeutic communication, only half of them got question 11 correct, which pertains to therapeutic communication. While there was not enough data to perform a statistical analysis, the findings indicate that there may not be a correlation between confidence and knowledge.

**Figure 6**
*True and False Accuracy Questions 5-8*

![Figure 6](image_url)

**Figure 7**
*True and False Accuracy Questions 9-12*

![Figure 7](image_url)
Confidence scores were then averaged for each respondent using the numbers associated with their answers on the Likert scale. There was not enough data to perform a reliable statistical analysis, but average confidence scores and accuracy on the true and false portion were plotted to assess for visual trends. Of note, the respondent with the highest confidence score received the lowest accuracy on the true and false section. The individual with the highest accuracy had a much lower confidence score. This comparison can be visualized in Figure 8.

**Figure 8**

*Average Confidence Score Versus Accuracy*

Several of the true and false items stood out as the majority of respondents answered incorrectly. The first item was question nine which asks about regulations surrounding disclosure of diagnosis to the parents of a minor. The majority of respondents answered that minors have the right to refuse to disclose their diagnosis to parents. However, this disclosure is usually mandatory, and therefore the answer is false (Girz et al., 2014). Despite these findings, regulations may vary across states and depend on age, which may account for the variation in answers. Additionally, the majority of respondents answered question 10 incorrectly, which asks
about motivation and recovery. Many respondents identify that adolescents need motivation in order to receive treatment, but the answer to this question is also false. Lastly, it was noted that most respondents answered question 12 correctly, which pertains to risk level associated with weight and BMI.

**Screening**

At the end of the survey, respondents were asked whether they believed screening for eating disorders is useful for all adolescents upon admission. The findings for this item are shown in Figure 9. The majority of respondents (n=8) responded with yes. Additionally, the final question asked respondents if they had any feedback or thoughts on the survey. The majority did not answer this question, but one respondent indicated that they felt there are a lack of resources to help those with eating disorders, and wondered how they could access more resources, indicating openness towards education.

**Figure 9**

*Screening Value*
Discussion

Overall, the results from the survey supported findings in the literature that nurses lack education on treating patients with eating disorders. The majority of respondents reported receiving inadequate education on the topic. However, it is important to note that many of the respondents had been nurses for over 20 years and did not recall the training or education received. Additionally, while many indicated feeling as though their education was inadequate, many felt comparatively more comfortable in caring for patients, recognizing symptoms, and providing therapeutic communication. Questions five through eight asked about recognizing symptomology of eating disorders. The majority got questions five, six, and seven correct. However, the majority answered eight incorrectly, indicating that they believe those with anorexia nervosa will usually present underweight, which is a common misconception (Crone et al., 2023; McEntee et al., 2023). Overall, scores on the true or false section were low, with average accuracy being 51.5%. It is important to consider that many respondents chose “neither true or false” which likely indicates they were not sure of the answer.

Of note, the respondent with the highest confidence rating received the lowest accuracy score and had been a nurse for over 20 years. This may indicate that nurses that have been in the field have received education on the treatment of patients with eating disorders, but that education is now outdated and does not align with current best-practices. Additionally, newer nurses may feel less confident due to less experience, but the education they received may be more up to date, reflecting higher accuracy scores. However, the respondent that received the highest score had also been a nurse for over 20 years, which makes it difficult to draw conclusions about education and time spent as a nurse. This further necessitates the need for
more targeted research into gaps in knowledge and education to develop improved education about the care of patients with eating disorders.

There were several true or false questions that stood out amongst the others due to the responses. For example, the majority of respondents got question nine wrong, which asks about rules surrounding disclosing an eating disorder diagnosis to the parents of an adolescent. The answers to this question are represented in Figure 10. The majority asserted that the nurse must receive permission from the child before informing the parents, but as per the original survey used as a basis for this question, the answer is false (Girz et al., 2014). However, it is important to note that some states differ in their rules about disclosure and confidentiality in adolescents, which may account for the variation in answers (Sharko et al., 2022). In the state the research was gathered, adolescents are typically able to consent to mental health treatment and are afforded confidentiality if they are deemed competent to make medical decisions (English, 2019). However, it is important to note that many young children would not meet the criteria for individual consent laws in the state where this project took place. Additionally, due to the dangerous nature of many eating disorders and the effect malnutrition can have on the brain, even older adolescents may not meet the criteria in this state.
Another question that stood out was question 10, which asks about the importance of motivation in recovery from an eating disorder. This question is illustrated in Figure 11. The majority of respondents indicated that patients needed motivation in order to receive treatment. While it is true that motivation can be a predictor of positive outcomes, motivation tends to fluctuate in those recovering from eating disorders, especially those with anorexia nervosa (Rankin et al., 2022). Additionally, the majority of patients with eating disorders do not seek care on their own, but are instead referred or forced into treatment by friends, family, or legislative processes (Gregertson et al., 2017; Freda et al., 2015) With anorexia nervosa specifically, many patients tend to value their disorder due to distorted thought processes, which further complicates motivation to recover (Gregertson et al., 2017). Therefore, it is common that patients with anorexia nervosa do not demonstrate any motivation to recover. While motivation can be helpful, it is important for healthcare workers to realize that lack of motivation does not exclude the patient from receiving treatment and support. These findings can be related back to findings of stigma towards patients with eating disorders among healthcare workers. Wu & Chen (2021)
performed a qualitative analysis on the perspective of healthcare workers in caring for patients with eating disorders. Many of the respondents reported feeling resentful towards these patients, citing lack of motivation and resistance to treatment as a triggering factor. Additionally, only 50% of nurses reported feeling sympathy for these patients. These findings are important to highlight when considering future education to combat stigma.

**Figure 11**

*True and False Question 10*

Another true or false question of interest is question 12, which is depicted in Figure 12. This question asks about risk factor and weight. The majority of respondents got the question correct, agreeing that patients still experience risks related to their eating disorder once they reach a healthy weight. This is of particular interest, as it demonstrates understanding among nurses, which differs greatly with what is seen in practice. Throughout the literature, it is well documented that individuals that have an eating disorder and are at what is deemed a medically healthy weight are often undermined, invalidated, and denied treatment (Barko & Moorman, 2023; Eiring et al., 2021). Additionally, Barko & Moorman (2023) assert that being discharged upon reaching medically acceptable BMI was a common trend among those receiving treatment.
for anorexia nervosa. Also, multiple studies indicate that many patients with anorexia nervosa experience the highest amount of distress when initially becoming weight restored as they adjust to changes in their body (Barko & Moorman 2023; Eiring et al., 2021). It is interesting to compare the results of question 12 to the results of question eight, which asked about whether or not those with anorexia nervosa are typically underweight. The majority got this question wrong, indicating that they were either unsure about the answer, or believed that those with anorexia nervosa will always present underweight. Therefore, these findings indicate a gap between knowledge and practice, and necessitate the need for alterations in provided medical care for patients with eating disorders.

**Figure 12**

*True and False Question 12*

"Patients with eating disorders who were underweight are no longer at risk once they reach a healthy BMI"

The findings of this quality improvement project indicate that further research is needed to identify the educational needs of nurses when learning about caring for patients with eating disorders. Future research should include larger sample sizes and differentiate between specialties to identify learning needs among nurses working in different environments. Emphasis should be placed on nursing knowledge surrounding motivation in recovery, legal disclosure
about diagnosis to parents of adolescents, available resources, and therapeutic communication.

Additionally, much of the current data focuses on anorexia nervosa. Future research should focus on implications for other eating disorders, including but not limited to BED, bulimia nervosa, ARFID, Pica, orthorexia, and EDNOS. Once learning needs are identified, educational plans consistent with best practice defined in current literature can be disseminated. This increased education will better prepare nurses in providing adequate care to patients with eating disorders and lay the groundwork for the establishment of standardized protocols in the hospital setting.

**Limitations**

Limitations of this project include a small sample size that focuses only on the perspective of nurses. During the dissemination of the survey, it was difficult to recruit nurses to take the survey. This may have been due to the fact that the survey was presented in the work setting where they had limited time or felt pressure to perform well. Additionally, the findings of the survey did not differentiate between nurses working on different units, and instead viewed their perspectives as a whole. The scope of this project did not allow for the construction of a focused education plan or development of a treatment protocol. Instead, this study sought to assess baseline knowledge among nurses to necessitate and guide further research. Future research should delineate nursing education on multiple units and in multiple settings to determine differences in exposure to and knowledge of patients with eating disorders across units.

Another important limitation of this study is the focus on restrictive eating disorders. Much of the existing literature surrounding nursing education and treatment protocols for patients with eating disorders focuses on restrictive eating disorders, especially anorexia nervosa. There is a lack of literature focusing on other disorders such as bulimia and binge eating.
disorder. However, there is adequate literature outlining the presence of stigma among healthcare professionals towards patients with binge eating disorders (Reas, 2017). Additionally, nurses are shown to lack education on how to care for patients categorized as obese (Torre et al., 2018). Therefore, this is an important area of research that should be considered in the development of treatment protocols for patients with eating disorders.

**Conclusion**

Currently, there is a lack of standardization in care for patients with eating disorders. Nurses are at the forefront of providing care to these patients, but often hold stigmatized beliefs and have a lack of education on eating disorders. Patients with eating disorders, specifically anorexia nervosa, are at high risk for medical complications and mortality. Due to these complications, these patients often end up in the generalized hospital setting, where there is a lack of standardized care practices. This study seeks to identify baseline knowledge of eating disorders among nurses to lay groundwork for future standardization among hospitals. The results support the fact that education levels about eating disorders are low among nurses, and that further education is necessary. When nurses are educated about the care of patients with eating disorders, they feel more confident to provide care. With this foundation of education, hospitals can then instate protocols to promote adequate care for patients with eating disorders in the general hospital setting.
References


https://doi.org/10.1186/s40337-020-00316-1


Appendices

Introduction: Thank you for taking the time to fill out my student survey. This is part of my honors in nursing coursework at the University of New Hampshire. This survey will ask a series of questions to gauge the level of education and confidence of nurses in caring for patients with eating disorders. It will consist of questions about time spent on eating disorders in nursing school, true and false questions to gauge knowledge about eating disorders, and questions with a Likert scale to evaluate things such as confidence. This survey was adapted from an existing survey that sought to measure education and confidence of medical residents in caring for patients with eating disorders (Girz et al., 2014) and informed by the Central West Eating Disorders Program Toolkit (2010) for provider education on the care of patients with eating disorders.
This project has been reviewed by the [redacted] Hospital Research Innovation Council and has been deemed to be a quality improvement project.

Note: The following questions are intended for demographic purposes and will ask about your length of time in nursing and type of nursing degree you hold.

Q1 How many years have you been a nurse?

- Less than 5
- 5-10
- 11-20
- Over 20

Q2 What type of nursing degree do you currently hold?

- Associates
- Bachelors
- Masters
- Doctorate

Note: The following questions will ask about your education and comfort levels in caring for patients with eating disorders.

Q3 How many hours of training/curriculum do you recall having on eating disorders in nursing school?

- Less than 5 hours
- 6-10 hours
- More than 10 hours
- I don't recall
Q4 Rate the level to which you agree with the following statements (Note: If you are taking this survey on a mobile device, press the arrow next to each statement to view a dropdown menu and select your answer.)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree (1)</th>
<th>Somewhat disagree (2)</th>
<th>Neither agree nor disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Strongly agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;I feel that I received adequate education in nursing school on how to care for patients with eating disorders.&quot; (Q4-1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;I am comfortable and confident in my ability to care for patients with eating disorders.&quot; (Q4-2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;I am confident in my ability to recognize signs and symptoms of eating disorders.&quot; (Q4-3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;I am confident in my ability to provide therapeutic communication to patients with eating disorders.&quot; (Q4-4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Note: The following are a series of true and false questions to evaluate your knowledge and perception of eating disorders.

Q5 If you eat 3 meals a day and do not purge, you are not likely to have an eating disorder.

- True
- Neither true nor false
- False

Q6 Individuals with bulimia nervosa always purge by vomiting or using laxatives.

- True
- Neither true nor false
- False

Q7 Individuals with anorexia nervosa do not binge or purge.

- True
- Neither true nor false
- False

Q8 Adolescents with anorexia nervosa typically look underweight.

- True
- Neither true nor false
- False
Q9 A child with an eating disorder has the right to not disclose this information to their parents.

- True
- Neither true nor false
- False

Q10 Adolescents need at least some motivation to receive treatment.

- True
- Neither true nor false
- False

Q11 It is appropriate to tell a patient with an eating disorder that they are looking healthier.

- True
- Neither true nor false
- False

Q12 Patients with eating disorders who were underweight are no longer at risk once they reach a healthy BMI.

- True
- Neither true nor false
- False
Q13 Do you believe there is value in screening all adolescents and young adults for eating disorders on admission to the hospital?

- No
- Maybe
- Yes

Q14 Is there anything that was not included in this survey that you would like to inform us about or elaborate on?