LEARN TO LISTEN: ASSESSING THE EFFICACY OF AN EATING DISORDER COMMUNICATION INTERVENTION AMONG ADOLESCENTS

by

Ashleigh Shields

A Dissertation

Submitted to the Faculty of Purdue University

In Partial Fulfillment of the Requirements for the degree of

Doctor of Philosophy

Brian Lamb School of Communication

West Lafayette, Indiana

August 2021

THE PURDUE UNIVERSITY GRADUATE SCHOOL
STATEMENT OF COMMITTEE APPROVAL

Dr. Marifran Mattson, Chair
Brian Lamb School of Communication

Dr. Bart Collins
Brian Lamb School of Communication

Dr. Maria K. Venetis
Department of Communication

Dr. Gerald Hyner
Department of Public Health

Approved by:
Dr. Marifran Mattson

Dedicated to all of those who have, are currently, and will battle an eating disorder. You are not alone.

ACKNOWLEDGMENTS

There are so many people and things I would like to thank! To begin, I would like to thank the members of my committee. First, I would like to thank my advisor, Dr. Marifran Mattson, for her guidance, patience, and constant support during this process. Thank you for helping me grow and gain the confidence I needed. Next, I would like to thank Dr. Bart Collins, for all his help with my methods, results, and discussion section. I honestly would not have been able to get through it without you! Dr. Maria K. Venetis is another individual I would like to thank! Thank you, Maria, for all you have done for me and continue to do for me! I appreciate you so much! Another person I would like to thank is Dr. Gerald Hyner. Thank you Dr. Hyner for always being so kind, approachable, helpful, and supportive. I am so thankful for your guidance throughout this process. Thank you all so much again. I could not have asked for a better committee!

Next, I would like to thank other faculty and staff mentors of mine. To begin, I would like to thank Dr. Melanie Morgan. Thank you for everything you have done for me. I honestly do not think I can ever thank you enough for all you have done. I appreciate you more than you will ever know. Dr. Jen Hall. Thank you for always having your door open and for your constant support, and for being the older sister I never had. Dr. DeMaria. Thank you for being an amazing teacher, and one I aim to be. I enjoyed the classes I had with you, and one that guided this dissertation! Shauna Stapleton. Thank you for answering all of my questions and for always being so approachable. Pam Deutsch. Thank you for being someone I can walk across the hall and talk to whenever about anything, and for being like an aunt to me. Jill Dyson. Thank you for always making me laugh and someone I can go to and will tell me how it is! I will miss you dearly! Mary Roe. Thank you for telling me about the puppies you knew were for sale and for giving me one of my best friends, Meeko. I would also like to thank all the other faculty and staff within the Brian Lamb School of Communication and the Department of Public Health at Purdue University for their guidance throughout these years.

Succeeding, I would like to thank my colleagues. Dr. Meghana Rawat. I honestly don’t know where to begin. You are without a doubt my work best friend and I would not have been able to get through all of these years without you. Thank you for your patience, support, encouragement, and friendship. Kirstin Dolick. Thank you for always answering my questions,

and for always being there. I would not have been able to get through this program with you and Meghana. Nikole Miller. Thank you for all of your support during our MPH program! I am looking forward to being in the same state as you are again! Dr. Tanisha Watkins. Thank you for the opportunity to do research with you and for being so kind, determined and empathetic. I would like to thank all of my other colleagues for their constant support and encouragement throughout this time. I wish you all the best of luck!

Following, I would like to thank my family. Mom. Thank you for always answering the phone when I needed to talk and for your constant faith, encouragement, support, and love. I would not have been able to get through this program without you! I cherish you! Dad. Thank you for always being there! I love you so much and appreciate you! Alison. Thank you for being the best younger sister I could ever ask for and for your understanding during this time. Tom. Thank you for all you have done for me during this process! I would also like to thank my late Papa, for his continuous love and support. Lastly, I would like to thank the rest of my family for their love, support, encouragement and guidance.

Subsequent, I would like to thank my friends, outside of academia. First, I would like to thank my ex, Franky. Thank you for having a shoulder for me to cry on, and for being there in times of need. Next, Liz, Sam, Anna, Sam, Taylor, Chelsea, and MK. Thank you all so much for being so understanding of my schedule, for always being so encouraging, for constantly checking in, for bringing me out of academia when need be, and for being loyal for many years. I could not have done this without you all.

Lastly, I would like to thank the movies, TV shows, and music that got me through these last few years. The movies I would like to thank consist of the *Harry Potter* series, *The Wave*, *Midway*, and the *Halloween* series. The TV shows consist of *Schitt's Creek*, *Friends*, *The Good Place*, *Downton Abbey*, and *Queer Eye*. The music I would like to thank consist of *The Chainsmokers*, *Thomas Rhett, Kelsea Ballerini, Taylor Swift,* and the *Goo Goo Dolls.*

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Listening (Janusik, 2002; Miller, 2018; Wolvin & Coakley, 1996) and eating disorders (EDs; National Centre for Eating Disorders (NCFED), 2018) are often not taught within schools, especially among adolescents. To address this, a school-based brief motivational interviewing (MI) intervention on listening when talking about EDs was created, implemented, and evaluated among adolescents (n = 260) from two middle schools within the Midwestern part of the United States. Specifically, School 1 (n = 100), and School 2 (n = 160) and three teachers (i.e., Teacher 1, Teacher 2, Teacher 3) allowed the researcher to present and collect data. In other words, three total teachers between the two schools, and one teacher, Teacher 1 (n = 100), was from School 1, and the other two teachers, Teacher 2 (n = 120) and Teacher 3 (n = 40) were from School 2. Participants were randomly placed into either the 1) the EDs listening intervention (education-plus) with an MI component (n = 6 classes) or 2) an education-plus Q&A intervention (n = 7 classes). All the participants were involved in the guest lecture and the pre-test and post-test survey, but data was only saved and analyzed from participants that had guardians/parents who consented (n = 75). The methodology for this dissertation project was a 2 (pre/post, unmatched) X 2 (condition) subject's design. This dissertation project had two independent variables: (1) experimental condition (e.g., education plus MI and education plus Q&A), and (2) time (e.g., pre and post). This dissertation project had five dependent variables: (1) knowledge of listening, (2) knowledge of EDs, (3) listening self-efficacy, (4) knowledge of OARS, and (5) knowledge of the righting reflex. This dissertation project also had the random factor of schools (e.g., School 1 (A) and School 2 (B), and the fixed factor of gender identity (e.g., male and female). The results revealed a promise of efficacy and increased knowledge regarding EDs and aspects of listening, specifically through MI (e.g., OARS). Other areas of knowledge improved but not significantly. In other words, there were no significant differences in knowledge gains between MI and Q&A, but MI compared to Q&A showed a more extensive influence on self-efficacy. The main limitation of this study was the limited guardian/parental consent, resulting in a small sample size.

CHAPTER 1. INTRODUCTION

This dissertation project aimed to consider the efficacy of an intervention that focused on listening during disclosure of eating disorders (EDs) within the population of adolescents. Specifically, the goal of this dissertation was to provide adolescents with information about the listening process during the disclosure of EDs. Communication around disclosure of EDs needs to be considered more often in disciplinary conversations because EDs are a public health concern (Austin, 2012; Austin & Sonneville, 2013). "We need public health professionals to pull up a chair" (Austin, 2012, p. 5) and be involved in EDs prevention interventions, and these professionals need training (Austin & Sonneville, 2013). Communication "allow[s] people to create and maintain interpersonal relationships; employers in all sectors seek employees with strong communication skills, and society needs effective communicators to support productive civic activity in communities" (NATCOM, 2020, para. 5). Levine (2017) studied communication challenges within EDs and emphasized the need to help individuals battling EDs effectively express themselves. Active listening may be a useful communication tool to assist those with EDs who may otherwise "…use their bodies and symptoms to let people know something is wrong" (Levine, 2017, p. 254). If individuals with EDs believe others will listen to what they are saying, it may help them use words rather than injuring their bodies.

Listening research supports this assertion. Fedesco (2015) discussed how if a speaker believes the other will listen, it tends to result in the speaker feeling supported, which can further result in the speaker being more willing to communicate, supported by Trees (2000). Additionally, listening is a skill that can predict patient satisfaction (Wanzer, Booth-Butterfied & Gruber, 2004), and being heard leads to increased adherence to medical professionals' recommendations (Shafran-Tikva & Kluger, 2018). Being listened to can also impact individuals' identities and by helping individuals believe they are being heard and understood. It can help them better realize their identities and adjust those aspects of their identities that are negative (e.g., EDs) and embrace those that are positive (e.g., sexual identity) (Seltzer, 2017). As Selzer (2017) stated, "it may well be that feeling understood is a prerequisite for our other desires to be satisfyingly fulfilled" (para. 2), such as one's identity, belonging, and relationships (Seltzer, 2017). The following story from NEDA's *Marginalized Voices Project* was written by

an individual struggling with EDs and their sexual identity. A general individual may recognize the intersections of these identities (emphasis added):

> There was someone inside of me who needed to be seen and **heard**, and **no one was listening**. My eating disorder was about gaining a voice. When I was first admitted into inpatient care, I thought that I had hit the jackpot. It sucked, and I was terrified, but I had seen movies about psych wards, and part of me felt hopeful. I envisioned my family and friends finally coming together, **listening** to me, and working with me. I thought that I would come out with a profound sense of self; I thought this was the beginning of a new life (NEDA, 2018).

Individuals suffering from EDs need to perceive that they are being heard and listened to. In the following example, an individual shared their experience with anorexia nervosa and what they think needs to be changed (emphasis added):

> I first went to my GP when I recognised I was having issues with food and exercise addiction. I was told my BMI wasn't low enough for me to be suffering with an eating disorder, which led me to being misdiagnosed and becoming very physically and mentally ill. If I had been correctly treated and **listened** to by someone who understood anorexia is a mental health issue and not a physical weight, perhaps me becoming so unwell could have been prevented (Beat Eating Disorders, 2018a).

And in another example, an individual created a poem that conveyed their experience with EDs. One section of the poem highlights the need for better listening (emphasis added): "Who can I trust and who will **listen** if I tell, Perhaps I should just cease to be" (Beat Eating Disorders, 2018b).

In the United States alone, 11 million individuals (10 million women and 1 million men) are struggling with EDs (e.g., binge eating disorder (BED), anorexia nervosa (AN), bulimia nervosa (BN), orthorexia, and other specified feeding or eating disorders (OSFED)/eating disorder not otherwise specified (EDNOS)), putting these individuals at high risk for problems such as heart failure, sleep apnea, seizures, limited menstruation, osteoporosis, type 2 diabetes, kidney failure, and anemia (Eating Disorder Hope, 2020; Fairburn & Harrison, 2003; NEDA, 2019a). Of all mental illnesses, individuals with EDs have one of the highest death rates. There is

a 10% mortality rate among those with AN (Arcelus et al., 2011; NEDA, 2019b). Suicide among those with AN is commonly the cause of death (i.e., 1 in 5) (Papadopoulos et al., 2009; NEDA, 2019b). Only one in 10 individuals with an EDs obtains help (Farrar, 2014). Because so many are negatively impacted by EDs, listening within this context needs to be further explored. There is a space in the literature regarding relevant communication interventions for EDs. Particularly listening regarding EDs, specifically after disclosing an EDs, especially among adolescents (i.e., 10-19 years of age; WHO, 2021). Brief disclosure interventions that utilize Motivational Interviewing (MI) are "a crucial area where communication interventions can have a significant impact, one that should receive continued attention" (Greene et al., 2013, p. 155).

Disclosure of EDs may be avoided due to stigma and judgment surrounding EDs, which can, in turn, hinder individuals with EDs from entering treatment (Dimitropoulos, 2008; Evans & Wertheim, 1998; Moses, 2010; Pettersen et al., 2008). The close relationships of those with EDs may also be affected because of stress, guilt, anxiety, anger, and denial (Gilbert et al., 2000). On the other hand, disclosure can be beneficial if perceived as cathartic, supportive, and transparent (Derlega et al., 2008; Steuber & Solomon, 2011). Unhealthy eating and other risk factors and symptoms decreased when intervention programs increased efficacy and support from peers and friends (Kass et al., 2014). Thus, it is vital that individuals suffering from EDs disclose and that others prompt disclosure from those they believe to be struggling with EDs because it may encourage these individuals to seek help, including treatment (Gilbert et al., 2012; NEDC, 2015). Additionally, schools should promote a positive eating and body environment and provide information to students about helping peers struggling with EDs (NCFED, 2018). If adolescents understand how to listen during the disclosure of EDs, more effective support may be provided.

This dissertation project aimed to assess the effectiveness of a listening during the disclosure of an EDs intervention conducted in an adolescent's health class. The intervention was designed to increase the knowledge and efficacy of adolescents learning to listen more effectively during the disclosure of EDs while offering those struggling with EDs an empathetic environment. Adolescent students (10-19 years of age) were the focus of this study because EDs tend to begin in this age range (Currin et al., 2005; Treasure et al., 2011). Listening during the disclosure of EDs was the context of interest for this study both because listening during EDs disclosure is crucial and schools rarely teach listening skills (Janusik, 2002; Miller, 2018; Wolvin & Coakley, 1996). An intervention for adolescent students to improve listening during

EDs disclosure was designed and evaluated, and a detailed plan/script (Appendix A). Motivational interviewing, specifically listening within MI (Miller & Rollnick, 2013), informed the development of the listening intervention.

This dissertation is organized into several chapters. In addition to the Introduction, Chapter 1 discusses the significance of listening during the disclosure of EDs and a review of relevant literature on the topic. Chapter 1 also includes the theoretical perspective, Carl Rogers' Person-Centered Approach, and Motivational Interviewing, which guided the research questions (RQs) and methodology. Chapter 2 presents the methodological process to address the RQs including the participants, recruitment, procedures, objectives, processes, and length. Chapter 3 discusses the results of this dissertation project, including the analyses used to answer the RQs, and the figures and tables that illustrate the results. Chapter 4 presents the discussion of the results of this dissertation, including overall findings, theoretical implications, practical implications, limitations, future research, and the conclusion.

Statement of the Problem

Individuals with EDs have some of the highest mortality rates compared to individuals with other mental illnesses. It is estimated that 11 million individuals suffer daily from EDs (Eating Disorder Hope, 2020), including both sexes (i.e., 20:10 women to men), genders, ethnicities, sexual orientations, races, and ages (NEDA, 2019b). EDs impact many others through knowing someone with an EDs (i.e., about half of Americans; EDC, n.d.). Being listened to can improve the life of an individual suffering from EDs. Thus, this dissertation project aimed to help adolescents better listen to their peers during the disclosure of EDs.

Proposed Solution

This dissertation project proposed a communication solution to address EDs among adolescents. Specifically, an educational intervention that informs adolescents about listening, EDs, and motivational interviewing. The intervention goals are to increase adolescents' knowledge and efficacy about listening and EDs through a brief motivational intervention. In the following sections of the literature review, EDs (i.e., BED, AN, BN, and OSFED/ EDNOS), and EDs among adolescents, are discussed.

Eating Disorders

Many people are not aware of the severity of EDs, and many believe it is a "fad" or a choice that individuals make instead of an illness they struggle to control and can die from (NEDA, 2019a). These beliefs and assumptions by others may lead to individuals suffering from EDs to not seek help. Merely one of 10 individuals with EDs obtains treatment, and only about half fully recover (Farrar, 2014; Löwe et al., 2001; Treasure et al., 2011). Of all mental illnesses, individuals with EDs have the highest death rates, and one individual passes away to EDs every 62 minutes (ANAD, 2019; Smink et al., 2012; NEDC, 2015). Recent research (post-dissertation intervention) has found that every 52 minutes, someone passes away due to EDs (ANAD, 2021; Harvard T.H. Chan: School of Public Health, 2021). Individuals with EDs have a 12 times greater risk of dying than those who do not have EDs (NEDC, 2015). Treatments are available, but few people proceed to treatment (Farrar, 2014; Hoek & van Hoeken, 2003). Those who struggle with EDs (especially AN and BN) may be ambivalent about treatment (Miller & Rollnick, 2013; Schmidt & Treasure, 2006). Ambivalence can occur among those with EDs because they feel a need to maintain the disorder (e.g., control) even though they may realize how much of a burden it is, resulting in little desire for change (Casasnovas et al., 2007; Hötzel et al., 2013; Miller & Rollnick, 2013; Serpell & Treasure, 2002; Treasure et al., 1999; Waller, 2012). For example, Kelli discussed in a blog post how difficult it was for her to change because the EDs was her identity, “I so wanted to be free from the eating disorder, yet, at the same time, I was afraid to live without it. The eating disorder was sucking the life out of me. I needed to separate from it” (ERC, 2018, para. 4). Individuals who disclose their EDs to close others are more likely to seek treatment (Gilbert et al., 2012; NEDC, 2015). Therefore, it seemed plausible that by training those close to individuals with EDs to listen effectively, EDs disclosure may occur more often, followed by treatment.

There are a variety of risk factors (e.g., psychological, physical, social) for EDs. Psychological risk factors include perfectionism, the need to please others, low self-esteem, depression, anxiety, body dissatisfaction, and obsessive thoughts (Golden et al., 2016; Mitchison & Hay, 2014; Rohde et al., 2015). For example, a study on obsessive thoughts and EDs found that those with EDs had obsessive thoughts for many hours per day (i.e., 74% for 3+ hours; 42% for 8+ hours) (Polivy & Herman, 2002; Sunday et al., 1995). Many psychological risk factors are genetic (e.g., obsessive thoughts, perfectionism; Lyons & Ekern, 2017). Physical risk factors

include dieting, physical abuse, and sexual abuse (Golden et al., 2016; Mitchison & Hay, 2014). For example, a study followed young adults (i.e., 14-15 years old) for three years and found that the utmost significant predictor of EDs was dieting (Golden et al., 2016; Patton et al., 1999; Rohde et al., 2015). Social risk factors include meals, weight talk, weight teasing, participation in individual sports (e.g., dancing, gymnastics, wrestling), cultural idealizations (e.g., media), and influence of peers (Golden et al., 2016; Mitchison & Hay, 2014; Polivy & Herman, 2002). For example, the research found a decreased risk of EDs among preadolescents and adolescents if they participated in family dinners most days of the week because parents could monitor their eating behaviors (Golden et al., 2016; Haines et al., 2009; Neumark-Sztainer, 2009).

It is imperative to note that disordered eating (DE) is related to EDs and is also common (i.e., about 50% of individuals; Gottlieb, 2014). However, DE does not meet the specific EDs criteria per the DSM-5. The DSM-5 is a resource on mental health disorders developed by experts in the field to assist with "diagnoses, treatment, and research" (American Psychiatric Association, 2020, para. 1). DE consists of individuals being concerned about the appearance of their body and engaging in behaviors that are not healthy while eating (Kelty Mental Health Eating Disorders, 2020). Dieting and limiting access to some foods are common forms of DE (Kelty Mental Health Eating Disorders, 2020). DE behaviors are like common EDs (e.g., overexercising, lack of control, thoughts consumed by food and weight, vomiting, laxatives, experiencing negative emotions after eating; Kelty Mental Health Eating Disorders, 2020). Also, individuals with DE tend to report negative voices in their heads and view certain foods as good and bad foods rather than foods that fuel and fun foods (R. Tilt, personal communication, October 28, 2020). Therefore, individuals must know common symptoms and signs of DE because behaviors may develop into EDs, or if they go undetected, individuals will not obtain the help needed (Gottlieb, 2014).

Individuals can have a dangerous relationship with their food and body without having specific EDs. Orthorexia is an example of this. Orthorexia is the preoccupation with eating healthy but not necessarily with body image (NEDA, 2019c). This obsession with eating healthy causes more harm than benefit. Research on orthorexia is limited (NEDA, 2019c). Common symptoms of orthorexia include obsessing over nutrition labels and ingredients, removing types of food from the individual’s diet (e.g., carbs and sugar), preoccupation with the food and nutrition of others, and experiencing high anxiety when there are no healthy food options

(NEDA, 2019c). Individuals who suffer from orthorexia may be susceptible to malnutrition (NEDA, 2019c). Thus, EDs and DE consist of similar signs and symptoms that are important for everyone to know to help those who are struggling. However, the main distinction between EDs and DE includes 1) impact (i.e., in terms of daily life and relationships), 2) severity (i.e., in terms of medical implications), 3) frequency (i.e., in terms of how often certain behaviors occur) (R. Tilt, personal communication, December 16, 2020) Not only this, but EDs and DE also impact various and numerous individuals. The types of EDs, including BED, AN, BN, and OSFED/ EDNOS, are reviewed in the following sections.

Binge Eating Disorder

BED consists of an individual eating a considerable volume of food in a brief time until becoming physically uncomfortable (NEDA, 2019d). Individuals with BED may lack control over their food consumption and may not be hungry when they are eating (NEDA, 2019d). Individuals with BED may also consume food when alone, and they tend to feel shame, disgust, or depression after consumption (NEDA, 2019d). In the United States, BED is the most frequent EDs and is relatively new (NEDA, 2019d). BED behavior, on average, tends to last for at least three months, with binge eating occurring approximately one time per week (NEDA, 2019d). Importantly, those with BED may not be obese; they may be a healthy weight or any weight (NEDA, 2019d). Most telling, many of those wanting to lose weight tend to display BED symptoms, and 40% of those with BED are male (NEDA, 2019b; Westerberg & Waitz, 2013).

BED symptoms are categorized into (1) emotional/behavioral and (2) physical. The emotional/behavioral symptoms include consuming food in large volumes within a quick period, lacking control when bingeing, hiding food, avoiding interactions with friends and family, possessing low self-esteem, and dreads eating in public (NEDA, 2019d). Physical symptoms may consist of a continually changing body weight, stomach issues, constipation, and difficulty focusing (NEDA, 2019d).

Anorexia Nervosa

AN is characterized by reduced weight, food constraint, dread of weight increase, and a disparaging view of one's body (NEDA, 2019e). Individuals with AN may also workout

excessively or take laxatives to reduce their weight (NEDA, 2019e). There are different types of AN, such as atypical anorexia, which meets an AN criterion, but the individual is not underweight. Individuals need to meet the DSM-5 standards to have AN, which consists of being terrified to gain weight while underweight, not being aware of the severity of their condition/being underweight, and decreased energy (NEDA, 2019e). To date, research does not indicate a significant difference between atypical AN and AN in terms of psychological and health impacts (NEDA, 2019e). Notably, individuals of any size can have AN. However, due to cultural bias, those who do not appear to be underweight are often overlooked (NEDA, 2019e). A small yet significant percentage of young women (0.9%) and men (0.3%) suffer from AN at some point in their lifetime (Caceres, 2020). Most telling, young adults (i.e., 15-24 years of age) that have AN, compared to others their age, are at a ten times greater threat of dying (Fichter & Quadflieg, 2016; NEDA, 2019b; Smink et al., 2012). Males with AN have a greater risk of death because they do not seek help due to the stigma surrounding males with EDs (Mond et al., 2014; NEDA, 2019b).

AN symptoms are categorized into (1) emotional/behavioral and (2) physical. The emotional/behavioral symptoms include losing a large amount of weight and obsession with dieting, calories, weight, food, and control (NEDA, 2019e). Individuals may also avoid eating when experiencing hunger pains, certain foods, meals, and hanging out with friends and family (NEDA, 2019e). People may discuss how they are "fat" and need to burn calories and may have food rituals (e.g., overly chewing food) (NEDA, 2019e). The physical symptoms consist of being cold, loss of period, irregular periods, dizziness, difficulty sleeping, anemia, lower heart rate, deficient hormone and thyroid levels, weakness, and a damaged immune system (NEDA, 2019e).

Bulimia Nervosa

BN consists of consuming large sums of food quickly following that consumption with purging (NEDA, 2019f). Those with BN may also utilize laxatives, fasting, exercise, or other medical forms to discard enormous amounts of consumed food (NEDA, 2019f). BN behavior, on average, tends to last for at least three months, with binge eating and purging occurring approximately one time per week (NEDA, 2019f). Many young women (1.5%) and men (0.5%) suffer from BN at some point in their lifetime (Caceres, 2020).

Symptoms of BN are categorized into (1) emotional/behavioral, (2) physical, (3) other conditions. The emotional/behavioral symptoms comprise of eating significant quantities of food in a brief time and going to the restroom immediately following meals (NEDA, 2019f). Individuals with BN may drink large sums of water or not consume beverages with calories (NEDA, 2019f). These individuals may have new diets or food rituals, severe emotional mood swings, avoid eating in public and avoid interacting with friends (NEDA, 2019f). Individuals may use gum, mints, and mouthwash excessively (NEDA, 2019f). The physical symptoms include calluses on hands/knuckles, discolored teeth, swollen cheeks, thinning hair, weak muscles, yellow skin, dry/brittle nails, and dry skin (NEDA, 2019f). Individuals with BN may be more involved in risky behaviors (e.g., stealing, substance abuse, unprotected sex) (NEDA, 2019f).

Other Specified Feeding or Eating Disorders (OSFED)/ Eating Disorder Not Otherwise Specified (EDNOS)

OSFED was previously known as Eating Disorder Not Otherwise Specified. EDs that meet OSFED criteria do not necessarily meet the requirements of BED, AN, BN, or orthorexia (NEDA, 2019g). OSFED has been shown to affect a significant number of those who seek treatment (i.e., 40-60%) and especially those who do not (i.e., 75%) (Rollin, n.d.). One example of OSFED is atypical anorexia nervosa, which occurs when an individual does not lose substantial weight and tends to have "normal" weight (NEDA, 2019g). Another example of OSFED involves BED of limited duration and frequency, which lasts less than three months, and BN of limited time and frequency, during which binge eating lasts less than three months (NEDA, 2019g). Other examples of OSFED include purging disorder, which involves throwing up to control weight, but the individual does not consume large amounts of food (NEDA, 2019g), and night eating syndrome, which consists of consuming food late at night or in large quantities once one wakes up or after dinner (NEDA, 2019g). Symptoms of OSFED are similar to all common EDs (i.e., dizziness, bloating, brittle nails, swelling, dreads eating, and an obsession with food and body; NEDA, 2019g). EDs among adolescents is discussed within the next section.

Eating Disorders Among Adolescents

Although EDs can affect anyone, adolescents (i.e., 10-19 years of age) are predominantly impacted (Currin et al., 2005; Treasure et al., 2011). For example, a study monitored adolescent girls ($N = 496$) for approximately eight years and found 5.2% appeared to have symptoms of AN, BN, and BED by the age of 20, and about 13.2% suffered from EDs without specific symptoms of EDs (NEDA, 2019b; Stice et al., 2009). Similarly, a study on the incidence of EDs over ten years in the United Kingdom found that OSFED increased while AN and BN stayed consistent (NEDA, 2019b; Micali et al., 2013). Furthermore, Micali et al. (2013) found that an EDs diagnosis was most common among adolescent girls who were 15-19 years of age and boys who were 10-14 years of age. NEDA (2019b) recently reported that EDs appear in girls and boys at a younger age. For example, EDs are emerging in individuals at the young ages of 5-12 years (Golden et al., 2016; Madden et al., 2009; Nicholls et al., 2011; Pinhas et al., 2011).

All this may result from the prevalence of diet culture within our community and society (Rosenbloom, 2020). Specifically, dieting has become ingrained within our culture due to increased messages that encourage changing one's body to be smaller through physical fitness and decreased food consumption (Rosenbloom, 2020; Solmi et al., 2021). Research within the United Kingdom found that adolescents engage in more diet behaviors than previous generations (Solmi et al., 2021). Therefore, adolescents must be educated about EDs to help prevent and intervene in the development or progress of EDs behaviors. In other words, this dissertation project aimed to provide information regarding EDs (i.e., to educate) and the tools to listen adequately (i.e., to improve confidence surrounding listening). Hence, if they have a peer/friend who discloses EDs to them, they can listen appropriately and confidently. Similarly, this dissertation project aimed to educate adolescents about the influence of diet culture on EDs and how this intervention, by increasing adolescents' knowledge and efficacy, may help change the current culture for generations to come.

Individuals battling EDs also have a difficult time in their close relationships. Specifically, they struggle with conveying their feelings and needs, work hard to make others happy, avoid conflict, and feel socially isolated (Ali et al., 2017; ANRED, 2019). Also, individuals may make excuses for eating, struggle to eat with others, and disconnect themselves from events and those individuals who are close to them (NEDA, 2019d; NEDA, 2019e; NEDA, 2019f). Individuals with EDs also tend to view themselves negatively and fear how others

perceive them, resulting in evading social situations (Carcieri, 2015; Dodd, Smith, & Bodell, 2014; Evans & Wertheim, 1998). Many activities families engage in, such as going out for dinner, are food-centric, resulting in individuals with EDs often isolating themselves from their families. Gilbert, Shaw, and Notar (2000) examined the relationship obstacles of parents who have a child with EDs experience and found daughters removed themselves from the family.

Additionally, those struggling with EDs may lack communication skills, causing them to distance themselves from close others. Lattimore, Wagner, and Gowers (2000) examined the nature of conflict among daughters with AN and their mothers and found daughters with AN had more destructive communication towards their mothers. However, mothers would then reciprocate this destructive communication. Communication among daughters with EDs and their mothers was impaired, decreased, and problematic compared to matched controls (Vidovic', Juresa, Begovac, Mahnik, & Tocilj, 2005). The lack of communication skills those with EDs experience may result from their family interactions before their EDs. These problematic interactions may increase or decrease after families discover that their child has EDs. An intervention that provides information to adolescents about EDs and effective listening skills may increase their efficacy in communicating with someone during the disclosure of an EDs. In the next section, listening is discussed, emphasizing active empathic listening, listening during disclosure, and teaching listening.

Listening

"Listening is an essential communication tool" (Skeen et al., 2016, p. 5). According to Trenholm and Jensen (2013), listening is "the process of receiving, constructing meaning from, and responding to spoken and nonverbal messages" (p. 109). In other words, "we speak while we listen and we listen while we speak" (Berger, 2011, p. 108). There are various types of listening (e.g., discriminatory, appreciative, comprehensive, evaluative, empathic, and problem-focused; Trenholm & Jensen, 2013). Listening is an area, especially in communication, and more significantly in interpersonal communication, that is understudied (Berger, 2011). The literature on disclosure tends not to include listening, even though it may be considered vital in the process of disclosure. However, within Motivational Interviewing (MI), there is an aspect that focuses on listening and is known by the acronym OARS, which stands for *open questioning, affirming, reflecting,* and *summarizing* (Miller & Rollnick, 2013). Nichols in Beard and Bodie (2014)

similarly suggested, "… listeners [should] make mental summaries and anticipate next points as they listen-engaging in a kind of meta-cognition that would improve listening practice" (p. 216). MI tends to encompass an empathic type of listening because it encourages the listener to let the other person discuss their issues without the recipient providing advice (Miller & Rollnick, 2013; Trenholm & Jensen, 2013).

Listening was the main topic within this intervention because it is often not included in training on effective communication and is rarely taught in schools (Berger, 2011; Janusik, 2002; Miller, 2018; Wolvin & Coakley, 1996). Beard and Bodie (2014) mentioned that Ralph Nichols argued that "listening should be taught, not presumed in the communication process" (p. 215). Further, they suggested that "…research in new contexts of listening will only enhance our understanding of the complexities of the communication process" (Beard & Bodie, 2014, p. 220). The development and evaluation of a listening intervention within the context of adolescent disclosure of EDs can expand our understanding of the role of communication in health-oriented contexts. Besides, gaining knowledge about and practicing listening can have profound effects on an individual's personal and professional relationships (Skeen et al., 2016; Worthington & Bodie, 2018) because "to 'be heard' and to 'be listened to' are important from the cradle to the grave" (Bodie, 2013, p. 81). Similarly, "humans need not only to be loved but also to be shown they are loved" (Floyd, 2014, p. 2), and listening can demonstrate that love to another. Specifically, active-empathic listening is a way to connect actively and emotionally with another while in conversation and listening. Active-empathic listening is discussed in the next section.

Active-Empathic Listening (AEL)

AEL refers to "the active and emotional involvement of a listener during a given interaction-an involvement that is conscious on the part of the listener but is also perceived by the speaker" (Bodie, 2011, p. 278). Within AEL, the listener can easily recall what the speaker has discussed, ask questions regarding content during relevant times, and accurately paraphrase what the speaker said while including critical nonverbal cues (e.g., eye contact, head nods; Bodie, 2011). AEL is consistent with OARS because both consist of asking questions, affirming the other, demonstrating reflections, and summarizing what was heard (Miller & Rollnick, 2013). Bodie (2011) discussed how vital empathy is throughout the entire listening process and not just the response because it shows others how invested the listener is in the information

communicated. AEL is like supportive listening, which focuses on emotional cues and "genuinely engag[ing] with others" (Jones, 2011, p. 98).

Bodie (2011) argued that for AEL to occur, an individual needs to address specific parts of the listening process: sensing (i.e., “actively involved” while another is talking, p. 279), processing (i.e., remembering what has been discussed, asking for an explanation when needed, and combines information learned into a summary), responding (i.e., paraphrasing, enquiring questions, utilizing non-verbals), and the listener’s perspective needs to be considered in addition to the speaker’s. Therefore, both individuals (e.g., listener and speaker) engaging in interpersonal communication need to use their voice to strengthen their communication and relationship. AEL includes interaction involvement, which is how engaged an individual is during a conversation, both mentally and physically (Bodie, 2011). The constructs of interaction involvement are attentiveness (i.e., the ability to focus while interacting with an individual), perceptiveness (i.e., understanding the importance of the interaction for the individual one is interacting with), and responsiveness (i.e., being responsive to statements by another) (Bodie, 2011). AEL also includes conversational sensitivity, which is the "attention to and awareness of underlying meanings in conversations" and is made up of eight aspects: "detecting meanings” (i.e., recognize from conversations with individuals many and in-depth meanings), “conversational memory,” (i.e., skill to recollect information from discussions), “conversational alternatives” (i.e., talent to create a variety of strategies when it comes to conversations), “conversational imagination” (i.e., visualizing discussions), “conversational enjoyment” (i.e., enjoyment in engaging or listening to discussions), “interpretation” (i.e., skill to recognize meanings within conversations), “perceiving affinity” (i.e., skill to recognize from conversations those who like one another), and “perceiving power” (i.e., talent to identify issues of power within conversations) (Bodie, 2011, pp. 280-281; Daly, Vangelisti, & Daughton, 1987).

AEL includes how an individual can "experience and exhibit empathy while listening" (Bodie, 2011, p. 281). Bodie (2011) found that the most vital component of effective listening was AEL. Empathic listening uses nonverbal immediacy (e.g., eye contact, open body posture, smiling, warm vocal tones) (Burgoon, Guerrero, & Floyd, 2010; Floyd, 2014; Jones & Guerrero, 2001; Roberts & Strayer, 1996) to show others they are essential and heard. Therefore, creating an environment that makes the disclosure process more comfortable increases individuals' likelihood of discussing relevant issues and possibly leading them to obtain help.

Another type of listening which is similar to AEL and OARS is non-judgmental listening. Non-judgmental "does not mean that we agree with or condone what a person is saying, only that we are willing to step out of ourselves long enough to see how the person views what he or she is saying" (Collins & O'Rourke, 2008, p.11). Non-judgmental listening is vital for empathy because individuals cannot empathize with others if they judge them (Collins & O'Rourke, 2008). Mental Health First Aid's (2019) website offers some tips on using non-judgmental listening. To begin, they recommend individuals need to be calm, cool, and collected (i.e., "right frame of mind" (Mental Health First Aid, para. 3) while they are engaged in non-judgmental listening. If an individual is not calm, cool, and collected, it could result in individuals perceiving the listening to be judgmental rather than non-judgmental and could impact the conversation. Subsequently, they indicated that the listener should acknowledge their feelings, values, and experiences (i.e., be accepting, genuine, and have empathy; Mental Health First Aid, 2019) because that can help an individual feel valued and respected, which can result in them not feeling judged and being willing to engage in further conversations. Next, they encouraged the utilization of verbal communication to demonstrate listening (e.g., nonverbal cues, asking questions, vocal tone, giving people time to communicate their feelings and thoughts; Mental Health First Aid, 2019); which can further promote a non-judgmental environment because the individuals are engaged, and time is being taken for the expression of emotions. Following this, they urged the listener to exhibit "positive body language" (e.g., eye contact that is comfortable, sitting down, and open posture; Mental Health First Aid, 2019, para. 6) because it can promote a non-judgmental environment and discussion may be encouraged. Lastly, they recommended a listener be aware of cultural differences (i.e., eye contact, personal space, verbal and nonverbal communication; Mental Health First Aid, 2019) because that can determine if an individual continues the discussion and indicates that the environment is non-judgmental. Listening research is relevant to this dissertation project because it serves as the foundation of AEL, which was adopted to teach OARS to adolescents. OARS within MI will be discussed next.

OARS

The acronym OARS stands for open questioning, affirming, reflecting, and summarizing (Miller & Rollnick, 2013). Asking open questions allows those being asked to think before they respond and is "like an open door" (Miller & Rollnick, 2013, p. 62) in that these types of

questions can be answered in a variety of ways and can allow a person to answer as much as they would like. Thus, it would not limit them to a yes or no answer and may result in obtaining more information. However, Miller (2018) suggested “not to ask three questions in a row" because it may seem like an interrogation (p. 22). Affirming means "to accentuate the positive," to "support and encourage," and to utilize empathy (Miller & Rollnick, 2013, p. 64). Affirmation decreases defensiveness and increases positivity, openness, and change. An affirmation should not start with the word "I" and should focus on the positive or the "glass-half-full" approach (Miller & Rollnick, 2013, p. 65). Reflecting reiterates what an individual means (Miller & Rollnick, 2013). Reflections should express understanding, help with clarifications, and establish relationships with others (Miller & Rollnick, 2013). Summaries gather reflections told by an individual (Miller & Rollnick, 2013). Summaries can involve collecting (i.e., a compilation of information), linking (i.e., reflection followed by connection to previous knowledge), and transitioning (i.e., the conclusion of or movement to another topic) (Miller & Rollnick, 2013). In other words, summaries gather many items and briefly repeat them (Miller & Rollnick, 2013). According to Miller and Rollnick (2013), OARS are “foundational tools for mutual understanding” (p. 62) and help guide and drive behavior change. From all the approaches to listening reviewed, OARS was selected because of its impact on creating “mutual understanding,” which may aid behavior change. According to MI, knowledge of OARS is critical to effective listening. Listening during disclosure is an important aspect of this intervention and will be discussed next.

Listening During Disclosure

Listening during the disclosure of a stigmatized health issue (e.g., EDs) can impact how a discloser handles their health issue (Becker-Blease & Freyd, 2006). Ineffective listening could affect whether individuals obtain help and influence whether they tell anyone else (Becker-Blease & Freyd, 2006). Although the listener may believe they are offering support, the discloser's perception may be that it is not a supportive interaction (Campbell et al., 2001; Foynes & Freyd, 2013). Foynes and Freyd (2011) evaluated the influence of skills training on disclosure of mistreatment and found the materials utilized within the skills training could influence the efficacy of listeners when it comes to reacting to the disclosure. Foynes and Freyd (2013) evaluated demanding life disclosure (supportive) responses and found interruption levels (e.g., verbal communication-moderate level), body posture (e.g., non-verbal communication-not

leaning backward), and relational health (e.g., how listeners provide support and how disclosers received support) indicated more positive responses from listeners of first-time disclosures of experiences that were demanding. In terms of relational health, the closer the relationship between the discloser and listener, the more forgiving they were about unsupportive behaviors. The more distant the relationship between the discloser and listener, the less tolerant they were of unsupportive behaviors (Foynes & Freyd, 2013)

More recently, Freyd (2021) discussed how vital listening is following disclosure and provided some listening tools, specifically within the context of trauma. These guidelines may also apply to other health contexts that may bring a different form of trauma into individuals' lives (e.g., EDs). To begin, avoid DARVO ("Deny, Attack, and Reverse Victim and Offender"; Freyd, 2021, para. 12), which includes not denying what is occurring, not attacking the person disclosing, and not "revers[ing] the roles of victim and offender" (Freyd, 2021, para., 12)—in other words, not putting the person accused of the wrongdoing in the position of the person impacted. It is imperative to preserve and regard the individual's independence and assets, validate the individual's feelings, attend to the suffering individual's needs, and engage in compassionate listening.

Compassionate listening involves attentive body language with secure and supportive verbal communication (Freyd, 2021). Attentive body language consists of no irrelevant facial expressions, leaning forward, nodding, and consistent eye contact (Freyd, 2021). Secure verbal communication consists of not switching the conversation topic, allowing silence, saying "hmmm" and "uh-huh," reflecting emotions, and asking questions (Freyd, 2021). Supportive verbal communication consists of not diminishing experiences, not judging or assessing how the individuals act, not discussing personal experiences, and not advising unless asked, but validating emotions, stating strengths, and concentrating on experiences (Freyd, 2021). These recommendations support MI when it comes to being a good listener by practicing OARS and avoiding the righting reflex, which consists of directing someone to a specific behavior change (Miller & Rollnick, 2013). Research needs to continue considering listening during disclosure, so individuals can adequately prepare to provide the best possible support via listening. Based on the established importance of effective listening, avoiding the righting reflex is discussed next.

Righting Reflex

The righting reflex is based on the "desire to fix what seems wrong with people and to set them promptly on a better course, relying in particular on directing" (Miller & Rollnick, 2013, p. 6). According to MI, listeners should avoid suggesting new ways to do things or conveying their experiences because every individual's situation is different. When operating from the righting reflex, the listener tends to take a more directing style of communication. A directing style of communication consists of "providing information, instruction and advice" (Miller & Rollnick, 2013, p. 4). Examples of verbs used in a directing style are "administer," "authorize," "rule," and "run" (Miller & Rollnick, 2013, p. 5). These verbs indicate that the listener controls the situation instead of working together with the individual.

An example of the righting reflex with a directing style is the statement, "I need to just tell them clearly what to do" (Miller & Rollick, 2013, pp. 137-138). This listening approach can hinder the interaction because the individual being listened to may decide to ignore the listener due to not being heard. As a result, these individuals may not feel motivated to engage in behavior change if they do not feel involved in the listening process. To effectively listen, listeners need to avoid the righting reflex and a directing style. In *Quiet: The Power of Introverts in a World That Can't Stop Talking*, Susan Cain (2012) in her book puts it this way, "we have two ears and one mouth, and we should use them proportionally" (p. 240). Individuals need to remember to listen more than they talk by recognizing that we were physically designed this way. According to MI, avoiding the righting reflex is critical to effective listening and was included in the intervention. Based on the established importance of effective listening, teaching listening is addressed within the next section.

Teaching Listening

Listening is rarely taught in schools (Janusik, 2002; Miller, 2018; Wolvin & Coakley, 1996). Reasons for this include teachers not being trained to teach listening, teachers may not value listening enough to spend time teaching listening, and lack of resources (Janusik, 2002; Steil, 1984). Information about teaching listening is scarce, and what little information there is needs to be improved. As Steven Covey argued, "most people do not listen with the intent to understand; they listen with the intent to reply" (Miller, 2018, p. 7). When it comes to teaching

listening, individuals should focus on a few aspects, flexibility (i.e., the field is evolving; Janusik, 2002), contextually recognizing competencies (i.e., focus on intention and the process; Wolvin, 1989; Janusik, 2002), and energetically discussing perception (Bentley, 1997; Janusik, 2002). Evaluating listening knowledge and self-efficacy in the application of listening knowledge were the goals of this study. In their book on communication targeted toward teens/adolescents, Skeen et al. (2016) discussed ways to improve listening. They begin by emphasizing the importance of differentiating between pseudo listening and listening. Listening involves understanding without incorporating an individual's input, genuinely appreciating the information the person is telling you, learning about another individual (e.g., their opinions, feelings, thoughts), and helping another individual by offering support (Skeen et al., 2016). Pseudo listening consists of only "half-listening" (Skeen et al., 2016, p. 6), which implies that an individual is not fully present when another is communicating with them. Therefore, they are missing out on information that may be important.

Skeen et al. (2016) also forwarded the notion of "blocks" to listening. Similarly, Gordon (1970) discussed roadblocks to listening, which are more well-known within MI. For the intervention, these blocks to listening were paired down due to time constraints. The blocks to listening included in the intervention were comparing, mind-reading, rehearsing, filtering, judging, and daydreaming. All the previously mentioned blocks to listening were included in the fact sheet (Appendix B) provided to students and are reviewed here. First, comparing, which is like Gordon's "giving advice, making suggestions, or providing solutions" (Miller & Rollnick, 2013, p. 49), decreases listening because the individual is focused on comparing what a person is saying to one's own experience instead of listening intently to what the person is saying (Skeen et al., 2016). Second, mind-reading, which is like Gordon's "interpreting or analyzing" (Miller & Rollnick, 2013, p. 49), refers to an individual imagining something one may say instead of listening to what the person is saying (Skeen et al., 2016). Third, rehearsing involves an individual practicing what they would say next and could result in missing information (Skeen et al., 2016). Fourth, filtering, which is like Gordon's "questioning or probing" (Miller & Rollnick, 2013, p. 49), can lead to selective listening because an individual is choosing what they want to listen to instead of listening to everything said (Skeen et al., 2016). Fifth, judging, which is like Gordon's "disagreeing, judging, criticizing, or blaming" (Miller & Rollnick, 2013, p. 49), consists of an individual dismissing what the other is saying, which can result in not hearing

what is being said (Skeen et al., 2016). Sixth, daydreaming results in the individual not being present and paying attention to what is being said (Skeen et al., 2016). Being aware of the blocks to listening may help adolescents avoid these blocks while listening to others.

Skeen et al. (2016) also discussed how adolescents could become better listeners through active listening, empathy, openness, and awareness. Specifically, in terms of active listening, they presented three steps. First, paraphrase the information heard to ensure accuracy. Paraphrasing what has been heard may begin with phrases such as, "So in other words…;" "What I hear you saying is…;" and "So you're saying…" (Skeen et al., 2016, p. 14). Second, clarify the information heard to understand better what the individual is trying to convey. Clarification demonstrates listening and may also encourage more in-depth conversation (Skeen et al., 2016). Third, engage in feedback, which involves discussing thoughts and feelings about the information heard and thinking about how that information can be applied in the future (Skeen et al., 2016). Also, exhibiting empathy during listening has been shown to increase the strength of relationships and self-confidence (Skeen et al., 2016). Openness during listening is crucial because it suggests that an individual is willing to hear all viewpoints and perspectives, expanding an individual's knowledge and helping them see new ways and approaches to life experiences (Skeen et al., 2016). Awareness during listening is crucial because it allows individuals to notice things they may not have previously observed (Skeen et al., 2016).

In Miller's (2018) book on effective listening, listening with empathic understanding is emphasized. Miller is one of the developers of MI, so this book applies aspects of MI. The end of many chapters includes a "try it" section designed to help readers use the listening element discussed within that chapter. For example, there are activities that readers are encouraged to do to help understand and overcome Gordon's (1970) roadblocks to listening (Miller, 2018). This activity consists of a role play. One person talks about something they would like to change about themselves, and the other uses different roadblocks throughout the conversation. The actors switch roles until time elapses. In another activity, readers are encouraged to understand that nonverbal listening consists of pairing individuals and having them take turns talking about something (e.g., favorite vacation). At the same time, the other listens nonverbally (e.g., eye contact, posture). Another activity consists of asking questions. In small groups (i.e., 3-4 individuals), individuals take turns being the leader and saying the statement, "One thing that you should know about me is that I am___" (Miller, 2018, p. 24). The leader should include an

adjective to complete the sentence. Like the game "20 questions," the listeners ask, through closed questions, what the speaker meant by that adjective, and the speaker can only respond with "yes" or "no." In a variation of this activity, Miller (2018) added a different role for the listeners, illustrating reflective listening. In this variation, listeners state reflections, restated sentences instead of asking "yes" or "no" questions, and the speaker answers openly.

Like the two previous activities, Miller (2018) offered another variation that helps an individual "dive deeper" into reflective listening. With a partner, individuals talk about themselves, frequently pausing to let the listener practice reflections. Reflections consist of restating what an individual just discussed (Miller, 2018). Miller (2018) further outlined how good reflective listening entails predicting what the speaker may also discuss, helps “continue the story”, and demonstrates to another that you care about them, helping prevent future conflict within relationships (pp. 33-34). Listeners should focus on reflections instead of questions, but they can ask an occasional open-ended question. Lastly, Miller (2018) recommended another activity that involves organizing individuals into pairs. One is the speaker who discusses something they have not decided yet or are ambivalent about (e.g., social issues, politics). The listener needs to utilize reflective listening but can only ask two questions, so they need to rely on reflections (Miller, 2018). These activities are designed to help teach listening and guided the development of the MI activity for this study (e.g., MI role-play). Next, the benefits of teaching listening are considered.

Benefits of Teaching Listening

Teaching adolescents how to be active listeners helps not only their interactions with those struggling with mental health issues (e.g., EDs) but can help them satisfy a basic human need of understanding others and being understood themselves (Beard & Bodie, 2014). Nichols in Beard and Bodie (2014) argued, "the best way to understand people is to listen to them" (p. 216). Therefore, teaching adolescents how to listen by being genuine, understanding, having positive regard, and being in the moment can create a climate that is equal and supportive in their personal and professional relationships (Floyd, 1985; Wolvin, 2010). Furthermore, supportive listeners were found to be non-judgmental, friendly, likable, optimistic, truthful, understanding, encouraging, and motivating (Bodie, Vickery, Gearhart, 2013). All these characteristics will promote success in an individual’s personal and professional life.

For instance, adolescents could be made aware that "listeners 'speak' even as they silently listen" (Berger, 2011, p. 105) via their nonverbal communication, and the impact this can have on their personal and professional lives could be explained. To begin, imagine an individual listening well by giving good eye contact and nodding while a friend was talking about their complicated, intimate relationship. In this situation, listening well can impact if the friend believes the listener cares about them and is there for them. Furthermore, with personal lives, listening well can increase how likely individuals are to trust you and increase the likelihood of gaining more friends (Skeen et al., 2016). Additionally, assume an individual listened well by giving good eye contact and nodding during a work presentation. Listening well in this way may impact the individual's relationship with their boss and co-workers by indicating that their colleagues are valued, and their work is appreciated. Moreover, within the professional context, listening well may help individuals achieve success faster because they listen to what is important to others and what others want (Skeen et al., 2016). By doing this, they also learn what makes those in their professional lives happy or upset (Skeen et al., 2016). Lastly, suppose an individual listened well by giving good eye contact and nodding while a friend talked about their EDs. In this case, listening well could indicate interest in what is being said and care for the friend, enhancing the friendship and increasing the possibility of seeking treatment. Now that the benefits of teaching listening have been discussed, the challenges to teaching listening are considered in the next section.

Challenges to Teaching Listening

There are a variety of challenges to teaching listening. One challenge is the lack of theory to guide the teaching of listening. Bodie (2009) suggested that this may be due to an absence of understanding of the importance of incorporating theory. Consequently, Bodie (2012) offered that "listening should, instead, be viewed as a theoretical term and allowed various meanings depending on the practical purpose pursued by an individual or team of scholars" (p. 10). Viewing listening as a theoretical concept may allow researchers to explore further the facets of effective listening, which could better inform teachers' lesson plans. For example, this dissertation project partially took up this challenge by utilizing what is known about effective listening and teaching it in a way that is designed to increase adolescents' knowledge of listening and their listening self-efficacy within the context of EDs.

A second challenge to teaching listening is that an individual has a choice; that is, an individual "chooses to listen (or to avoid it)" (Worthington & Bodie, 2018, p. 7). Therefore, it is imperative to teach listening to encourage engagement in effective listening while discouraging avoidance of effective listening. Now that the challenges to teaching listening have been discussed, the following section addressed the context of the intervention for this dissertation. In the following sections of the literature review, the Person-Centered Approach and Motivational Interviewing, and EDs and listening interventions are discussed.

Theoretical Perspective

The interpretivist paradigm along with Carl Rogers' Person-Centered Approach (PCA; Wosket, 2006), listening within Motivational Interviewing (MI) with an emphasis on OARS (i.e., open questioning, affirming, reflecting, and summarizing) and the righting reflex (i.e., directing someone to a specific behavior change) (Miller & Rollnick, 2013) guided the development of the intervention that was the focus of this dissertation project.

The interpretivist paradigm considers the reality of being subjective and utilizes understandings from various existences to apprehend a phenomenon. This paradigm recognizes that individuals' experiences aid in developing their world (Firdaus, 2005; Miller, 2002, p. 52). Consistent with this paradigm, MI considers that individuals' situations and experiences are different, so approaching an individual needs to be tailored to/guided by that individual (Miller & Rollnick, 2013). Thus, MI does not seek to find the objective within a situation, but rather the subjective. In other words, one individual is not "more true or false than the other" (Miller, 2002, p. 52). Therefore, it is essential to understand what is best suited for everyone.

Similarly, PCA posits that individuals' experiences help them better understand themselves and their reality (Wosket, 2006). Moreover, PCA suggests that "diagnostic labeling" (Wosket, 2006, p. 13) within counseling can never be warranted because individuals are diverse and multifaceted. PCA has had considerable influence on psychotherapy because it does not prescribe a particular treatment but instead focuses on acceptance over change and concentrates on empathy rather than diagnosis (Elliott & Freire, 2007, p. 2). Behavior is based on what an individual wants to do, resulting in their experiences and actions to expand their world (Wosket, 2006).

A post-positivist perspective guided the evaluation of this intervention. Communication science within a post-positivist perspective is about prediction, explanation, and control and believing human behavior can be understood and improved through a systematic study (Douglas, 2014; Fay & Moon, 1977; Miller, 2002; Wimmer & Dominick, 1994). Once researchers know what to research, they will create their instruments (i.e., research questions (RQ's), hypotheses (H's), and surveys) and will progress (Kuhn, 1998). Post-positivists believe theory should guide research because they have previous truths (i.e., value beyond context). Theories are more feasible for additional development because they solve the "why" and yearn to establish knowledge (i.e., gain understanding; Cappella & Hornik, 2010; Douglas, 2014). Therefore, the evaluation process of this study incorporated a pre-test and post-test field experiment, which was guided by research questions, with the majority of the survey responses having an objective, right or wrong answer. In the following sections, PCA and MI are discussed.

Person-Centered Approach

For this dissertation, PCA from the perspective of Rogers was selected because PCA is utilized often within public health and applied work. PCA should not be confused with person-centered communication utilized within the constructivist perspective of communication (Burleson, 1989; Burleson, Delia, & Applegate, 1995; Kline et al., 1991). Unlike PCA, person-centered communication (PCC) posits that one's ability to tailor a message for another is due to personal constructs (Raskin, 2002), cognitive complexities (Raskin, 2002) and "perspective taking" (Bernstein, 1975; Fix & Sias, 2006, p. 37). In other words, though PCC has similar aspects of PCA, PCC tends to commence by measuring underlying psychological specific goals, while PCA is known to be a more applied approach developed to assist in behavior change (i.e., specifically for counselors/therapists and their patients) (Fix & Sias, 2006).

The original hypothesis of PCA is, "the individual has within him or herself vast resources for self-understanding, for altering the self-concept's basic attitudes, and his or her self-directed behavior-and these resources can be tapped if only a definable climate of facilitative psychological attitudes can be provided" (Rogers, 1979, p. 1). The fundamental assumptions of this perspective include: (1) "human beings have an inherent tendency to progress instinctively towards accomplishment of potential;" (2) "human beings' basic needs, capacities, and tendencies are good or neutral, not evil, and healthy development means actualizing these

tendencies;" (3) "people are resourceful and capable of self-direction;" (4) "a distinction can be made between the real, underlying, organismic self and the self-concept;" (5) "individuals become estranged from their organismic (true) self through internalizing conditions of worth;" (6) "psychological disturbance is perpetuated where an individual continues to be dependent on the judgment of others for a sense of self-worth;" (7) "behavior is a function of how the individual feels about him or herself on the inside;" (8) "the best vantage point for understanding behavior is from the internal frame of reference of the individual" (Wosket, 2006, p. 13). Overall, these assumptions mean individuals have the power to change their behaviors, but they need to believe they are capable. Additionally, suppose an individual wants to aid in the behavior change of another. In that case, they need to include that individual in the process. They need to accentuate the positive abilities and inclinations of that individual. Also, they need to increase that individual's self-esteem.

Within PCA, reflective listening is a principle that suggests learning is improved when an individual has the confidence (i.e., self-efficacy), which can be reflected in MI because the individual needs to believe they have the control and confidence (i.e., self-efficacy) to engage in behavior change for MI to be effective (Lindhe Söderlund, 2010). Rogers (1957) discussed what needs to happen over time between a counselor and client for personal change. Notably, they need to meet, the client needs to be in a state of needing and wanting change, the counselor needs to be understanding and empathy and communication needs to be firm with the client. Still, the expression should not be too strong to deter the client (Rogers, 1957). According to PCA, an ideal counseling situation promotes a climate of growth (Rogers, 1979). One can assume the role of a counselor who someone discloses to them about a health condition such as EDs. Thus, one should be real, genuine, and display acceptance, caring, positive regard, and empathic understanding (Rogers, 1979). Next, MI, which enacts the assumptions of PCA, is discussed.

Motivational Interviewing

MI is a "client-centered counseling style" (Magill & Hallgren, 2019, p. 1) that has its roots in PCA (Miller & Moyers, 2017). Miller and Rose (2009) hypothesized a series of relationships between MI's process and outcome variables. This proposed theoretical model accentuates two "active components": "relational" (i.e., empathy and MI spirit (i.e., autonomy, collaboration, and evocation)) and "technical" (i.e., methods and "differential evocation" and

“reinforcement of client change talk”) (Miller & Rose, 2009, p. 1). In other words, "a testable theory of its mechanisms of action is emerging, with measurable components that are both relational and technical" (Miller & Rose, 2009, p. 12). Although this dissertation did not propose to test this emerging theory, the results of this project may provide insights to further MI theory development.

This dissertation project focused on training adolescents with listening skills that are consistent with an MI perspective. The scope of the current project was to understand if training in listening skills from an MI perspective can increase the knowledge and efficacy of adolescents who participated in the training to utilize the skills learned during a peer’s disclosure of EDs. Now that PCA and MI have been discussed, the next section discusses the integration of these approaches.

MI and PCA

The assumptions of PCA guide MI with an emphasis on intrapersonal and interpersonal communication (Wosket, 2006). In other words, MI emphasizes that although the individual is the one contemplating and potentially changing behavior (i.e., intrapersonal), assistance may come from the person trained in MI (i.e., interpersonal) (Miller & Rollnick, 2013). According to Rogers, humans have control (Wosket, 2006). They can achieve what they need to succeed, which is consistent with the assumption of MI that the individual wanting change needs to be the primary influencer of the change process (Miller & Rollnick, 2013). According to Rogers’ assumptions, individuals' feelings influence their behavior, and MI believes counselors who express empathy and good listening can be impactful because they can help individuals better understand their emotions and behaviors (Miller & Rollnick, 2013; Wosket, 2006).

Miller (2014) provided the following table to compare MI with the Person-Centered Approach (Table 1).

Table 1. Comparison of Motivational Interviewing and the Person-Centered Approach (Miller, 2014)

	Motivational Interviewing	Person-Centered Approach
Focus	Narrower focus on facilitating change with regard to a particular goal or problem	Broader focus on facilitating general well-being and personal growth
Mode of delivery	Most often delivered one-to-one, in the context of treatment services, though group delivery is well along (Wagner & Ingersoll, 2013)	Most often delivered in group format within a personal growth context, though also offered as individual counseling
Duration	Typically brief, though the spirit and style can be a foundation for additional treatment	Typically extended in intensive days or in sessions over weeks or months
Direction	Consciously and strategically directed toward one or more identified change goals	Historically non-directive; though there may be explicit or implicit goals
Clientele	Often used in treatment for identified problems or disorders	Often used toward personal growth for fairly well-functioning people
Discrepancies	Seeks to resolve ambivalence in the direction of change goal	Seeks to resolve incongruence in the direction of authentic self
Evidence base	Strong research focus; many randomized trials since 1990	Original psychotherapy research tradition; relatively few outcome studies since 1990
Eclecticism	Often combined with other forms of treatment	Often offered as sole treatment
Theory	No comprehensive theory of well-being, personality or psychotherapy; theory is specific to processes of MI	PCA is rooted in Rogers' broad theory of well-being, personality, and psychotherapy
Linguistics	Particular focus on specific forms of client speech (such as change talk, sustain talk and discord)	Noncontingent attention and empathic response to client speech

As this table indicates, although MI stems from PCA, there are similarities and differences between MI and PCA. Both approaches may last over an extended time in terms of similarities, but MI tends to be briefer (Miller, 2014). Both MI and PCA can be provided within a group setting (Miller, 2014). Regarding direction, both may have implicit or explicit goals (Miller, 2014). Although the clientele is different, both MI and PCA aim to help individuals become better (Miller, 2014). Concerning discrepancies, both addresses contrasting thoughts but do so in different ways (i.e., to "change goal" (MI) and to "authentic self" (PCA) Miller, 2014). Lastly, although there are differences in the language used within MI and PCA, both emphasize communication that facilitates empathy (Miller, 2014).

In terms of differences between MI and PCA, MI has a narrower focus than PCA when aiding in an individual's growth and change (Miller, 2014). Considering the mode of delivery, MI is more one-to-one and PCA is more group-based (Miller, 2014). Regarding the evidence base, MI tends to have a more recent and more reliable research focus than PCA (Miller, 2014). Concerning eclecticism, MI tends to be used with other treatments, whereas PCA is used by itself (Miller, 2014). In terms of theory, MI is not based on a theory. PCA is based on the broad

approach to well-being initiated by Rogers (Miller, 2014). Lastly, when it comes to linguistics, MI focuses on speech types, whereas PCA focuses on empathic responses (Miller, 2014). Specifically, MI focuses on "change talk, sustain talk, and discord" (Miller, 2014, p. 2).

Considering the similarities and differences between PCA and MI, PCA served as the overarching perspective for this dissertation project, while MI guided the intervention. Typically, MI is used to help those with disorders, which was the health context for this dissertation (i.e., EDs). MI has a narrower focus that can help address the specific goal of improving listening, and delivery tends to be one-to-one, assisting adolescents should they encounter peer disclosure of an EDs (Miller, 2014). Moreover, MI tends to be accomplished in briefer sessions than PCA (Miller, 2014), which is consistent with the briefer timeframe available for training adolescents who may experience encounters with peers about EDs. MI's use within the context of EDs and listening are discussed next.

MI and EDs

MI has been used in the context of EDs (Treasure et al., 2011) and has helped individuals struggling with EDs better understand their ambivalence toward changing their behavior and has helped increase their need and action for change (Cassin & Geller, 2015). In the context of EDs, MI has been found to help increase self-efficacy among those struggling (Cassin & Geller, 2015). After measuring self-efficacy following a session of MI among those with BED, Cassin and colleagues (2008) found that in four months there was a behavioral change. Cassin and Geller (2015) elaborated on this research by discussing ways individuals can help increase self-efficacy. Specifically, they discussed utilizing the client's past examples of essential changes they completed to show they have made changes before and can do so again.

Additionally, an individual can ask them to think about the strategies they utilized that helped in the past and if they could be used for their current behavior change. Lastly, an individual can ask what obstacles the individuals faced in the past and how they overcame those obstacles, reminding them of analogous situations they have overcome and how they have the power to do so again, which may increase their self-efficacy. MI has also helped increase individuals' need for change, but only with those who have BED and BN, not AN (Cassin & Geller, 2015).

MI has been a useful tool to help adolescents suffering from EDs (Treasure et al., 2011). The utilization of MI has increased confidence, readiness to change, motivation, and has decreased psychiatric symptoms, binging (among those with BED), and depression (Cassin et al., 2008; Dean et al., 2008; Dunn et al., 2006; Feld et al., 2002; Treasure et al., 2011; Wade et al., 2009). Nevertheless, Golden et al. (2016) discussed the need for more research on EDs, MI, and adolescents, supporting the goal of this study, specifically in terms of listening. The interventions that focus on MI and EDs, listening, and Brief Motivational Interventions (BMOI) are discussed next.

Interventions

Within the discipline of Communication, various interventions to teach listening and target individuals with EDs have been developed. However, there are no interventions, to the researcher's knowledge, that integrate listening and EDs disclosure among adolescents. Within this section, MI and EDs interventions, listening interventions, and brief MI interventions are discussed.

MI and EDs Interventions

Several EDs intervention studies have occurred, and these studies found that MI has been useful for treating disordered eating and increasing readiness for change (Cassin & Geller, 2015). For example, BED decreased among college students who received MI plus a self-help guide compared to those who just received the guide (Cassin & Geller, 2015; Dunn et al., 2006). Similarly, BN and AN individuals decreased their depression and increased their self-esteem in an MI intervention that contained a four-session group (Cassin & Geller, 2015; Feld et al., 2001; Treasure et al., 2011). López (2008) studied personalized feedback in EDs and found perfectionism and negative eating behaviors decreased. These findings suggest that incorporating MI is an effective way to help manage EDs (Treasure et al., 2011). More research on MI interventions and EDs needs to occur to understand further the impact these interventions have on adolescents with EDs (Treasure et al., 2011) and adolescents exposed to EDs disclosure. Researchers hint at the need to look into methodology quality more among MI and EDs interventions, such as randomized control trials (RCTs) (Macdonald et al., 2012). Doing so

through EDs supports the need for this dissertation project. Listening interventions are discussed in the next section.

Listening Interventions

Listening interventions are understudied in Communication, especially teaching adolescents listening skills to enhance conversations about stigmatized health topics (e.g., EDs). Listening interventions for adolescents have occurred in a variety of contexts such as music listening (Grebosz-Haring, & Thun-Hohenstein, 2018), occupational therapy and autism (Giving & de Sam Lazaro, 2018), hearing loss prevention (de Bruijn et al., 2016), and suicide prevention (Zachariah et al., 2018). "[Listening interventions need to] promote the listener's motivation by advancing the listener's goals for listening" (Rost, 2007, p. 104). Understanding adolescents' goals for listening may result in designing interventions that motivate them to listen. For example, if the listener's goals for listening were to help a close friend, knowing that information may promote the listener's motivation, which could help increase listening to the topic of EDs if that is what their close friend needed. For her dissertation, Karras (2017) created an intervention to help parents and obese adolescents manage conflict and listen effectively. Specifically, she discussed how parents could utilize MI to help with their children's obesity, and she created two online training modules that lasted about 20 minutes. During the effective listening section, the "roadblocks" to listening were addressed, open-ended questions were incorporated, and reflective listening was utilized. In the conflict section, parents provided tools for responding to issues that may arise with their children. Feedback on the modules from professionals was obtained, and the modules were tested to determine effectiveness. Overall, Karras (2017) found that the content provided was useful, accessible, relevant, and the training was appreciated (in part because it was self-paced). However, many participants wanted more examples that were the same length of time. They mentioned, "educational programs that focus on communication skills would help parents feel better prepared to manage their children" (Karras, 2017, p. 47). If parents do not feel equipped to communicate with their children, peers may not feel equipped either. This dissertation project attempted to address this supposition.

Brief Motivational Interventions (BMOI)

BMOI is a type of intervention within MI (Miller & Rollnick, 2002) to assist in behavior change (Gaume et al., 2010). BMOIs typically range between 20 and 60 minutes and are useful and convenient for teaching listening (Gaume et al., 2010). This approach is also beneficial to adolescents because adolescents struggle with maintaining attention and focus for an extended time (Vawter, 2009). Thus, conducting a brief intervention was more realistic for this target audience. Also, because secondary schools have limited time, usually 50-minute periods, a brief intervention was preferred.

Application of BMOIs in past research has been primarily among adolescents with substance use/abuse (Bear et al., 2008), which, like EDs, is a stigmatized health issue. For example, Wagner et al. (2014) analyzed the effectiveness of BMOI/Cognitive Behavioral Therapy (CBT), also known as Guided Self-Change (GSC), in addressing substance use and aggression among adolescents (i.e., minority students) within schools. The researchers compared GSC with standard care (SC) and conducted a post-test and post-post-test (at 3 and 6 months) and found that GSC was more effective than SC. Bear and colleagues (2008) utilized BMOI to understand the change language (i.e., an individual's thoughts about present issues, "benefits of change", and anticipation of a change in the future) of homeless adolescents in the context of drug and alcohol use (p.1). The study found that the use of "arguments for change" or change talk (Bear et al., 2008, p. 1) resulted in changes in behavior, and negative responses resulted in adverse changes in behavior.

In another study, D'Amico and Parast et al. (2018) studied adolescents and substance abuse (e.g., alcohol, marijuana, other drugs) for more than two years using an online survey (i.e., baseline, 3, 6, 12 months). They utilized a recent BMOI called CHAT, which was conducted in primary care offices and was developed with adolescents, primary care providers, parents, and staff contributions. The researchers compared CHAT with standard care within four clinics. They found that this BMOI decreased adolescents' adverse effects from substance use a year after the intervention in primary care.

Although BMOI has been influential within the context of substance use and abuse, it needs to be further explored within listening and EDs. This dissertation is the first research project, to the knowledge of the researcher, that educated adolescents about EDs and listening while providing them training and resources designed to help them feel prepared and confident to

listen effectively following another adolescent's disclosure of EDs. Herman and colleagues (2015) added that successful interventions with adolescents take place within a "school subsystem" (p. 192), which lends support to this dissertation project taking place within a school setting. Successful interventions with adolescents take place within a school subsystem because it provides a multilayered approach (i.e., subsystems within schools consist of "school-wide," "classroom," and "individual student levels"; Herman et al., 2015, p. 199) that concurrently targets many aspects within the schools (i.e., risk factors; Domitrovich et al., 2010; Herman et al., 2015). Herman and colleagues (2015) recommended that future studies consider "school-wide models and examine their effects in reducing the incidence of disorders in addition to their known effects on symptoms" (p. 198), which further supports the mission of this dissertation. The mission of this dissertation was to increase adolescents' knowledge and self-efficacy while listening during the disclosure of EDs, which hopefully will result in the reduction of the incidences of EDs. Ultimately, adolescents need the skills to listen effectively. Skilled adolescent listeners may help those struggling with EDs feel listened to and equip adolescents for future relationships (e.g., friends, family, co-workers, others). Past research suggests that effective listening skills can be obtained through BMOIs and may be applied within the context of disclosure of EDs. The difference between an education-only and education-plus intervention is discussed within the next section.

Education-only vs. Education-plus intervention

Education-only and education with supplemental materials (i.e., applied activity/role play) are frequently utilized within interventions and in a variety of contexts (e.g., urinary incontinence, Wagg et al., 2019; the well-being of new mothers, Norman et al., 2010; prostate cancer, Lepore et al., 2003; nutrition, Whatnall et al., 2018; physical activity, Rhodes et al., 2019). Many studies have found that interventions with education and supplemental materials are more effective than interventions with education-only. For example, Norman and colleagues (2010) examined an 8-week "Mother and Baby" program, which consisted of education on parenting plus a supplemental activity (e.g., exercising in a group with their babies) and education-only (i.e., the same education utilized within the education-plus interventions but no supplemental activity). They found that well-being improved, and depressive symptoms decreased more among those in the education-plus group than the education-only group (Norman

et al., 2010). Thus, supporting the effectiveness of providing supplemental material with education during interventions.

Similarly, Whatnall and colleagues (2018) conducted a systematic review of brief interventions among adults on the topic of nutrition. They found education-plus interventions (i.e., the inclusion of feedback, advice, recommendations, and writing plans) to be more effective than education-only (Whatnall et al., 2018). This further supports not only the effectiveness of education-plus supplemental materials but of brief interventions. Whatnall and colleagues (2018) examined the use of brief interventions within this study and found them to be effective within the short-term when it came to dietary behaviors. Lastly, Rhodes and colleagues (2019) examined the influence of physical activity among children based on activity planning by parents through two interventions: 1) education only (i.e., physical activity information within Canada) and 2) education plus (i.e., physical activity information within Canada plus planning materials: a workbook and calendar). They found the education-plus planning to be more effective than the education-only intervention, which further supports the effectiveness of education-plus supplemental materials when it comes to interventions.

Stemming from the review of literature, this dissertation project aimed to design, implement, and evaluate a BMOI listening intervention for adolescents within the context of EDs disclosure. The following RQs guided the development and evaluation of a listening intervention within the context an EDs disclosure. The first group of RQs addressed knowledge and the second group addressed self-efficacy.

RQs pertaining to knowledge:

RQ1a: Will adolescents who participate in an applied MI activity of an EDs listening intervention increase their **OARS knowledge** more than adolescents who participate in an applied Q&A session?

RQ1b: Will adolescents who participate in an applied MI activity of an EDs listening intervention increase their **righting reflex knowledge** more than adolescents who participate in an applied Q&A session?

RQ1c: Will adolescents who participate in an applied motivational interviewing (MI) activity of an EDs listening intervention increase their **knowledge of listening** more than adolescents who participate in an applied Q&A session?

RQ1d: Will adolescents who participate in an applied MI activity of an EDs listening intervention increase their **EDs knowledge** more than adolescents who participate in an applied Q&A session?

RQ pertaining to self-efficacy:

RQ2: Will adolescents who participate in an applied MI activity of an EDs listening intervention increase **self-efficacy for listening** more than adolescents who participate in an applied Q&A session?

This study explored a few additional RQs because the researcher was curious to see differences between students from different schools and gender identities. The schools were located in different cities, so the researcher was interested to learn if there would be differences among the students in knowledge (e.g., OARS, righting reflex, listening, and EDs) and self-efficacy, which may suggest whether the intervention could be generalizable to different schools. Thus, the following questions were addressed:

Additional questions on School 1 and School 2 differences on knowledge:

RQ 3a: Are there differences between School 1 and School 2 in adolescents' **knowledge of OARS** after the EDs listening intervention?

RQ 3b: Are there differences between School 1 and School 2 in adolescents' **knowledge of righting reflex** after the EDs listening intervention?

RQ 3c: Are there differences between School 1 and School 2 in adolescents' **knowledge of listening** after the EDs listening intervention?

RQ 3d: Are there differences between School 1 and School 2 in adolescents' **EDs knowledge** after the EDs listening intervention?

In terms of gender identities, only those who identified as male or female were considered because the sample size was too small to report other gender identities (i.e., one answered "preferred not to say"). Previous researchers have found that those who most commonly struggle with EDs identify as female (NEDA, 2019b). As a result, females may know more about EDs than males, and may feel more comfortable talking about EDs. Thus, the researcher wondered if this would be the case in this study. Additionally, many believe that those

who identify as female tend to be better listeners than those who identify as male. Research has shown that males are more "action-oriented listeners" (i.e., listen to take action regarding specific responsibilities) (Jansen, 2020, para. 8). In contrast, females are known to be more of "people-oriented listeners" (i.e., focus on the emotional aspects while listening) (Jansen, 2020, para. 8). As a result, females may know more about the type of listening discussed within this intervention than males and may feel more efficacious in utilizing aspects of listening and MI. Hence, the researcher wondered if this notion would hold in this study . Therefore, the researcher asked if there would be a difference between gender identities regarding knowledge (e.g., OARS, righting reflex, listening, EDs) and self-efficacy. Thus, the following questions were addressed:

Additional research questions on gender identity differences on knowledge:

RQ 4a: Are there differences between adolescents identifying as male and adolescents identifying as female in the **knowledge of OARS** after the EDs listening intervention?

RQ 4b: Are there differences between adolescents identifying as male and adolescents identifying as female in the **knowledge of righting reflex** after the EDs listening intervention?

RQ 4c: Are there differences between adolescents identifying as male and adolescents identifying as female in the **knowledge of listening** after the EDs listening intervention?

RQ 4d: Are there differences between adolescents identifying as male and adolescents identifying as female in **EDs knowledge** after the EDs listening intervention?

Additional research questions on School 1 and School 2 and gender identity differences on self-efficacy:

RQ 5: Are there differences between School 1 and School 2 in the adolescents' **self-efficacy** after the EDs listening intervention?

RQ 6: Are there differences between adolescents identifying as male and adolescents identifying as female **self-efficacy** after the EDs listening intervention?

In summary, Chapter 1 included the statement of the problem and a proposed solution surrounding EDs and listening. Regarding EDs, the following were discussed: what EDs are, the common types, and EDs among adolescents. Regarding listening, the following were addressed:

what listening is, active-empathic listening, listening during disclosure, and teaching listening (e.g., benefits and challenges). The Person-Centered Approach and Motivational Interviewing were offered as the theoretical and methodological approaches that guide this dissertation project. EDs and listening interventions also were discussed. Overall, it was determined that there is a gap in the literature on interventions in the context of listening during the disclosure of EDs, so a series of RQs were forwarded. Chapter 2 discusses a listening during disclosure of EDs intervention that was developed and evaluated to address the RQs.

CHAPTER 2. METHODOLOGY

The method proposed to address the RQs was a school-based field study that recruited adolescents at two middle schools in a Midwestern state in the United States. These adolescents participated in a Brief Motivational Interviewing (BMOI) intervention focused on listening within the context of EDs disclosure by a peer. Pre-intervention and post-intervention surveys were conducted to evaluate the effectiveness of the intervention (Appendix C). Within this chapter, participants, recruitment, and intervention procedures are discussed. In the following sections, participant recruitment and participant randomization are described.

Participants

The target audience for the intervention was adolescents (i.e., 10-19 years of age) recruited from two middle schools in a Midwestern state during the Spring of 2021[1]. Participants filled out a pre-test (n = 44) and post-test (n = 31) survey. More participants from School 1 completed pre-test surveys (n = 23, 52.3%) than School 2 (n = 21, 47.7%). However, more participants from School 2 (n = 26, 83.9%) completed post-test surveys than School 1 (n = 5, 16.1%). Participants who completed the pre-test survey ranged in age from 13-16 years, with most of them being 14 (n = 35, 79.5%). Participants who completed the post-test surveys ranged in age from 13-14, with many of them being 14 (n = 27, 87.1%). Female (n = 26, 60.5%) was the dominant gender identity of the adolescents who completed the pre-test survey, followed by males (n = 17, 39.5%). Those that identified as female (n = 19, 61.3%) also completed more post-test surveys followed by those who identified as males (n = 12, 38.7%). Participants who completed the pre-test survey predominantly identified as having the sexual orientation of straight (n = 34, 77.3%) followed by bisexual (n = 6, 13.6%). This was also found among the participants who completed the post-test survey (i.e., straight, n = 24, 77.4%; bisexual, n = 5, 16.1%). Participants in the pre-test (n = 33, 75%) and post-test (n = 23, 74.2%) surveys identified predominantly as white. Table 2 includes demographic information for participants in this dissertation project. Next, the recruitment of participants for this study will be discussed.

[1] 2020-2021 was the year of the Coronavirus pandemic.

Table 2. Demographic Information

	Pre-Test (n = 44)		Post-Test (n = 31)	
	Number	%	*Number*	%
School				
1	23	52.3%	5	16.1%
2	21	47.7%	26	83.9%
Age				
13	5	11.4%	4	12.9%
13.7	1	2.3%	0	0
14	35	79.5%	27	87.1%
15	2	4.5%	0	0%
16	1	2.3%	0	0%
Gender Identity				
Male	17	39.5%	12	38.7%
Female	26	60.5%	19	61.3%
Sexual Orientation				
Straight	34	77.3%	24	77.4%
Bisexual	6	13.6%	5	16.1%
Gay	2	4.5%	1	3.2%
Other	2	4.5%	1	3.2%
Other-Asexual	1	2.3%	0	0%
Other-No labels	1	2.3%	1	3.2%
Ethnicity				
American Indian or Alaska Native	2	4.5%	0	0%
Asian	2	4.5%	1	3.2%
Black or African American	1	2.3%	2	6.5%
White	33	75%	23	74.2%
Hispanic or Latino or Spanish Origin	4	9.1%	2	6.5%
Multiracial or Biracial	2	4.5%	3	9.7%

Recruitment

Participant recruitment was dependent on which schools, teachers, and parents were willing to have their students' data (obtained from the surveys) utilized within the study. The researcher contacted schools previously presented at and reached out to other middle and high schools within the local county. Ultimately, two total schools (n = 260), School 1 (n = 100), and

School 2 (n = 160), and three total teachers (i.e., Teacher 1, Teacher 2, and Teacher 3) between the two schools allowed the researcher to present and collect data. Teacher 1 (n = 100) was from School 1, and Teacher 2 (n = 120) and Teacher 3 (n = 40) were from School 2. The schools and teachers were from a Midwestern middle school system within the United States.

Participants were randomized into one of two groups 1) the EDs listening intervention (education-plus) with an MI component (i.e., field experiment group) or 2) an education-plus Q&A intervention (i.e., control group). Specifically, the researcher flipped a coin for each of the guest lectures, and if it landed on heads, that class was randomized into the education-plus MI intervention (n = 6 classes), and if it landed on tails, that class was randomized into the education-plus Q&A (n = 7 classes). All students were allowed to participate in the guest lecture and pre-test and post-test survey. However, the students who assented (Appendix D) and whose parent/guardian consented (Appendix E) were the only ones whose data was collected. The students who did not assent or whose parent/guardian did not provide consent were allowed to take the pre-test and post-test surveys, but their data was not retained for this study. Next, the procedures will be discussed in detail.

Procedures

This methodology for this dissertation project is a 2 (pre/post, unmatched) X 2 (condition) subjects design. Data was eliminated if there was not parental/guardian consent, if there were duplicates, and if many of the questions on the survey were not completed. This dissertation is a study for future interventions involving listening during disclosure of EDs. The experimental groups and the control groups were provided information about listening within MI, EDs (e.g., statistics, common types of EDs, symptoms), and those within the experimental group engaged in a role-play to practice effective listening skills suggested by MI and communication literature. Those randomly placed in the control group engaged in a question-and-answer (Q&A) session rather than the role play. The details of the intervention include (1) objectives, (2) length, and (3) process, which are discussed in more detail in the next sections.

Objectives

This BMOI intervention in the context of EDs had four objectives. The first objective was for participants to learn about listening during disclosure (i.e., Becker-Blease & Freyd, 2006; Campbell et al., 2001; Foynes & Freyd, 2011; 2013). The second objective was for participants to identify common EDs (e.g., AN, BN, BED, OSFED). The third objective was for participants to identify risk factors (i.e., psychological, physical, and social) and symptoms (i.e., emotional, and physical) of those that may have EDs. The fourth objective was for participants to learn about effective listening through a BMOI approach (i.e., OARS, righting reflex; Miller & Rollnick, 2013) and to apply that within the context of EDs. The length of the intervention is discussed next.

Length

The intervention was designed for approximately 50 minutes, which is a typical middle school class period. During the first five to 10 minutes, the lead researcher introduced themselves and asked a few questions to capture the audience's attention. The next 15-30 minutes focused on information about listening, EDs, and motivational interviewing. The following 10 minutes included the role-playing activity or the Q&A activity. Students were emailed, by their teacher, a link to fill out the post-test survey the day after the guest lecture. Within the next section, the development of the intervention is discussed. Specifically, the creating and presenting process.

Creating the Intervention

The idea to create this intervention occurred while taking a graduate-level course on design and analysis of interventions. During that course, the researcher was involved in developing and presenting an intervention that focused on disclosure and EDs among adolescents at local middle and high schools. This provided valuable experience and connections for this study. Additionally, the researcher worked part-time at a local organization that specializes in EDs. Part of this role involved the researcher providing similar presentations at local middle and high schools during the National Eating Disorders Association's (NEDA) Awareness Week in February. Because of this experience, the researcher reached out to the director of the

organization, a registered dietitian that has years of experience within the field of EDs, to confirm the accuracy of the information included in the intervention.

Initially, the order of the content within the presentation was information about EDs, listening information, MI information, and the activity. However, after consulting the researcher's committee members, it was determined that the order presented in the next section would likely be more effective. Thus, the adolescents in the study were first presented the basics of listening/active-empathic listening, then the basics of EDs, followed by two critical aspects from MI that pertain to listening [2] particularly within the context of EDs. This presentation of the content was the same for the experimental and control groups, except for the last part of the presentation (i.e., activities) which differed. The experimental group engaged in an MI applied activity, and the control group engaged in a Q&A activity. As previously stated, MI was selected because it has been a practical approach to help those struggling with EDs (Cassin et al., 2008; Cassin & Geller, 2015; Treasure et al., 2011). Additionally, the layout and idea of the activity was somewhat influenced by the brief motivational interviewing approach used by Greene et al. (2013) article. The Q&A section was selected for the control group so the participants would have an activity for the ten minutes that the participants in the experimental group had the MI applied activity.

Lastly, a fact sheet was created so participants had something tangible they could refer to that summarized the main points from the guest lecture. The researcher also considered it essential to provide resources for participants to refer to later. The fact sheet contains tips about effective listening, information about EDs and MI, and other resources to seek guidance and support. Now that the process of creating the intervention has been discussed, the next section elaborates on the process of the intervention.

Process of the Intervention

The process of the intervention (Appendix F) consisted of seven steps: (1) pre-test survey, (2) information about listening, (3) information about EDs, (4) MI information (5) MI activity, (6) Q&A activity (7) fact sheet, and (8) post-test survey. The control group progressed through the same steps but instead of an MI activity, they had a Q&A activity.

[2] There are several elements of MI but focusing on two crucial elements was necessary due to the one class period time constraint of the guest lecture.

Pre-Test and Post-Test Surveys

The surveys assessed whether an increase in knowledge about listening and EDs occurred and whether participants' listening self-efficacy in the context of EDs increased. Additionally, the surveys addressed the RQs. The pre-test survey was distributed via an email (Appendix G) to each teacher to share with their students. This occurred the day before participants engaged in the intervention/guest lecture. The pre-test survey included questions that asked about: (1) demographics, (2) knowledge of listening, (3) knowledge of EDs, (4) listening self-efficacy during disclosure of a peer's EDs, (5) knowledge of OARS, and (6) knowledge of the righting reflex. The same survey items were used after the intervention (post-test) to assess any differences that may be attributed to the intervention. The experimental groups and control groups received the same email.

This dissertation project has two independent variables: (1) experimental condition (e.g., education plus MI and education plus Q&A), and (2) time (e.g., pre-test and post-test). This dissertation project has five dependent variables: (1) knowledge of OARS, (2) knowledge of righting reflex, (3) knowledge of listening, (4) EDs knowledge, and (5) listening self-efficacy. The dependent variables were measured through the pre-test and post-test surveys. Knowledge of the topics covered during the intervention and within the surveys included listening, EDs, OARS, and the righting reflex was assessed. However, they were listed within the same order as the RQs within the next section, because the order of the RQs was changed after surveys were completed. Demographics of the participants (e.g., age, grade, gender, race, ethnicity, sexual orientation) were asked to determine if there were other differences between those who participated in the intervention. The next section explains how participants' knowledge and self-efficacy were assessed.

Knowledge of OARS

Because survey questions do not currently exist to assess OARS, and since participant's knowledge of the intervention is being assessed, questions were created based on the intervention content. There were five items in this measure and response choices included (1) true, (2) false, (3) I do not know. A sample question included, "It is important to ask as many questions as possible in a row so you can get all of the information you need quickly." The five items were

coded as (0), incorrect, or (1) correct. In other words, those answers that were "incorrect" or participant responded "I do not know" were coded as (0) and correct answers were coded as (1). Of the five items in this measure, three were retained (M = 1.61, SD = 1.11, α = .67) because the items not retained hindered the Cronbach's alpha.

Knowledge of the Righting Reflex

Because survey questions do not currently exist to assess righting reflex, and since participant's knowledge of the intervention is being assessed, questions were created based on the intervention content. There were five items in this measure and response choices included (1) true, (2) false, (3) I do not know. A sample question included, "Engaging in the righting reflex involves wanting to fix what is wrong and advising others what they should be doing." The five items were coded as (0), incorrect, or (1) correct. In other words, those answers that were "incorrect" or participant responded "I do not know" were coded as (0) and correct answers were coded as (1). Of the five items in this measure, three items were retained (M = .89, SD = 1.16, α = .79) because the items not retained hindered the Cronbach's alpha.

Knowledge of Listening

Survey questions for knowledge of listening were created based on the intervention content since participants' knowledge learned from the intervention was assessed. Some scales assessed listening knowledge, but not the same content covered within the intervention/guest lecture, (e.g., Bodie, 2011; Mishima et al., 2000). This is because the researcher selected information from her research she felt holistically covered the topic and what she believed would be important for adolescents to be aware of and that also pertains to the topics of EDs and MI. There were five items in this measure and response choices included (1) true, (2) false, (3) I do not know. A sample question included, "it is important to engage in active empathic listening when someone is telling you a difficult topic." The five items were coded as (0), incorrect, or (1) correct. In other words, those answers that were "incorrect" or participant responded "I do not know" were coded as (0) and correct answers were coded as (1). Of the five items in this measure, three were retained (M = 2.77, SD = .61, α = .64), because the items not retained hindered the Cronbach's alpha.

Knowledge of EDs

Survey questions for knowledge of EDs were created based on the intervention content since participants' knowledge of the intervention was assessed. Some scales assessed knowledge of EDs, but not the same content covered within the intervention/guest lecture (e.g., Napolitano et al., 2019). There were five items in this measure and response choices included (1) true, (2) false, (3) I do not know. A sample question included, "eating disorders only impact women." The five items were coded as (0), incorrect, or (1) correct. In other words, those answers that were "incorrect" or participant responded "I do not know" were coded as (0) and correct answers were coded as (1). Of the five items in this measure, all items were retained (M = 3.47, SD = 1.22, α = .59) because they contributed to the Cronbach's alpha.

Self-Efficacy

Self-efficacy is conceptually defined as "a judgment of one's ability to organize and execute given types of performances" (Bandura, 1997, p. 21). Survey questions measured participants' self-efficacy about listening effectively if another student at school disclosed an EDs. Many theories within the discipline of communication have self-efficacy as a component (e.g., Social Cognitive Theory, Health Belief Model) (Bandura, 1997). Rahimi and Abedi (2014) further emphasized the need for more research on self-efficacy and listening. Survey questions about listening self-efficacy were adapted from Afifi and Caughlin (2006) and Afifi and Steuber (2009) and this measure included four items. This scale has a high reliability (α = .92, Afifi & Steuber, 2009). The items were tailored to reflect the adolescents' perception of their ability to adequately listen to a peer and/or friend with EDs, and/or appropriately listen if a peer and/or friend would approach them about their EDs behaviors. Responses ranged from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) and were reversed coded for analyses. A sample item included "I wouldn't know how to listen if someone disclosed to me that they had an eating disorder." All four items in this measure were retained (M = 22.08, SD = 5.69, α = .86) because they contributed to a strong Cronbach's alpha, which indicates a robust and reliable measure (Tavakol & Dennick, 2011).

Information about Listening

Information about listening was provided in three parts. A definition of listening was discussed with an emphasis on active empathic listening and listening during disclosure. Next, the benefits of listening were discussed along with barriers to listening (i.e., comparing, mind-reading, rehearsing, filtering, judging, and daydreaming), and how to overcome the barriers, particularly following EDs disclosure. This section of the guest lecture was the same for the experimental and control groups.

Information about EDs

Information about EDs was provided in seven parts. First, a general definition of EDs was provided, and the common symptoms of EDs (i.e., emotional, social, and physical) were discussed. Second, the risk factors of EDs (i.e., psychological, physical, social) were addressed. Third, DE was discussed. Fourth, the main types of EDs (i.e., AN, BN, BED, OSFED/EDNOS) were presented. Fifth and sixth, startling statistics about EDs (i.e., a person dies every 62 minutes due to an EDs, EDs have the highest mortality rate; ANAD, 2019; Smink et al., 2012; NEDC, 2015) were discussed along with common myths and misconceptions (i.e., only girls suffer from EDs). This seventh part of this section of the intervention included resources from the National Eating Disorder Association (NEDA) (i.e., support groups, toolkits, pamphlets) and contact information for local organizations (e.g., Roundtable Wellness) (the seventh part). This section was the same for the experiment and control group.

Information about MI

MI information was provided in three parts. First, a general definition of MI was provided. Next, a discussion of OARS and the righting reflex took place. This section was the same for the experimental and control groups.

MI Activity

Similar to the approach taken by Foynes and Freyd (2011) and Miller (2018), for the role-playing exercise (i.e., education-plus MI), participants were placed into pairs and received the same scenario of a situation they may encounter. For example, it could be a friend or peer

struggling with one of the common EDs (i.e., AN, BN, BED, and OSFED). Once the participants were in pairs, whether they played the EDs discloser, or the listener was determined on a first come, first serve basis. Based on their role, participants read the relevant prompt (i.e., one participant read the discloser prompt, the other read the listener prompt). The discloser prompt stated: "Please pretend you are telling your partner in this activity about one of the eating disorders discussed in this presentation (i.e., Binge Eating, Bulimia, Anorexia, or OSFED). Do your best to talk about the symptoms that were discussed in the presentation and how you might talk about this disorder if you were experiencing it." The listener prompt stated: "Please take this time to listen to your partner. Utilize the tips you learned during this presentation (i.e., OARS) and stay away from the things we discussed to avoid (i.e., the righting reflex, DARVO, and listening barriers)."

Participants engaged in this activity for approximately 5 minutes and then switched roles so that each participant had the opportunity to practice the listening skills they learned. They utilized the OARS example (adopted from Miller and Rollnick, 2013) provided during the guest lecture as a guide during the role-play, which can be read within the detailed plan with script (Appendix A) and within the intervention presentation slides (Appendix F).

Due to the COVID-19 pandemic, five of the 13 classes were done virtually. In other words, the researcher provided the guest lecture via Zoom to the five classes while they met in person, but one of the five classes joined Zoom with the researcher because their class was conducted virtually. Therefore, the teacher aided the researcher in facilitating the discussions and activities for the four classes that met in person, and the researcher met with them via Zoom. The virtual class that joined the researcher via Zoom conducted the Q&A activity because it was easier to run than the breakout rooms for the MI activity as initially planned.

Q&A Activity

This activity, provided in detail in Appendix A, was conducted with the control group. The classes that served as a control group participated in a 10-minute Q&A activity. To begin, participants were asked if they had any additional questions and responded to the questions asked. However, questions were prepared just in case there were not many questions and to help generate discussion pertaining to listening within the context of EDs.

Fact Sheet

The fact sheet, provided in detail in Appendix B, was a one-page summary of the intervention content including a review of listening (i.e., listening barriers and benefits), EDs (i.e., risk factors, EDs vs DE) and MI (i.e., OARS, righting reflex). Additional resources were provided for future reference (i.e., RoundTable Wellness, NEDA). Participants were encouraged to review the fact sheet as a reminder about effective listening during peer disclosure of EDs.

Now that the discussion of this study's participants, recruitment, and procedures were discussed. Results of this dissertation is discussed next.

CHAPTER 3. RESULTS

This chapter discusses the results of this dissertation project. Specifically, the analyses utilized to answer the RQs. However, before those analyses and results are discussed, correlations were run to see the relationships between the following study variables: 1) condition, 2) time, 3) school, 4) gender, 5) self-efficacy, 6) listening, 7) eating disorders, 8) OARS, and 9) righting reflex.

Table 3. Zero-Order Correlation Matrix for Study Variables

Measure	1	2	3	4	5	6	7	8	9
1. Condition	—								
2. Time	0.06	—							
3. School	0.08	0.37 **	—						
4. Gender	0.06	0.01	0.08	—					
5. Self-Efficacy	0.21	0.13	0.17	0.31 **	—				
6. Listening	0.10	0.05	-0.02	0.06	0.09	—			
7. Eating Dis.	0.20	0.24 *	-0.04	-0.03	0.27 *	0.29 *	—		
8. OARS	0.05	0.59 ***	0.15	0.05	0.18	0.13	0.49 ***	—	
9. Righting Ref.	-0.14	0.17	0.12	-0.23 *	0.22	0.18	0.37 **	0.36 **	

* $p < .05$, ** $p < .01$, *** $p < .001$

Analyses to Address Research Questions

This dissertation had six research questions, with three of them having four parts, and three research questions with one part. These six research questions are discussed within this section. Specifically, the variables tested, how they were analyzed, and the overall results will be reported.

RQs 1a-d

RQs 1a-d questioned if adolescents who participated in an MI activity during an EDs listening intervention would increase their knowledge of OARS, the righting reflex, listening, and EDs more than adolescents who participated in the applied Q&A activity during an EDs intervention. To address these RQs, a two-by-two multivariate analysis of variance (MANOVA) was conducted with 1) OARS knowledge, 2) righting reflex knowledge, 3) listening knowledge, and 4) EDs knowledge as the dependent variables and the fixed factors of 1) condition (e.g., MI and Q&A) and 2) time (e.g., pre-test and post-test).

Overall, there was not a statistically significant multivariate interaction effect between condition and time, F (4, 68) = .50, p = .735, Wilks' Λ = .97, partial η^2 = .03. Similarly, there was no significant multivariate main effect for condition, F (4, 68) = 1.64, p = .174, Wilks' Λ = .91, partial η^2 = .09. However, there was a significant multivariate main effect for **time**, F (4, 68) = 9.28, p = .000, Wilks' Λ = .65, partial η^2 = .35.

Given the multivariate main effect for time the between subject's effects for each of the DVs associated with time was investigated. There was not a statistically significant effect for time for righting reflex knowledge, F (1, 71) = 2.48, p = .120, partial η^2 = .03, or for listening knowledge, F (1, 71) = .12, p = .730, partial η^2 = .002. However, there was a statistically significant effect for ***OARS knowledge*** from ***pre-test*** (M = 1.07, SD = 0.85) to ***post-test*** (M = 2.39, SD = 0.99), F (1, 71) = 37.67, p = .000, partial η^2 = .35, and a marginally statistically significant effect for ***EDs knowledge*** from ***pre-test*** (M = 3.23, SD = 0.94) to ***post-test*** (M = 3.81, SD = 1.49), F (1, 71) = 3.85, p = .054, partial η^2 = .05. Plots for the increases in OARS and EDs knowledge pre-test to post-test are displayed in Figure 1. Additionally, the means and standard deviations are included in Table 4.

Overall, there was not a statistically significant interaction effect between time and condition. Both the MI and Q&A conditions comparably impacted knowledge acquisition. The main effect for time indicated, however, that students in both conditions improved in their knowledge of the core material. All mean knowledge scores improved in the expected directions. Specifically, gains in knowledge of EDs and OARS were most pronounced.

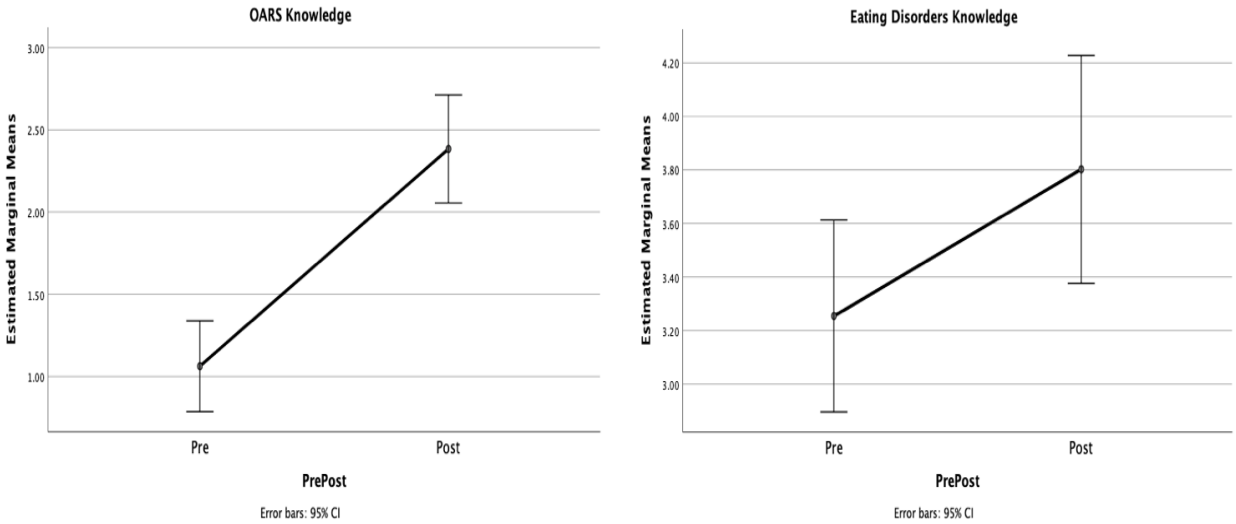


Figure 1. Estimated marginal means for OARS and EDs knowledge during time

Table 4. Means and Standard Deviations for Knowledge Variables within Time

Knowledge Variables		Pre		Post		Total	
		M	SD	*M*	SD	*M*	SD
OARS	QA	1.13	0.9	2.27	1.1	1.56	1.12
	MI	1	0.79	2.5	0.89	1.67	1.12
	Total	1.07	0.85	2.39	0.99	1.61	1.11
Righting Reflex	QA	0.92	1.21	1.27	1.22	1.05	1.21
	MI	0.5	0.95	1	1.21	0.72	1.09
	Total	0.73	1.11	1.13	1.2	0.89	1.16
Listening	QA	2.71	0.69	2.73	0.8	2.72	0.72
	MI	2.8	0.41	2.87	0.5	2.83	0.45
	Total	2.75	0.58	2.81	0.65	2.77	0.61
Eating Disorder	QA	2.96	0.95	3.67	1.72	3.23	1.33
	MI	3.55	0.83	3.94	1.29	3.72	1.06
	Total	3.23	0.94	3.81	1.49	3.47	1.22

RQ 2

RQ 2 asked if adolescents who participated in the MI activity during an EDs listening intervention would increase their self-efficacy more than those who participated in the Q&A section during an EDs listening intervention. A two-by-two univariate (ANOVA) analysis was conducted with self-efficacy as the dependent variable, and 1) condition and 2) time as the fixed factors.

In all, there was not a statistically significant univariate interaction effect between condition and time variables, F (1, 69) = 1.08, p = .302, partial η^2 = .02. Similarly, there was no significant univariate main effect for time on self-efficacy, F (1, 69) = 1.15, p = .288, partial η^2 = .02. However, there was a marginally significant univariate main effect for **condition** on **self-efficacy**: **Q&A** (M = 5.21, SD = 1.45); **MI** (M = 5.81, SD = 1.35), F (1, 69) = 3.84, p = .054, partial η^2 = .05. Figure 2 illustrates the main effect for condition on self-efficacy, and Figure 3 illustrates the main effect for time by condition on self-efficacy. Table 5 shows the means and standard deviations for condition on self-efficacy.

Overall, there was not a statistically significant interaction effect between condition and time. The main effect for condition indicated, however, that students in the MI condition had higher self-efficacy scores than those in the Q&A condition. Though the interaction was not significant, it does appear that the main differences in these means was due to a stronger difference between the scores at post-test (Figure 3). Given that this analysis was underpowered to adequately examine interaction effects, ad-hoc one-tailed t-tests examining differences in self-efficacy between MI and Q&A conditions at both pre-test and post-test were conducted. This is justified given the directional research question that self-efficacy would be improved more for the MI condition than the Q&A condition. This analysis supports the RQ. A one-tailed independent t-test at the pre-test phase revealed no differences (t = -.704, p = .243) but at post-test, self-efficacy was higher for MI compared to the Q&A condition (t = -2.001, p = .027).

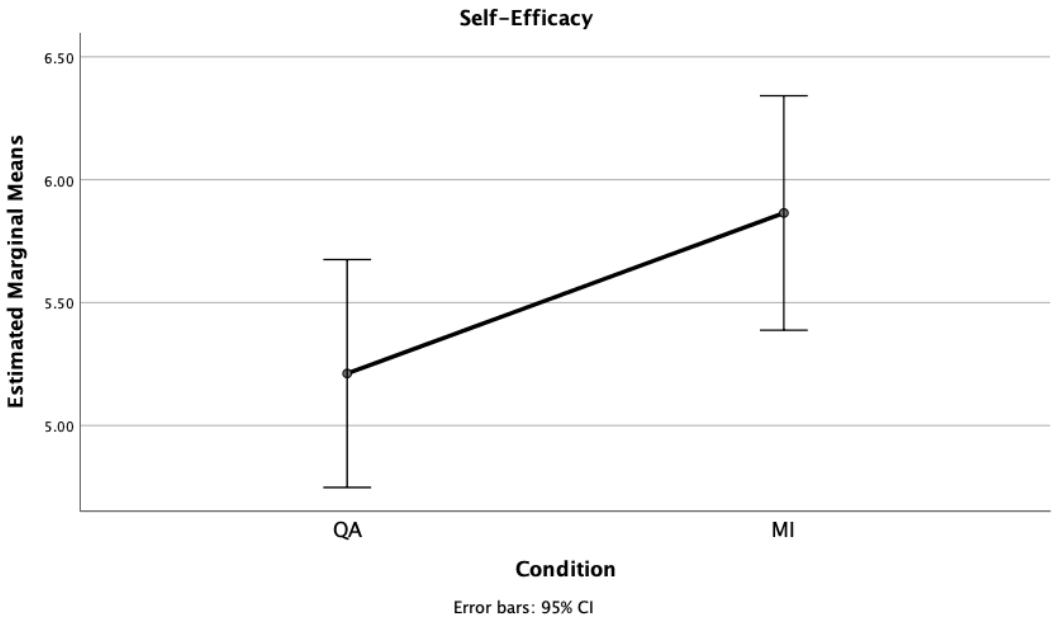


Figure 2. Estimated marginal means for condition on self-efficacy

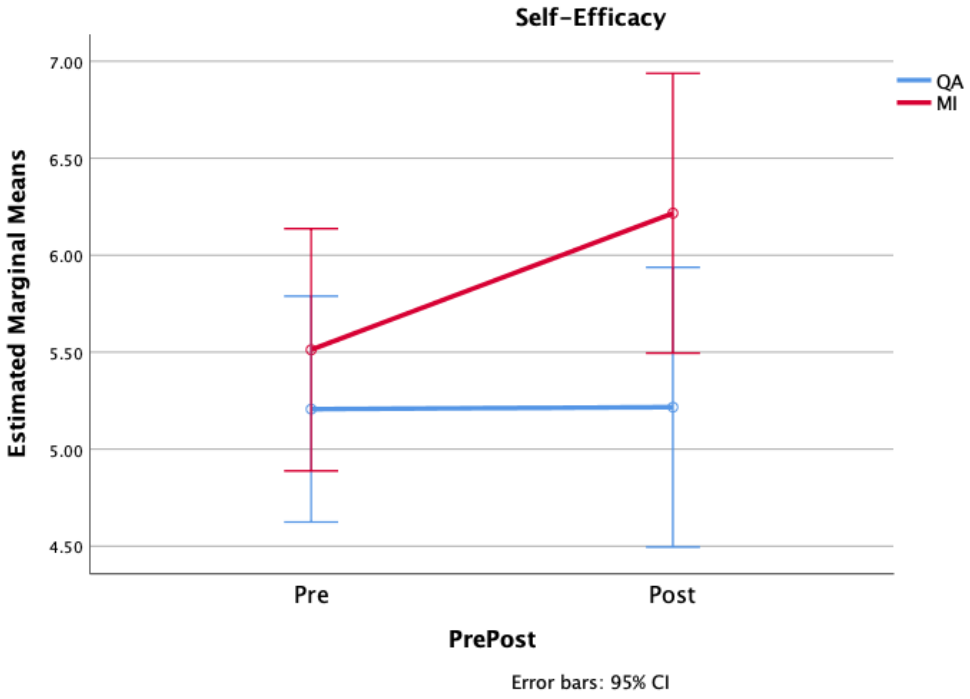


Figure 3. Estimated marginal means for time by condition on self-efficacy

Table 5. Means and Standard Deviations for Condition on Self-Efficacy

		Pre		Post		Total	
Variable		*M*	*SD*	*M*	*SD*	*M*	*SD*
Self-Efficacy	QA	5.21	1.33	5.22	1.67	5.21	1.45
	MI	5.51	1.52	6.22	0.97	5.81	1.35
	Total	5.35	1.41	5.72	1.44	5.50	1.42

RQs 3a-d

RQ 3a-d asked if there were any differences in knowledge about OARS, the righting reflex, listening, and EDs among adolescents at School 1 and School 2 after the EDs listening intervention. To address these RQs, a two-by-two univariate analysis (ANOVA) was implemented with 1) OARS knowledge, 2) the righting reflex knowledge, 3) listening knowledge, and 4) EDs knowledge, individually, as the dependent variable, time as a fixed factor, and school as a random factor.

OARS Knowledge

Overall, there was not a statistically significant univariate interaction effect between time and school variables, F (1, 71) = .06, p = .815, partial η^2 = .001. Similarly, there was no significant univariate main effect for school on OARS knowledge, F (1, 71) = 9.70, p = .198, partial η^2 = .91. However, there was a significant univariate main effect for ***time*** on ***OARS knowledge***: ***pre-test*** (M = 1.07, SD = .85); ***post-test*** (M = 2.39, SD = .99), F (1, 71) = 520.56, p = .028, partial η^2 = .998. Figure 4 illustrates the main effect for time by school on OARS knowledge, and Table 6 shows the means and standard deviations for time on OARS knowledge.

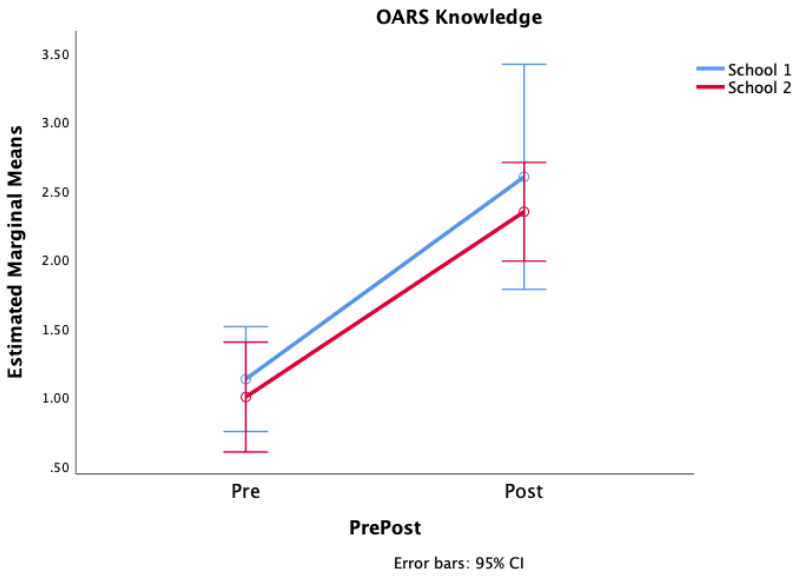


Figure 4. Estimated marginal means for time by school on OARS knowledge

Table 6. Means and Standard Deviations for Time on OARS Knowledge

		Pre		Post		Total	
Knowledge Variable		*M*	*SD*	*M*	*SD*	*M*	*SD*
OARS	School 1	1.13	0.97	2.60	0.55	1.39	1.07
	School 2	1.00	0.71	2.35	1.06	1.74	1.13
	Total	1.07	0.85	2.39	0.99	1.61	1.11

Righting Reflex Knowledge

Overall, there was not a statistically significant univariate interaction effect between time and school variables, F (1, 71) = 1.00, p = .320, partial η^2 = .01 Similarly, there was no significant univariate main effect for time on righting reflex knowledge, pre (M = .73, SD = 1.11), post (M = 1.13, SD = 1.20), F (1,71) = 2.31, p = .371, partial η^2 = .698, and no significant univariate main effect for school on righting reflex knowledge, School 1 *(*M = .71, SD = 1.01), School 2 (M = 1.00, SD = 1.23), F (1, 71) = .001, p = .984, partial η^2 = .001.

Listening Knowledge

Overall, there was not a statistically significant univariate interaction effect between time and the school variables, F (1, 71) = .52, p = .475, partial η^2 = .01. Similarly, there was no significant univariate main effect for time on listening knowledge, pre (M = 2.75, SD = .58), post

(M = 2.81, SD = .65), F (1,71) = 1.12, p = .482, partial η^2 = .53, and no significant univariate main effect for school on listening knowledge: School 1 (M = 2.79, SD = .50), School 2 (M = 2.77, SD = .67), F (1, 71) = .67, p = .563, partial η^2 = .40.

EDs Knowledge

Overall, there was not a statistically significant univariate interaction effect between time and the school variables, F (1, 71) = .033, p = .856, partial η^2 = .00. Similarly, there was no significant univariate main effect for School on EDs knowledge, F (1, 71) = 41.93, p = .098, partial η^2 = .98. However, there was a significant univariate main effect for *time* on *EDs knowledge*: *pre-test* (M = 3.23, SD = .94); *post-test* (M = 3.81, SD = 1.49), F (1, 71) = 141.20, p = .053, partial η^2 = .99. Figure 5 illustrates the main effect for time by school on EDs knowledge, and Table 7 shows the means and standard deviations for time on EDs knowledge.

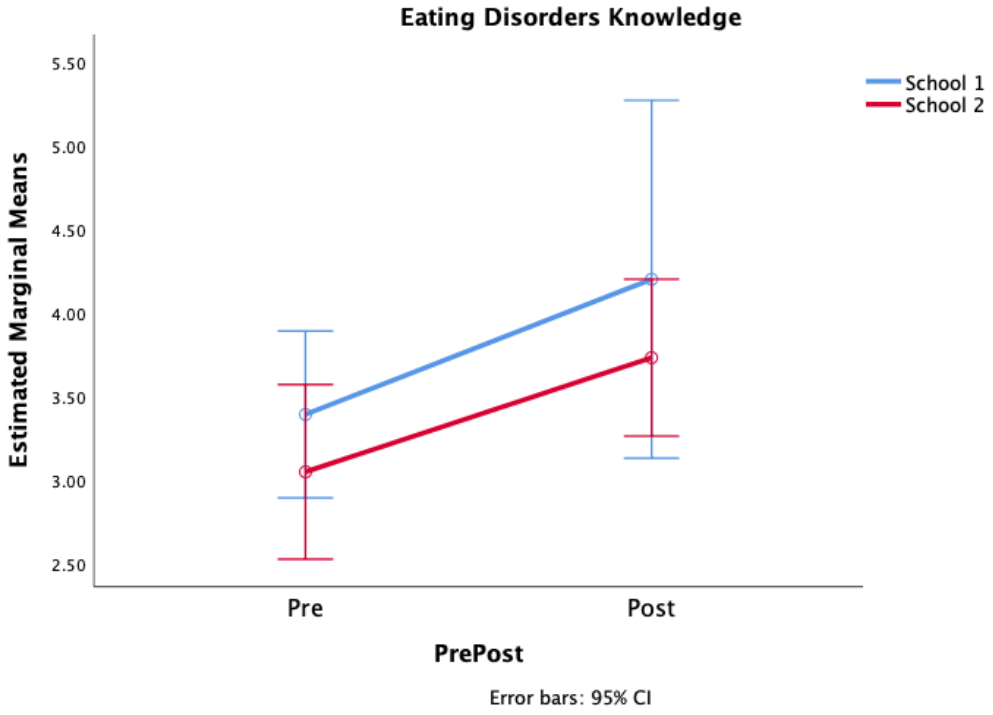


Figure 5. Estimated marginal means for time by school on EDs knowledge

Table 7. Means and Standard Deviations for Time on EDs Knowledge

		Pre		Post		Total	
Knowledge Variable		*M*	*SD*	*M*	*SD*	*M*	*SD*
Eating Disorders	School 1	3.39	0.99	4.20	0.84	3.54	1.00
	School 2	3.05	0.86	3.73	1.59	3.43	1.35
	Total	3.23	0.94	3.81	1.49	3.47	1.22

Overall, results for RQ 3a-d indicated that School 1 and School 2 observed comparable increases in knowledge acquisition from pre-test to post-test, regardless of which condition participants were in. Specifically, gains with EDs approached significance and OARS gains were statistically significant.

RQs 4a-d

RQ 4a-d asked if there were any differences in knowledge about, OARS, the righting reflex, listening, and EDs among adolescents identifying as male or identifying as female after the EDs listening intervention. The researcher wanted to include various gender identities but the sample size was too small to report differences (i.e., one answered "preferred not to say"). To address this research question, a two-by-two multivariate analysis (MANOVA) was implemented with 1) OARS knowledge, 2) the righting reflex knowledge, 3) listening knowledge, and 4) EDs knowledge as the dependent variables and 1) gender identity and 2) time as the fixed factors.

Overall, there was not a statistically significant multivariate interaction effect between time and gender identity, F (4, 67) = .74, p = .567, Wilks' Λ = .96, partial η^2 = .04. Similarly, there was no significant multivariate main effect for gender identity, F (4, 67) = 1.66, p = .170, Wilks' Λ = .91, partial η^2 = .09. However, there was a significant multivariate main effect for ***time***, F (4, 67) = 8.34, p = .000, Wilks' Λ = .67, partial η^2 = .33.

Given the multivariate main effect for time the between subject's effects for each of the DVs associated with time was investigated. There was not a statistically significant effect between time for righting reflex knowledge, F (1, 70) = 1.86, p = .178, partial η^2 = .03, and for listening knowledge, F (1, 70) = .003, p = .960, partial η^2 = .00. However, there was a significant effect for ***OARS knowledge*** from ***pre-test*** (M = 1.07, SD = 0.86) and ***post-test*** (M = 2.39, SD = .99), F (1, 70) = 33.63, p = .000, partial η^2 = .32, and ***EDs knowledge*** approached significance

from ***pre-test*** (M = 3.23, SD = 0.95) and ***post-test*** (M = 3.81, SD = 1.49), F (1, 70) = 3.11, p = .082, partial η^2 = .04. Figure 6 contains the plots for time by gender identity on OARS knowledge and the means and standard deviations are included in Table 8.

Overall, results for RQ 4a-d indicate there was not a significant interaction effect between time and gender identity. However, as previous analyses have shown, there was a marginal improvement over time with EDs knowledge and a significant improvement over time with OARS knowledge (Figure 6*)*. Therefore, those identifying as males and females did not differ in their knowledge scores.

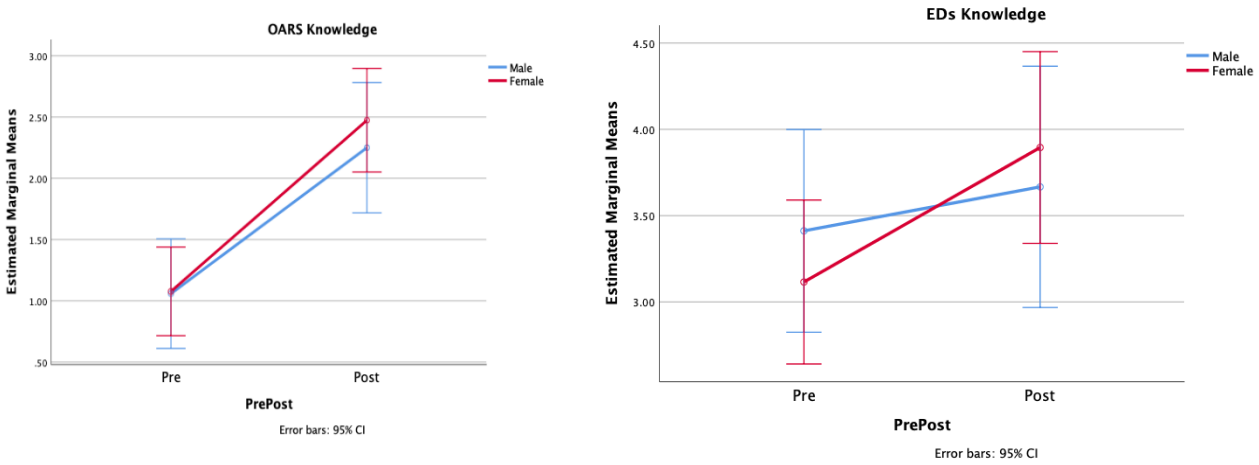


Figure 6. Estimated marginal means for time by gender identity on OARS knowledge and EDs knowledge

Table 8. Means and Standard Deviations for OARS Knowledge within Time

		Pre		Post		Total	
Knowledge Variables		*M*	*SD*	*M*	*SD*	*M*	*SD*
OARS	Male	1.06	0.90	2.25	1.22	1.55	1.18
	Female	1.08	0.84	2.47	0.84	1.67	1.09
	Total	1.07	0.86	2.39	0.99	1.62	1.12
Righting Reflex	Male	1.12	1.41	1.42	1.31	1.24	1.35
	Female	0.50	0.81	0.95	1.13	0.69	0.97
	Total	0.74	1.11	1.13	1.20	0.91	1.16
Listening	Male	2.82	0.39	2.58	1.00	2.72	0.70
	Female	2.69	0.68	2.95	0.23	2.80	0.55
	Total	2.74	0.58	2.81	0.65	2.77	0.61
Eating Disorders	Male	3.41	0.94	3.67	1.67	3.52	1.27
	Female	3.12	0.95	3.89	1.41	3.44	1.22
	Total	3.23	0.95	3.81	1.49	3.47	1.23

RQ 5

RQ 5 asked if there were any differences among adolescents at School 1 and School 2 when it came to the improvement among self-efficacy after the EDs listening intervention. A two-by-two univariate analysis (ANOVA) was implemented with self-efficacy as the dependent variable, and 1) school and 2) time as the fixed factors.

Overall, there was not a statistically significant univariate interaction effect between time and school variables, F (1, 69) = .58, p = .451, partial η^2 = .01. Similarly, there was no significant univariate main effect for time: pre-test (M = 5.35, SD = 1.41), post-test (M = 5.72, SD = 1.44), on self-efficacy, F (1, 69) = .03, p = .860, partial η^2 = .00, and no significant univariate main effect for school, School 1 (M = 5.20, SD = 1.69), School 2 (M = 5.69, SD = 1.22), on self-efficacy, F (1, 69) = 1.77, p = .187, partial η^2 = .03.

Overall, results regarding RQ 5 indicated that there was not a significant interaction effect between time and school. The pattern of the results indicated that self-efficacy did not differ between schools. Basically, self-efficacy remained level.

RQ 6

RQ 6 asked if there were any differences in self-efficacy among adolescents identifying as male or identifying as female after the EDs listening intervention. The researcher wanted to

include various gender identities but the sample size was too small to report differences (i.e., one answered "preferred not to say"). A two-by-two univariate analysis (ANOVA) was implemented with self-efficacy as the dependent variable, and 1) gender identity and 2) time as the fixed factors.

Overall, there was not a statistically significant univariate interaction effect between time and gender identity variables, F (1, 68) = .23, p = .637, partial η^2 = .003. Similarly, there was no significant univariate main effect for time on self-efficacy, F (1, 68) = 1.12, p = .294, partial η^2 = .02. However, there was a significant univariate main effect for ***gender identity*** on ***self-efficacy***: ***male*** (M = 4.95, SD = 1.15); ***female*** (M = 5.85, SD = 1.50), F (1, 68) = 7.74, p = .007, partial η^2 = .10. Figure 7 illustrates the main effect for time by gender identity on self-efficacy, and Table 9 includes the means and standard deviations.

Overall, results for RQ 6 indicated there was a main effect for gender identity, indicating improvement in self-efficacy. Specifically, gains in self-efficacy of those who identify as female were slightly more pronounced, but this finding was not significant.

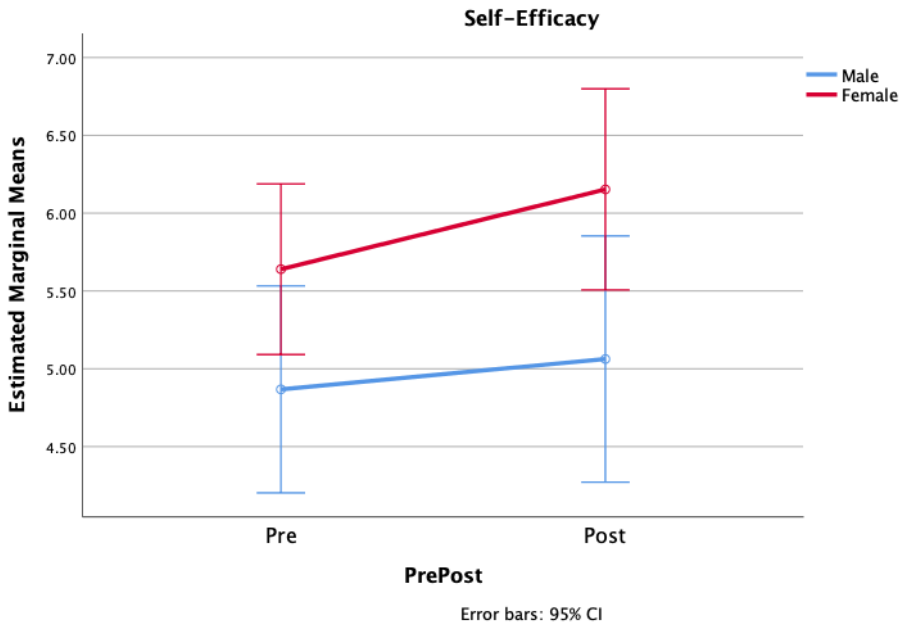


Figure 7. Estimated marginal means for time by gender identity on self-efficacy

Table 9. Means and Standard Deviations for Gender Identity on Self-Efficacy

		Pre		Post		Total	
Variable		*M*	*SD*	*M*	*SD*	*M*	*SD*
Self-Efficacy	Male	4.87	1.22	5.06	1.08	4.95	1.15
	Female	5.64	1.49	6.15	1.51	5.85	1.50
	Total	5.33	1.42	5.72	1.44	5.49	1.43

In summary, time improved knowledge, especially in two areas (e.g., OARS and EDs), MI and Q&A, had similar effects. Similarly, females reported higher levels of self-efficacy than males, but females did not significantly improve in self-efficacy from pre-test to post-test. Additionally, the MI condition improved self-efficacy from pre-test to post-test. These patterns of results seem consistent across both schools that received these interventions. Overall findings, theoretical implications, practical implications, limitations, future research, and conclusion are discussed in the final chapter of this dissertation.

CHAPTER 4. DISCUSSION

The final chapter of this dissertation consisted of six parts: 1) overall findings, 2) theoretical implications, 3) practical implications, 4) limitations, 5) future research, and 6) conclusion.

Overall Findings

The overall goal of this study of a listening during disclosure of EDs intervention, was to develop and implement the intervention with adolescents in a school setting. The intervention was designed to teach adolescents effective listening skills during peer disclosure of EDs with adolescents. Specifically, the intervention was designed to increase EDs knowledge, listening knowledge, and listening efficacy among adolescents. Ultimately, the goal of the intervention was to provide those struggling with EDs an empathetic environment.

The researcher developed and tested the intervention and associated materials. This study also provided the researcher the opportunity to practice the intervention within schools. As a result, a collaboration occurred between a large midwestern university, a local organization specializing in EDs, and middle schools within the same community. This study also allowed the researcher to demonstrate how this approach can provide information to adolescents about local EDs listening resources. Lastly, this study allowed the researcher to offer teachers information that can be applied in future classes and other situations.

The survey results indicated a promise of efficacy. The evidence suggests that participants gained knowledge about EDs and aspects of listening, specifically through MI (e.g., OARS), via participation in the intervention. Means of other areas of knowledge improved but were not statistically significant. The lack of statistical significance was likely due to insufficient statistical power to detect differences. Also, there were no differences in knowledge gains between the MI and Q&A groups, which could be because MI and Q&A taught the same content. However, MI compared to Q&A showed a more substantial impact on self-efficacy. MI's influence on self-efficacy could be due to the theoretical implications of MI on behavior change (i.e., by helping one change their behavior can impact how one feels about changing that behavior), as well as confirming research that shows that role-playing/ an applied activity within

the context of an intervention is more effective than education-only (Norman et al., 2010; Rhodes et al., 2019; Whatnall et al., 2018).

Theoretical Implications

Motivational Interviewing and a Person-Centered Approach (Miller & Rollnick, 2013; Rogers, 1979; Wosket, 2006) guided this dissertation project. Additionally, the concept of active listening influenced development of the intervention and the pre-test and post-test surveys. Consequently, this dissertation project extended existing research within MI and EDs by attempting to increase knowledge and self-efficacy through educating adolescents within schools and not just those currently struggling with EDs.

This study found that an MI approach was not significant to increasing participants' knowledge but was significant to increasing self-efficacy regarding EDs and listening. MI's influence on self-efficacy makes sense because MI is a tool that helps with behavior change (Miller & Rollnick, 2013). Specifically, since self-efficacy is outlined as having the belief and confidence one can accomplish a behavior, self-efficacy is frequently tied to behavior (Marcus et al., 1992; Schunk, 1984, 1989). In other words, MI provides skills-based information rather than academic knowledge. Thus, resulting in increased self-efficacy more than increased knowledge. However, there were cases when students reported higher self-efficacy pre-intervention rather than post-intervention, which inflated results, and may suggest that they held a strong perception in their ability prior to the presentation more so than after. In other words, the presentation may provide students with information they were not aware of, resulting in their self-efficacy not improving.

Kruger and Dunning (1999) examined this phenomenon and referred to it as "overconfidence" (p. 1132). Specifically, they noticed individuals believe they know and can do things (e.g., logical reasoning and grammar, humor) more so than those around them (e.g., peers). In other words, they may not be aware of their lack of ability. Whereas those who do know and can do many things may tend to be less confident in their abilities compared to those around them (Kruger & Dunning, 1999). Therefore, overconfidence could influence participants' assessment of self-efficacy, especially before the education intervention.

Moore and Tananis (2009) explored the same concept and referred to Howard, Schmeck, and Bray's (1979) "response-shift bias," which refers to "when a participant uses a different

internal understanding of the construct being measured to complete the pretest and the posttest" (Moore & Tananis, 2009, p. 190). Response-shift bias occurs within situations where educational interventions aim to increase knowledge/awareness of a particular topic assessed (Moore & Tananis, 2009). For example, within this dissertation, the aim was to increase the knowledge and self-efficacy of EDs listening and measured that construct. The results were that self-efficacy generally did not appear to improve from pre-intervention to post-intervention. Suggesting students had an elevated sense of their ability to engage in effective listening at pre-test. Specifically, participants could have believed that they were good listeners, even within the context of EDs. For example, MI did improve self-efficacy more than Q&A condition. This finding is consistent with theory in that MI is geared to enhancing self-efficacy more so than technical knowledge of a topic. Now that the theoretical implications of this study have been addressed, the next section will discuss the practical implications from the results of this study.

Practical Implications

A few practical implications of this dissertation project include increasing collaborations within the community, awareness of local resources on EDs, communication tips and skills that can benefit both teachers and students. First, this project was based on a need the researcher noticed within the community to train individuals to listen to those struggling with EDs. Specifically, the researcher worked with a local organization that helps educate the community about EDs. Additionally, the researcher reached out to schools, specifically counselors and health teachers, who recognized the need for the conversations regarding EDs to increase and improve. Other stakeholders within this study were parents since their consent influenced whether or not specific data was obtained. Thus, implying the importance of establishing good relationships with many individuals within the community. Based on this dissertation project, the researcher suggests establishing strong connections with all stakeholders and other researchers within the realms of education before conducting the intervention. For example, to increase the number of parents/guardians who provide consent for their adolescent to participate in the evaluation of the intervention, the researcher could host a separate presentation for parents/guardians. During this presentation, the researcher could provide the opportunity for parents/guardians to talk with the researchers and learn more about the intervention involving their children. This could both educate the parents/guardians on the topic of the intervention and

help the researcher establish a relationship with them that may encourage the parents/guardians to provide consent. Overall, these collaborations may be challenging, they are possible and can be effective in education and training.

Second, this dissertation project introduced teachers and adolescents within the community about a local resource they can contact if they have questions or need information and assistance around the topic of EDs. Further, they can inform their coworkers and peers about the information they obtained, which can benefit them and their family, friends, and acquaintances (i.e., via word-of-mouth). Specifically, they could share with other teachers and administrators yet to receive this training and advocate for more of this training in their schools. This may result in the spread of knowledge and listening self-efficacy about EDs within the community.

Third, this dissertation project provided the adolescents and teachers with important communication tips/skills (e.g., listening, MI) applicable to other health and general contexts. This supports past research emphasizing the need for listening to be taught within schools (Janusik, 2002; Miller, 2018; Wolvin & Coakley, 1996). Exposure to these communication skills may aid in the development of future interventions within the school setting, within similar health contexts, and within local community organizations (e.g., Boys and Girls Club). In addition, teachers could continue incorporating aspects of MI within their classrooms to strengthen their teaching techniques. Specifically, teachers continuing these lectures within the local middle and high schools can help adolescents and teachers be aware of behaviors to look out for within themselves and others that could aid in preventing EDs behaviors from emerging.

Similarly, continuing similar lectures within middle and high schools could help adolescents and teachers intervene if they notice similar behavior changes. Additionally, continuing these lectures within local schools can assist in increasing adolescents' self-efficacy when it comes to listening within the context of EDs and could aid in increasing self-efficacy when it comes to listening in a variety of contexts. As a result, similar lectures may help those struggling with EDs potentially seek the help needed.

Limitations

A few limitations of this research project were evident including limited guardian/parental consent and COVID-19. There were challenges in achieving guardian/parental consent. Although

overall student participation was good, many guardians/parents did not respond to provide consent even after being reminded a handful of times by the researcher, teachers, and their children. This had an adverse impact on the amount of data collected and the subsequent data analyses. For instance, with the pre-test, 217 students completed the pre-test, but only 44 were retained, and with the post-test, 168 students completed the post-test, but only 31 were retained.

The lower alphas found within this study could be due to the small sample size. Furthermore, the lower alphas could be due to the number of questions, precisely, the need for more questions and more robust questions (Tavakol, & Dennick, 2011). Additionally, the researcher could have pilot tested the survey questions for effectiveness.

Another limitation of this study was that due to the COVID-19 pandemic, the intervention could not always be presented in the preferred face-to-face format. One school preferred the guest lecture be implemented via Zoom, while students in the classroom joined the meeting virtually. In contrast, the other school required the guest lecture to be conducted in person (with face masks and from a social distance). This resulted in conflation of the school system with delivery format (i.e., between online and in-person guest lectures). In other words, the delivery format may have influenced the learning environment. However, a limitation of this study's design was the conflation of the schools system delivery format. Therefore, results of the intervention cannot conclude there were no differences.

Lastly, DARVO was addressed within the intervention but was not explored specifically within the survey, minus one question. Therefore, future research could explore DARVO as an RQ or hypothesis.

Future Research

There are many avenues to extend this project through future research, including improving teachers' ability to utilize MI within a school setting, implementing a similar study within different states and countries to examine the similarities and differences, investigating how the format (e.g., online vs. in-person) of an intervention/guest lecture influences outcomes, exploring how MI improves self-efficacy more than a Q&A condition and how MI is geared to enhancing self-efficacy more so than technical knowledge of a topic, studying how to improve the guardian and parental consent process, and alternative strategies for presenting and assessing the content of the intervention.

First, researchers should consider developing, implementing, and evaluating interventions that improve teachers' ability to utilize *MI* within secondary education. Precisely how teachers can personally use MI listening techniques to help better connect with students and coworkers, and how teachers can teach those techniques to their students in various contexts (e.g., substance abuse, mental health, etc.).

Second, future researchers could implement a similar study with more local schools and conduct a comparative analysis between schools from different locations. In other words, these schools could be in different cities, states, and even countries to see how effective the intervention is in various contexts. For example, researchers could implement a similar study at local middle schools on the west and east coasts of the United States and compare those results. Researchers could conduct a similar study in all the states within the United States and see the differences among states. Future researchers could also implement this same study within different countries. For example, researchers could conduct a similar study in Italy, India, and Australia and compare results. Through this, if one were able to get a significant sample size, they could see the differences not only by countries but also by continents.

Third, future researchers could explore how the format (e.g., online vs. in-person) of an intervention/guest lecture influences the intervention outcomes. In other words, they could compare results from the guest lectures presented in the following formats, with both the students and guest lecturer being within the classroom, with both the students and guest lecturer being online, with the guest lecture being online and students within the classroom. Specifically, within one school, half of the classes could participate in the intervention virtually and the other half in-person. Additionally, if there are two teachers at one school, half of the classes with one teacher could be virtual and the other half could be in-person and the same would apply to the other teacher.

One result of such a study may help researchers understand if those who learn online are more easily distracted than those learning within the classroom. A recent study by Cockerham and colleagues (2021) examined how adolescents have been impacted by and adapted to COVID-19. Specifically, participants completed surveys as well as participating in a dyadic 30-minute interview (Cockerham et al., 2021). Some of their findings included 1) "lack of engagement" (i.e., if virtual, can be on the phone during lecture), 2) "decreased interest" (i.e., less motivation), the 3) "the importance of teacher-student relationship" (i.e., preference for in-

person compared to virtual classes), and 4) valuing the ability to work online alone (Cockerham et al., 2021, p. 14-15). Similarly, further examining how the format of an intervention may impact improvement or deterioration in knowledge and self-efficacy would be interesting.

Fourth, future research could further explore how MI improved self-efficacy more than the Q&A condition, specifically if these similar results would be found within different states and countries and within various topics (e.g., menstruation, sexual health, etc.). Future researchers could further explore how MI is geared to enhancing self-efficacy more so than technical knowledge of a topic and changes within different health contexts and locations (i.e., other states and countries).

Fifth, future research could also study how to improve the guardian and parental consent process. Specifically, what format (e.g., electronic, paper, email, texting) would guardians/parents be more likely to respond to and why? Additionally, what days and times are best to contact guardian/parents? As well as how frequently should reminders be sent and why? As well as if incentives have an impact? For example, what types of incentives are practical, such as being placed within a drawing for a chance to win a gift card.

Sixth, in future studies an alternative strategy could be used to present the content of the intervention and assess learning of the topics discussed within this intervention. For example, to assess knowledge of EDs and listening, instead of the types of questions asked on the surveys within this study, which seemed to be more based on memory, the questions could be situational. In other words, one could create situations in which concepts discussed within the intervention could be applied. From there, the researcher could create prompts that reflect those concepts within situations that an individual would then need to answer if the situations were completed, reflecting the concepts discussed within the intervention. Through this approach, the researcher could determine individual understanding of the concepts discussed during the intervention.

Additionally, future research could examine how adolescents learn about EDs and listening skills through observation. In other words, adolescents could be placed into small groups (e.g., six people) and then into pairs. From there, each pair could participate in a role-play discussion (i.e., one person is the discloser and one is the listener), while the others in the group observe the interaction. Thus, classes could be divided into two conditions 1) pairs in a role play about EDs while being observed by others in a group or 2) pairs engaging in the role play minus the observation.

Moreover, it would be interesting to utilize a social media platform to help students learn about EDs and listening skills. For example, in addition to the in-class lecture on ED and listening, the researcher could create short video clips that touch upon concepts discussed within intervention. From there, the effectiveness of not only the lecture but also the videos could be assessed. Using a social media platform to supplement information learned within the classroom could help reinforce the content while taking advantage of a platform that many adolescents are engaged with.

In all, the final chapter of this dissertation consisted of six parts: 1) overall findings, 2) theoretical implications, 3) practical implications, 4) limitations, 5) future research, and 6) conclusion. The conclusion of this dissertation is discussed next.

Conclusion

In conclusion, this study aimed to increase the knowledge and self-efficacy of adolescents on EDs listening. The creation, implementation, and evaluation of this evidence-based and theoretically-grounded intervention provided the opportunity to practice this intervention with adolescents. Adolescents were the participants of this study because many EDs begin when individuals go through adolescence (Currin et al., 2005; Treasure et al., 2011). EDs listening was discussed because many are not taught listening skills within the school (Janusik, 2002; Miller, 2018; Wolvin & Coakley, 1996). and PCA, MI/BMOI (i.e., specifically OARS and righting reflex) were utilized because of the focus on individualized experiences and situations (Miller & Rollnick, 2013). Additionally, MI has proven to be effective within the context of EDs (Cassin & Geller, 2015; Treasure et al., 2011).

Online surveys were utilized for this study because during the COVID-19 pandemic, this approach was deemed to be the most accessible. Pre-tests and post-tests were implemented because the researcher wanted to see participants' baseline data on EDs listening and improvements after the guest lecture/intervention. Obtaining guardian/parental consent was a significant limitation of this study and led to a small sample size. Another limitation was conducting this study during the COVID-19 pandemic because some presentations were online and others were in person, causing conflation of the school system delivery format.

In all, the results of this study demonstrated a promise of efficacy and increased knowledge regarding EDs and aspects of listening, specifically through MI (e.g., OARS). Other areas of

knowledge did improve but not significantly. Therefore, there were no differences in knowledge gains between MI and Q&A, but MI compared to Q&A showed a more substantial impact on self-efficacy. This intervention seems to be planting the seed within adolescents, teachers, a university, a local organization, and middle schools that may continue to grow and aid the members within the community together for years to come.

REFERENCES

Afifi, W. A., & Caughlin, J. P. (2006). A close look at revealing secrets and some consequences that follow. *Communication Research*, *33*(6), 467-488. https://doi.org/10.1177/0093650206293250

Afifi, T., & Steuber, K. (2009). The revelation risk model (RRM): Factors that predict the revelation of secrets and the strategies used to reveal them. *Communication Monographs*, *76*(2), 144-176. https://doi.org/10.1080/03637750902828412

Ali, K., Farrer, L., Fassnacht, D. B., Gulliver, A., Bauer, S., & Griffiths, K. M. (2017). Perceived barriers and facilitators towards help-seeking for eating disorders: A systematic review. *International Journal of Eating Disorders*, *50*(1), 9-21. https://doi.org/10.1002/eat.22598

Anorexia Nervosa and Associated Disorders (ANAD). (2019). *Eating disorder statistics.* http://www.anad.org/education-and-awareness/about-eating-disorders/eating-disorders-statistics/

Anorexia Nervosa and Associated Disorders (ANAD). (2021). *Eating disorder statistics.* http://www.anad.org/education-and-awareness/about-eating-disorders/eating-disorders-statistics/

Anorexia Nervosa & Related Eating Disorders (ANRED). (2019). *Who is at risk for developing an eating disorder?* https://www.anred.com/who.html

American Psychiatric Association (APA). (2020). *Diagnostic and statistical manual of mental disorders (DSM-5).* https://www.psychiatry.org/psychiatrists/practice/dsm

Arcelus, J., Mitchell, A. J., Wales, J., & Nielsen, S. (2011). Mortality rates in patients with Anorexia Nervosa and other eating disorders: A meta-analysis of 36 studies. *Archives of General Psychiatry, 68*(7), 724-731. doi:10.1001/archgenpsychiatry.2011.74

Austin, S. B. (2012). A public health approach to eating disorders prevention: It's time for public health professionals to take a seat at the table. *BMC Public Health*, *12*(1), 854. https://doi.org/10.1186/1471-2458-12-854

Austin, S. B., & Sonneville, K. R. (2013). Closing the "know-do" gap: training public health professionals in eating disorders prevention via case-method teaching. *International Journal of Eating Disorders*, *46*(5), 533-537. https://doi.org/10.1002/eat.22111

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman & Co.

Bear, J. S., Beadnell, B., Garrett, S. B., Hartzler, B., Wells, E. A., & Peterson, P. L. (2008). Adolescent change language within a brief motivational intervention and substance use outcomes. *Psychology of Addictive Behaviors*, *22*(4), 570-575. doi:10.1037/a0013022

Beard, D., & Bodie, G. D. (2014). Listening research in the Communication discipline. In P. J. Gehrke & W. M. Keith (Eds.), *The unfinished conversation: 100 years of Communication Studies.* Routledge.

Beat Eating Disorders. (2018a). *Time to change the stigma.* https://www.beateatingdisorders.org.uk/your-stories/time-to-change-stigma

Beat Eating Disorders. (2018b). *The old me.* https://www.beateatingdisorders.org.uk/your-stories/creative-corner/the-old-me

Becker-Blease, K. A., & Freyd, J. J. (2006). Research participants telling the truth about their lives: The ethics of asking and not asking about abuse. *American Psychologist*, *61*(3), 218-226. DOI: 10.1037/0003-066X.61.3.218

Bentley, S.C. (1997). Benchmarking listening behaviors: Is effective listening what the speaker says it is? *International Journal of Listening, II*, 51-68. https://doi.org/10.1207/s1932586xijl1101_4

Berger, C. R. (2011). Listening is for acting. *The International Journal of Listening*, *25*(1-2), 104-110. https://doi.org/10.1080/10904018.2011.536477

Bernstein, B. (1975). *Class, codes, and control: Theoretical studies toward a sociology of language* (Rev. ed.). Schocken.

Bodie, G. D. (2009). Evaluating listening theory: Development and illustration of five criteria. *The Intl. Journal of Listening*, *23*(2), 81-103. https://doi.org/10.1080/10904010903014434

Bodie, G. D. (2011). The Active-Empathic Listening Scale (AELS): Conceptualization and evidence of validity with the interpersonal domain. C*ommunication Quarterly, 59*(3), 277-295. https://doi.org/10.1080/01463373.2011.583495

Bodie, G. D. (2012). Listening as positive communication. In T. Socha & Pitts, M. (Eds.), The *Positive Side of Interpersonal Communication* (pp. 109-125). Peter Lang.

Bodie, G. D. (2013). Issues in the measurement of listening. *Communication Research Reports, 30*(1), 76-84. https://doi.org/10.1080/08824096.2012.733981

Bodie, G. D., Vickery, A. J., & Gearhart, C. C. (2013). The nature of supportive listening, I: Exploring the relation between supportive listeners and supportive people. *International Journal of Listening*, *27*(1), 39-49. https://doi.org/10.1080/10904018.2013.732408

Burgoon, J. K., Guerrero, L. K., & Floyd, K. (2010). *Nonverbal Communication*. Allyn & Bacon.

Burleson, B. R. (1989). The constructivist approach to person-centered communication: Analysis of a research exemplar. In B. A. Dervin, L. Grossberg, B. J. O'Keefe, & E. Wartella (Eds.), *Rethinking communication* (Vol. 2) *Paradigm exemplars* (pp. 29–46). Sage Publications.

Burleson, B. R., Delia, J. G., & Applegate, J. L. (1995). The socialization of person-centered communication: Parents' contributions to their children's social-cognitive and communication skills. In M.A. Fitzpatrick & A. L. Vangelisti (Eds.), *Explaining family interaction* (pp. 34-76). Sage Publications, Inc. https://doi.org/10.4135/9781483326368.n2

Caceres, V. (2020, February 14). *Eating disorders statistics.* U.S. News: Health. https://health.usnews.com/conditions/eating-disorder/articles/eating-disorder-statistics#expert-sources

Cain, S. (2012). *Quiet: The power of introverts in a world that can't stop talking*. Crown Publishing Group.

Campbell, R., Ahrens, C. E., Sefl, T., Wasco, S. M., & Barnes, H. E. (2001). Social reactions to rape victims: Healing and hurtful effects on psychological and physical health outcomes. *Violence and Victims*, *16*(3), 287-302. DOI: 10.1891/0886-6708.16.3.287

Cappella, J. N., & Hornick, R. C. (2010). The importance of communication science in addressing core problems in public health. In D. Carbaugh & P. M. Buzzanell (Eds.), *Distinctive qualities in communication research* (pp. 73-86). New York, NY: Routledge.

Carcieri, E. (2015). *Eating disorders symptoms.* Mirror Mirror Eating Disorders. http://www.mirror-mirror.org/symptom.htm

Casasnovas, C., Fernández-Aranda, F., Granero, R., Krug, I., Jiménez-Murcia, S., Bulik, C. M., & Vallejo-Ruiloba, J. (2007). Motivation to change in eating disorders: Clinical and therapeutic implications. *European Eating Disorders Review: The Professional Journal of the Eating Disorders Association*, *15*(6), 449-456. https://doi.org/10.1002/erv.780

Cassin, S.E., von Ranson, K.M., Heng, K., Brar, J., & Wojtowicz, A.E. (2008). Adapted motivational interviewing for women with binge eating disorder: A randomized controlled trial. *Psychology of Addictive Behaviors, 22*(3), 417-425. https://doi.org/10.1037/0893-164X.22.3.417

Cassin, S. E., & Geller, J. (2015). Motivational interviewing in the treatment of disordered eating. In H. Arkowitz, W. R. Miller & S. Rollnick (Eds.), *Motivational interviewing in the treatment of psychological problems* (pp. 344-364). The Guilford Press.

Cockerham, D., Lin, L., Ndolo, S., & Schwartz, M. (2021). Voices of the students: Adolescent well-being and social interactions during the emergent shift to online learning environments. *Education and Information Technologies*, 1-19. https://doi.org/10.1007/s10639-021-10601-4

Collins, S., & O'Rourke, J. (2008). *Module 5: Interpersonal communication listening and responding*. Cengage Learning.

Currin, L., Schmidt, U., Treasure, J., & Jick, H. (2005). Time trends in eating disorder incidence. *The British Journal of Psychiatry*, *186*(2), 132-135. doi:10.1192/bjp.186.2.132

Daly, J. A., Vangelisti, A. L., & Daughton, S. M. (1987). The nature and correlates of conversational sensitivity. *Human Communication Research, 14*(2), 167–202. doi: 10.1111=j.1468–2958.1987.tb00126.x

D'Amico, E. J., Parast, L., Shadel, W. G., Meredith, L. S., Seelam, R., & Stein, B. D. (2018). Brief motivational interviewing intervention to reduce alcohol and marijuana use for at-risk adolescents in primary care. *Journal of Consulting and Clinical Psychology*, *86*(9), 775-786. doi:10.1037/ccp0000332.

de Bruijn, G. J., Spaans, P., Jansen, B., & van't Riet, J. (2016). Testing the effects of a message framing intervention on intentions towards hearing loss prevention in adolescents. *Health Education Research*, *31*(2), 161-170. https://doi.org/10.1093/her/cyw006

Dean, H. Y., Touyz, S. W., Rieger, E., & Thornton, C. E. (2008). Group motivational enhancement therapy as an adjunct to inpatient treatment for eating disorders: A preliminary study. *European Eating Disorders Review: The Professional Journal of the Eating Disorders Association*, *16*(4), 256-267. https://doi.org/10.1002/erv.851

Derlega, V. J., Winstead, B. A., Mathews, A., & Braitman, A.L. (2008). Why does someone reveal highly personal information? Attributions for and against self-disclosure in close relationships. *Communication Research Reports, 25*(2), 115-130. doi:10.1080/08824090802021756

Dimitropoulos, G. (2008). *Stigmatization of eating disorder.* National Eating Disorder Information Centre. http://nedic.ca/sites/default/files/files/StigmatizationOfEatingDisorders.pdf

Dodd, D., Smith, A., & Bodell, L. (2014). Restraint feeds stress: The relationship between eating disorder symptoms, stress generation, and the interpersonal theory of suicide. *Eating Behaviors, 15*(4), 567-573. https://doi.org/10.1016/j.eatbeh.2014.08.004

Domitrovich, C.E., Bradshaw, C.P., Greenberg, M.T., Embry, D., Poduska, J.M., & Ialongo, N.S. (2010). Integrated models of school-based prevention: Logic and theory. *Psychology in the Schools*, *47*(1), 71–88. https://doi.org/10.1002/pits.20452

Douglas, H. (2014). Values in social science. In N. Cartwright & E. Montuschi (Eds.), *Philosophy of social science: A new introduction* (pp. 162-182). Oxford, UK: Oxford University Press.

Dunn, E. C., Neighbors, C., & Larimer, M. E. (2006). Motivational enhancement therapy and self-help treatment for binge eaters. *Psychology of Addictive Behaviors*, *20*(1), 44-52. https://doi.org/10.1037/0893-164X.20.1.44

Eating Disorder Coalition (EDC). (n.d.). *Facts about eating disorders: What the research shows.* http://eatingdisorderscoalition.org.s208556.gridserver.com/couch/uploads/file/Eating%20Disorders%20Fact%20Sheet.pdf

Eating Disorder Hope. (2020). *Eating disorder statistics & research.* https://www.eatingdisorderhope.com/information/statistics-studies.

Eating Recovery Center (ERC). (2018). *Face your fears; Let go of the eating disorder identity-Kelli Evans*. https://www.eatingrecoverycenter.com/blog/april-2018/face-your-fears;-let-go-of-the-eating-disorder-identity-%E2%80%93-kelli-evans

Elliott, R., & Freire, E. (2007). Classical person-centered and experiential perspectives on Rogers (1957). *Psychotherapy: Theory, Research, Practice, Training, 44*(3), 285–288. https://doi.org/10.1037/0033-3204.44.3.285

Evans, L., & Wertheim, E. H. (1998). Intimacy patterns and relationship satisfaction of women with eating problems and the mediating effects of depression, trait anxiety and social anxiety. *Journal of Psychosomatic Research, 44*(3-4), 355-365. doi: 10.1016/S0022-3999(97)00260-2

Fairburn, C.G. & Harrison, P.J. (2003). Eating disorders. *The Lancet, 361*(9355), 407-416. doi:10.1016/S0140-6736(03)12378-1

Farrar, T. (2014). *Eating disorders statistics.* Mirror-Mirror. https://www.mirror-mirror.org/eating-disorders-statistics.htm

Fay, B., & Moon, J. D. (1977). What would an adequate philosophy of social science look like? *Philosophy of the Social Sciences, 7,* 209-227.

Fedesco, H. N. (2015). The impact of (in) effective listening on interpersonal interactions. *International Journal of Listening*, *29*(2), 103-106. https://doi.org/10.1080/10904018.2014.965389

Feld, R., Woodside, D. B., Kaplan, A. S., Olmsted, M. P., & Carter, J. C. (2001). Pretreatment motivational enhancement therapy for eating disorders: A pilot study. *International Journal of Eating Disorders*, *29*(4), 393-400. https://doi.org/10.1002/eat.1035

Fichter, M. M., & Quadflieg, N. (2016). Mortality in eating disorders-results of a large prospective clinical longitudinal study. *International Journal of Eating Disorders*, *49*(4), 391-401. https://doi.org/10.1002/eat.22501

Firdaus, A. S. (2005). Metatheoretical considerations of inquiry. *Jurnal Pengajian Media Malaysia*, *7*(1), 81-90.

Fix, B., & Sias, P. M. (2006). Person-centered communication, leader-member exchange, and employee job satisfaction. *Communication Research Reports*, *23*(1), 35-44. https://doi.org/10.1080/17464090500535855

Floyd, J.J. (1985). *Listening: A practical approach.* Glenview, IL: Scott, Foresman.

Floyd, K. (2014). Empathic listening as an expression of interpersonal affection. *International Journal of Listening*, *28*(1), 1-12. https://doi.org/10.1080/10904018.2014.861293

Foynes, M. M., & Freyd, J. J. (2011). The impact of skills training on responses to the disclosure of mistreatment. *Psychology of Violence*, *1*(1), 66-77. https://doi.org/10.1037/a0022021

Foynes, M. M., & Freyd, J. J. (2013). An exploratory study evaluating responses to the disclosure of stressful life experiences as they occurred in real time. *Psychological Trauma: Theory, Research, Practice, and Policy*, *5*(3), 295-300. https://doi.org/10.1037/a0028408

Freyd, J.J. (2021, March 16). *Be a good listener.* https://dynamic.uoregon.edu/jjf/disclosure/goodlistener.html

Gaume, J., Bertholet, N., Faouzi, M., Gmel, G., & Daeppen, J. B. (2010). Counselor motivational interviewing skills and young adult change talk articulation during brief motivational interventions. *Journal of Substance Abuse Treatment*, *39*(3), 272-281. https://doi.org/10.1016/j.jsat.2010.06.010

Gilbert, A. A., Shaw, S. M., & Notar, M.K. (2000). The impact of eating disorders on family relationships. *Eating Disorders, 8*(4), 331-345. doi: 10.1080/10640260008251240

Gilbert N, Arcelus J, Cashmore R, Thompson B, Langham C, & Meyer C. (2012). Should I ask about eating? Patients' disclosure of eating disorder symptoms and help-seeking behaviour. *European Eating Disorder Review*, *20*(1), 80-85. DOI: 10.1002/erv.1143

Giving, B. & de Sam Lazaro, S. L. (2018). *Evidence-based occupational therapy interventions for children with autism: Current practices and continuing education in Minnesota* [Master's thesis]. https://sophia.stkate.edu/ma_osot/

Golden, N. H., Schneider, M., & Wood, C. (2016). Preventing obesity and eating disorders in adolescents. *Pediatrics*, *138*(3), e1-10. https://doi.org/10.1542/peds.2016-1649

Gordon, T. (1970). *Parent effectiveness training: The "no-lose" program for raising responsible children.* Peter H. Wyden.

Gottlieb, C. (2014, February 23). *Disordered eating or eating disorder: What's the difference?* Psychology Today. https://www.psychologytoday.com/us/blog/contemporary-psychoanalysis-in-action/201402/disordered-eating-or-eating-disorder-what-s-the

Grebosz-Haring, K., & Thun-Hohenstein, L. (2018). Effects of group singing versus group music listening on hospitalized children and adolescents with mental disorders: A pilot study. *Heliyon*, *4*(12), 1-28. https://doi.org/10.1016/j.heliyon.2018.e01014

Greene, K., Carpenter, A., Catona, A., & Magsamen-Conrad, K. (2013). The Brief Disclosure Intervention (BDI): Facilitating African Americans' disclosure of HIV. *Journal of Communication, 63*(1), 138-158. doi:10.1111/jcom.12010

Haines, J., Gillman, M. W., Rifas-Shiman, S., Field, A. E., & Austin, S. B. (2009). Family dinner and disordered eating behaviors in a large cohort of adolescents. *Eating Disorders*, *18*(1), 10-24. https://doi.org/10.1080/10640260903439516

Harvard T.H. Chan: School of Public Health. (2021). *STRIPED: Report: Economic costs of eating disorders.* https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/

Herman, K. C., Reinke, W. M., & Thompson, A. M. (2015). Universal prevention to support children's mental health in schools and Reuben Faloughi. In M.K. Holt & A.E. Grills (Eds.), *Critical issues in school-based mental health: Evidence-based research, practice, and interventions* (pp. 190- 202). Routledge. https://doi.org/10.4324/9781315775425

Hoek, H. W., & Van Hoeken, D. (2003). Review of the prevalence and incidence of eating disorders. *International Journal of Eating Disorders, 34*(4), 383- 396. https://doi.org/10.1002/eat.10222

Hoetzel, K., von Brachel, R., Schlossmacher, L., & Vocks, S. (2013). Assessing motivation to change in eating disorders: A systematic review. *Journal of Eating Disorders*, *1*(38), 1-9. http://www.jeatdisord.com/content/1/1/38

Howard, G. S., Schmeck, R. R., & Bray, J. H. (1979). Internal invalidity in studies employing self-report instruments: A suggested remedy. *Journal of Educational Measurement*, 129-135.

Jansen, C. (2020). *Sex differences in listening*. Global Listening Centre. https://www.globallisteningcentre.org/sex-differences-in-listening/

Janusik, L. A. (2002). Teaching listening: What do we do? What should we do?. *International Journal of Listening*, *16*(1), 5-39. https://doi.org/10.1080/10904018.2002.10499047

Jones, S. M. (2011). Supportive listening. *The Intl. Journal of Listening*, *25*(1-2), 85-103. https://doi.org/10.1080/10904018.2011.536475

Jones, S. M., & Guerrero, L. K. (2001). The effects of nonverbal immediacy and verbal person centeredness in the emotional support process. *Human Communication Research, 27*(4), 567–596. doi:10.1111/j.1468-2958.2001.tb00793.x

Karras, A. (2017). *Development and piloting of "Listening Effectively" and" Managing Conflict" educational modules for parents of overweight/obese adolescents* [Doctoral dissertation, William James College]. ProQuest Dissertations Publishing.

Kass, A. E., Trockel, M., Safer, D. L., Sinton, M. M., Cunning, D., Rizk, M. T., ... & Taylor, C.B. (2014). Internet-based preventive intervention for reducing eating disorder risk: A randomized controlled trial comparing guided with unguided self-help. *Behaviour Research and Therapy*, *63*, 90-98. https://doi.org/10.1016/j.brat.2014.09.010

Kelty Mental Health Eating Disorders. (2020). *Disordered eating.* https://keltyeatingdisorders.ca/types-of-disorders/disordered-eating/

Kline, S. L., Pelias, R. J., & Delia, J. G. (1991). The predictive validity of cognitive complexity measures on social perspective-taking and counseling communication. *International Journal of Personal Construct Psychology*, *4*(4), 347-357. https://doi.org/10.1080/08936039108404778

Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of Personality and Social Psychology*, *77*(6), 1121-1134.

Kuhn, T. S. (1998). The nature and necessity of scientific revolutions. In M. Curd & J. A. Cover (Eds.), *Philosophy of science: The central issues* (pp. 86-101). New York, NY: W. W. Norton.

Lattimore, P. J., Wagner, H. L., & Gowers, S. (2000). Conflict avoidance in anorexia nervosa: An observational study of mothers and daughters. *European Eating Disorders Review, 8*(5), 355-368. https://doi.org/10.1002/1099-0968(200010)8:5<355::AID-ERV368>3.0.CO;2-B

Lepore, S. J., Helgeson, V. S., Eton, D. T., & Schulz, R. (2003). Improving quality of life in men with prostate cancer: A randomized controlled trial of group education interventions. *Health Psychology*, *22*(5), 443-452. https://doi.org/10.1037/0278-6133.22.5.443

Levine, M. (2017). Communication challenges within eating disorders: What people say and what individuals hear. In I. Lobera (Ed.), *Eating disorders: A paradigm of the biopsychosocial model of illness* (pp. 239-272). IntechOpen. https://doi.org/10.5772/65305

Lindhe Söderlund, L. (2010). *Motivational interviewing in theory and practice* [Doctoral dissertation, Linköping University]. Electronic Press.

López, C. (2008). *An examination of central coherence in eating disorders and its clinical implications* [Doctoral dissertation, King's College London].

Löwe, B., Zipfel, S., Buchholz, C., Dupont, Y., Reas, D. L., & Herzog, W. (2001). Long-term outcome of anorexia nervosa in a prospective 21-year follow-up study. *Psychological Medicine*, *31*(5), 881-890. DOI:10.1017/S003329170100407X

Lyons, L., & Ekern, J. (2017). *Genetic factors behind eating disorders.* Eating Disorder Hope. https://www.eatingdisorderhope.com/blog/genetic-factors-eating-disorders

Macdonald, P., Hibbs, R., Corfield, F., & Treasure, J. (2012). The use of motivational interviewing in eating disorders: A systematic review. *Psychiatry Research*, *200*(1), 1-11. https://doi.org/10.1016/j.psychres.2012.05.013

Madden, S., Morris, A., Zurynski, Y. A., Kohn, M., & Elliot, E. J. (2009). Burden of eating disorders in 5–13-year-old children in Australia. *Medical Journal of Australia*, *190*(8), 410-414. https://doi.org/10.5694/j.1326-5377.2009.tb02487.x

Magill, M., & Hallgren, K. A. (2019). Mechanisms of behavior change in motivational interviewing: Do we understand how MI works?. *Current Opinion in Psychology*, *30*, 1-5. https://doi.org/10.1016/j.copsyc.2018.12.010

Marcus, B. H., Selby, V. C., Niaura, R. S., & Rossi, J. S. (1992). Self-efficacy and the stages of exercise behavior change. *Research Quarterly for Exercise and Sport*, *63*(1), 60-66. https://doi.org/10.1080/02701367.1992.10607557

Mental Health First Aid. (2019, August 15). *Five tips for nonjudgmental listening*. https://www.mentalhealthfirstaid.org/2019/08/five-tips-for-nonjudgmental-listening/

Micali, N., Hagberg, K.W., Petersen, I., & Treasure, J.L. (2013). The incidence of eating disorders in the UK in 2000–2009: Findings from the General Practice Research Database. *BMJ Open, 3*(5): e002646. doi: 10.1136/bmjopen-2013-002646.

Miller, K. (2002). *Communication theories: Perspectives, processes and contexts.* McGraw-Hill Higher Education.

Miller, W. R. (2014). Celebrating Carl Rogers: Motivational interviewing and the person-centered approach. *Motivational Interviewing: Training, Research, Implementation, Practice*, *1*(3), 4-6. 10.5195/MITRIP.2014.54

Miller, W. R. (2018). *Listening Well: The Art of Empathic Understanding*. Wipf and Stock Publishers.

Miller, W. R., & Moyers, T. B. (2017). Motivational interviewing and the clinical science of Carl Rogers. *Journal of Consulting and Clinical Psychology, 85*(8), 757–766. https://doi.org/10.1037/ccp0000179

Miller, W.R., & Rollnick, S. (2002). *Motivational interviewing: Preparing people for change* (2nd ed.). The Guilford Press.

Miller, W. R., & Rollnick, S. (2013). *Motivational interviewing: Helping people change*. (3rd ed.). Guilford Press.

Miller, W. R., & Rose, G. S. (2009). Toward a theory of motivational interviewing. *American Psychologist*, *64*(6), 527-537. https://doi.org/10.1037/a0016830

Mishima, N., Kubota, S., & Nagata, S. (2000). The development of a questionnaire to assess the attitude of active listening. *Journal of Occupational Health, 42*(3), 111–18. https://doi.org/10.1539/joh.42.111

Mitchison, D., & Hay, P. J. (2014). The epidemiology of eating disorders: Genetic, environmental, and societal factors. *Clinical Epidemiology*, *6*, 89-97. doi: 10.2147/CLEP.S40841

Mond, J., Mitchison, D., & Hay, P. (2014). Eating disordered behavior in men: Prevalence, impairment in quality of life, and implications for prevention and health promotion. In L. Cohn & R. Lemberg (Eds.), *Current findings on males with eating disorders* (pp. 195–215). Routledge/Taylor & Francis Group.

Moore, D., & Tananis, C. A. (2009). Measuring change in a short-term educational program using a retrospective pretest design. *American Journal of Evaluation*, *30*(2), 189-202. https://doi.org/10.1177/1098214009334506

Moses, T. (2010). Being treated differently: Stigma experiences with family, peers, and school staff among adolescents with mental health disorders. *Social Science & Medicine, 70*(7), 985-993. https://doi.org/10.1016/j.socscimed.2009.12.022

Napolitano, F., Bencivenga, F., Pompili, E., & Angelillo, I. F. (2019). Assessment of knowledge, attitudes, and behaviors toward eating disorders among adolescents in Italy. *International Journal of Environmental Research and Public Health*, *16*(8), 1-11. https://doi.org/10.3390/ijerph16081448

National Centre for Eating Disorder (NCFED). (2018). *Eating disorders & schools.* https://eating-disorders.org.uk/information/eating-disorders-schools/

National Communication Association (NATCOM). (2020). *What is communication?* https://www.natcom.org/about-nca/what-communication

National Eating Disorder Association (NEDA). (2018). *Stories of hope: A project in the making: Florence C.* https://www.nationaleatingdisorders.org/node/6826

National Eating Disorder Association (NEDA). (2019a). *Health consequences.* https://www.nationaleatingdisorders.org/health-consequences.

National Eating Disorder Association (NEDA). (2019b). *Statistics and research on eating disorders.* https://www.nationaleatingdisorders.org/statistics-research-eating-disorders

National Eating Disorder Association (NEDA). (2019c). *Orthorexia.* https://www.nationaleatingdisorders.org/learn/by-eating-disorder/other/orthorexia

National Eating Disorder Association (NEDA). (2019d). *Binge eating disorder.* https://www.nationaleatingdisorders.org/learn/by-eating-disorder/bed

National Eating Disorder Association (NEDA). (2019e). *Anorexia nervosa.* https://www.nationaleatingdisorders.org/learn/by-eating-disorder/anorexia

National Eating Disorder Association (NEDA). (2019f). *Bulimia nervosa.* https://www.nationaleatingdisorders.org/learn/by-eating-disorder/bulimia

National Eating Disorder Association (NEDA). (2019g). *Other specified feed or eating disorders (OSFED)/eating disorder not otherwise specified (EDNOS).* https://www.nationaleatingdisorders.org/learn/by-eating-disorder/osfed

National Eating Disorders Collaboration (NEDC). (2015). *Eating disorders: A professional resource for general practitioners*. https://www.nedc.com.au/assets/NEDC-Resources/NEDC-Resource-GPs.pdf.

Neumark-Sztainer, D. (2009). Preventing obesity and eating disorders in adolescents: What can health care providers do?. *Journal of Adolescent Health*, *44*(3), 206-213. https://doi.org/10.1016/j.jadohealth.2008.11.005

Nichols, R. G. (1948). Factors in listening comprehension. *Communications Monographs*, *15*(2), 154-163. https://doi.org/10.1080/03637754809374953

Nicholls, D. E., Lynn, R., & Viner, R. M. (2011). Childhood eating disorders: British national surveillance study. *The British Journal of Psychiatry*, *198*(4), 295-301. doi: 10.1192/bjp.bp.110.081356

Norman, E., Sherburn, M., Osborne, R. H., & Galea, M. P. (2010). An exercise and education program improves well-being of new mothers: A randomized controlled trial. *Physical Therapy*, *90*(3), 348-355. https://doi.org/10.2522/ptj.20090139

Papadopoulos, F. C., Ekbom, A., Brandt, L., & Ekselius, L. (2009). Excess mortality, causes of death and prognostic factors in anorexia nervosa. *The British Journal of Psychiatry 194* (1), 10-17. doi: 10.1192/bjp.bp.108.054742

Patton, G. C., Selzer, R., Coffey, C., Carlin, J. B., & Wolfe, R. (1999). Onset of adolescent eating disorders: Population based cohort study over 3 years. *BMJ*, *318*(7186), 765-768. https://doi.org/10.1136/bmj.318.7186.765

Pettersen, G., Rosenvinge, J.H., & Ytterhus, B. (2008). The "double life" of bulimia: Patients' experiences in daily life interactions. *Eating Disorders, 16*(3), 204-211. https://doi.org/10.1080/10640260802016696

Pinhas, L., Morris, A., Crosby, R. D., & Katzman, D. K. (2011). Incidence and age-specific presentation of restrictive eating disorders in children: A Canadian Paediatric Surveillance Program study. *Archives of Pediatrics & Adolescent Medicine*, *165*(10), 895-899. doi:10.1001/archpediatrics.2011.145

Polivy, J., & Herman, C. P. (2002). Causes of eating disorders. *Annual Review of Psychology*, *53*(1), 187-213. https://doi.org/10.1146/annurev.psych.53.100901.135103

Rahimi, M., & Abedi, S. (2014). The relationship between listening self-efficacy and metacognitive awareness of listening strategies. *Procedia-Social and Behavioral Sciences*, *98*(2), 1454-1460. https://doi.org/10.1016/j.sbspro.2014.03.565

Raskin, J. D. (2002). Constructivism in psychology: Personal construct psychology, radical constructivism, and social constructionism. *American Communication Journal*, *5*(3), 1-25.

Rhodes, R. E., Blanchard, C. M., Quinlan, A., Naylor, P. J., & Warburton, D. E. (2019). Family physical activity planning and child physical activity outcomes: A randomized trial. *American Journal of Preventive Medicine*, *57*(2), 135-144. https://doi.org/10.1016/j.amepre.2019.03.007

Roberts, W., & Strayer, J. (1996). Empathy, emotional expressiveness, and prosocial behavior. *Child Development, 67*(2), 449–470. https://doi.org/10.1111/j.1467-8624.1996.tb01745.x

Rogers, C. R. (1957). The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology*, *21*(2), 95-103. https://doi.org/10.1037/h0045357

Rogers, C. R. (1979). The foundations of the person-centered approach. *Education*, *100*(2), 98-107.

Rohde, P., Stice, E., & Marti, C. N. (2015). Development and predictive effects of eating disorder risk factors during adolescence: Implications for prevention efforts. *International Journal of Eating Disorders*, *48*(2), 187-198. https://doi.org/10.1002/eat.22270

Rollin, J. (n.d.). *OSFED versus EDNOS: What is the difference?* Eating Disorder Hope. https://www.eatingdisorderhope.com/blog/osfed-versus-ednos-what-is-the-difference

Rosenbloom, C. (2020, December 11). *Today's teens more likely to diet compared to past generations, Study shows.* VeryWellFit. https://www.verywellfit.com/teens-more-likely-to-diet-than-in-previous-generations-5091912#citation-1

Rost, M. (2007). Commentary: I'm only trying to help: A role for interventions in teaching listening. *Language Learning & Technology*, *11*(1), 102-108.

Schmidt, U., & Treasure, J. (2006). Anorexia nervosa: Valued and visible. A cognitive-interpersonal maintenance model and its implications for research and practice. *British Journal of Clinical Psychology*, *45*(3), 343-366. DOI:10.1348/014466505X53902

Schunk, D. H. (1984). Self-efficacy perspective on achievement behavior. *Educational Psychologist*, *19*(1), 48-58. https://doi.org/10.1080/00461528409529281

Schunk, D. H. (1989). Self-efficacy and achievement behaviors. *Educational Psychology Review*, *1*(3), 173-208. https://doi.org/10.1007/BF01320134

Seltzer, L.F. (2017, June 28). *Feeling understood-Even more important than feeling loved?* Psychology Today. https://www.psychologytoday.com/us/blog/evolution-the-self/201706/feeling-understood-even-more-important-feeling-loved

Serpell, L., & Treasure, J. (2002). Bulimia nervosa: Friend or foe? The pros and cons of bulimia nervosa. *International Journal of Eating Disorders*, *32*(2), 164-170. https://doi.org/10.1002/eat.10076

Shafran-Tikva, S., & Kluger, A. N. (2018). Physician's listening and adherence to medical recommendations among persons with diabetes. *International Journal of Listening*, *32*(3), 140-149. https://doi.org/10.1080/10904018.2016.1250634

Skeen, M., McKay, M., Fanning, P., & Skeen, K. (2016). *Communication skills for teens: How to listen, express, and connect for success*. New Harbinger Publications.

Smink, F. R., Van Hoeken, D., & Hoek, H. W. (2012). Epidemiology of eating disorders: Incidence, prevalence and mortality rates. *Current Psychiatry Reports*, *14*(4), 406-414. DOI 10.1007/s11920-012-0282-y

Solmi, F., Sharpe, H., Gage, S. H., Maddock, J., Lewis, G., & Patalay, P. (2021). Changes in the prevalence and correlates of weight-control behaviors and weight perception in adolescents in the UK, 1986-2015. *JAMA Pediatrics, 175*(3), 267-275. doi:10.1001/jamapediatrics.2020.4746

Steil, L.K. (1984, March). *The ILA and certification of teachers and trainers* [Paper presentation]. The International Listening Association Convention, Scottsdale, AZ.

Steuber, K.R., & Solomon, D.H. (2011). Factors that predict married partners' disclosures about infertility to social network members. *Journal of Applied Communication Research, 39*(3), 250-270. Doi: 10.1080/00909882.2011.585401

Stice, E., Marti, C.N., Shaw, H., & Jaconis, M. (2009). An 8-year longitudinal study of the natural history of threshold, subthreshold, and partial eating disorders from a community sample of adolescents. *Journal of Abnormal Psychology, 118*(3), 587-597. https://doi.org/10.1037/a0016481

Sunday, S. R., Halmi, K. A., & Einhorn, A. (1995). The Yale-Brown-Cornell eating disorder scale: A new scale to assess eating disorder symptomatology. *International Journal of Eating Disorders*, *18*(3), 237-245. https://doi.org/10.1002/1098-108X(199511)18:3<237::AID-EAT2260180305>3.0.CO;2-1

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, *2*, 53-55. doi: 10.5116/ijme.4dfb.8dfd

Treasure, J. L., Katzman, M., Schmidt, U., Troop, N., Todd, G., & de Silva, P. (1999). Engagement and outcome in the treatment of bulimia nervosa: First phase of a sequential design comparing motivation enhancement therapy and cognitive behavioural therapy. *Behaviour Research and Therapy*, *37*(5), 405-418. https://doi.org/10.1016/S0005-7967(98)00149-1

Treasure, J., López, C., & Macdonald, P. (2011). Eating disorders. In S. Naar-King & M. Suarez (Eds.), *Motivational Interviewing with adolescents and young adults* (pp. 127-134). The Guilford Press.

Trees, A. R. (2000). Nonverbal communication and the support process: Interactional sensitivity in interactions between mothers and young adult children. *Communications Monographs, 67*(3), 239–261. doi:10.1080/03637750009376509

Trenholm, S., & Jensen, A. (2013). *Interpersonal communication* (7th ed.). Oxford University Press.

Vawter, D. (2009). Mining the middle school mind. *Education Digest*, *75*(5), 47-49.

Vidovic´,V., Jureša, V., Begovac, I., Mahnik, M., & Tocilj, G. (2005). Perceived family cohesion, adaptability and communication in eating disorders. *European Eating Disorders Review, 13*(1), 19-28. https://doi.org/10.1002/erv.615

Wade, T. D., Frayne, A., Edwards, S. A., Robertson, T., & Gilchrist, P. (2009). Motivational change in an inpatient anorexia nervosa population and implications for treatment. *Australian & New Zealand Journal of Psychiatry*, *43*(3), 235-243. https://doi.org/10.1080/00048670802653356

Wagg, A., Chowdhury, Z., Galarneau, J. M., Haque, R., Kabir, F., MacDonald, D., ... & Cherry, N. (2019). Exercise intervention in the management of urinary incontinence in older women in villages in Bangladesh: A cluster randomised trial. *The Lancet Global Health*, *7*(7), e923-e931. https://doi.org/10.1016/S2214-109X(19)30205-0

Wagner, E. F., Graziano, J. N., Morris, S. L., & Gil, A. G. (2014). A randomized controlled trial of guided self-change with minority adolescents. *Journal of Consulting and Clinical Psychology*, *82*(6), 1128-1139. https://doi.org/10.1037/a0036939

Waller, G. (2012). The myths of motivation: Time for a fresh look at some received wisdom in the eating disorders?. *International Journal of Eating Disorders*, *45*(1), 1-16. https://doi.org/10.1002/eat.20900

Wanzer, M.B., Booth-Butterfield, M. & Gruber, K. (2004). Perceptions of health care providers' communication: Relationships between patient-centered communication and satisfaction. *Health Communication, 16*(3), 363-384. https://doi.org/10.1207/S15327027HC1603_6

Westerberg, D. P., & Waitz, M. (2013). Binge-eating disorder. *Osteopathic Family Physician, 5*(6), 230-233. https://doi.org/10.1016/j.osfp.2013.06.003

Whatnall, M. C., Patterson, A. J., Ashton, L. M., & Hutchesson, M. J. (2018). Effectiveness of brief nutrition interventions on dietary behaviours in adults: A systematic review. *Appetite*, *120*, 335-347. https://doi.org/10.1016/j.appet.2017.09.017

Wimmer, R.D. & Dominick, J.R. (1994). *Mass media research: An introduction* (4th ed.). Westworth Publishing Company.

Wolvin, A.D. (1989). Models of the listening process. In C. V. Roberts, & K.W. Watson (Eds.), *Intrapersonal communication process: Original essays* (pp. 508-527). Spectra, Inc.

Wolvin, A. D. (2010). Listening engagement: Intersecting theoretical perspectives. In A. D. Wolvin (Ed.), *Listening and human communication: 21st century perspectives* (pp. 5–30). Blackwell.

Wolvin, A.D., & Coakley, C.G. (1996). *Listening* (5th ed.). Brown & Benchmark.

World Health Organization (WHO). (2021). *Adolescent health.* https://www.who.int/health-topics/adolescent-health#tab=tab_1

Worthington, D.L., & Bodie, G.D. (2018). Defining listening: A historical, theoretical, and pragmatic assessment. In D.L. Worthington & G.D. Bodie (Eds.), *The sourcebook of listening research: Methodology and measures* (pp. 3–17). Wiley.

Wosket, V. (2008). *Egan's skilled helper model: Developments and implications in counselling*. Routledge.

Zachariah, B., de Wit, E. E., Bahirat, J. D., Bunders-Aelen, J. F., & Regeer, B. J. (2018). What is in it for them? Understanding the impact of a 'Support, Appreciate, Listen Team'(SALT)-Based suicide prevention peer education program on peer educators. *School Mental Health*, *10*(4), 462-476. doi:10.1007/s12310-018-9264-5

APPENDIX A. DETAILED INTERVENTION PLAN WITH SCRIPT

The intervention was designed for approximately 50 minutes, a typical middle or high school class period. Participants were provided the survey link the day before the intervention to complete the survey online. However, only those whose parents provided consent for their child's data to be used within this study results were kept. The next section presents a breakdown of this intervention for this dissertation project. For this example, the class period will be 9 - 9:50 am.

9 - 9:10 am: "Hello, my name is Ashleigh Shields, and I am a graduate student at Purdue University studying health communication and public health. My focus is on eating disorders and how to help those struggling with EDs and their close others best communicate with one another. Therefore, I am here to talk with you all today about listening within the context of EDs. However, before we begin, I have a few questions. If you would answer yes to any of these questions, please stand up. If you would respond no to any of these questions, please stay seated. However, you need to do this with your eyes closed, and once everyone has made their decision, I will let you all sit back down and open your eyes and then close for the next question. There are only three questions. Are you all ready?!?!

My first question for you all is, "Do you know what it means to be a good listener?" Please, stand up if yes and stay seated if no/you don't know, and please keep your eyes closed. Alright, who wants to tell me what it means to be a good listener" (I selected a student to answer and depending on the answer, I provided feedback). "Awesome! Great work! The next question is, "Do you want to help your friends and peers when they are in need?" Again, please stand up if yes and stay seated if no/you don't know. Okay, who can tell me what you consider to be a time of need?" (I selected a couple of students to answer and tied their responses to EDs and how that may be a time of need for someone they know or even themselves). "Great work, everyone!" "The third question is, "Do you want to be known as a good listener?!" Again, please stand up if yes and stay seated if no/you don't know. Okay, who can tell me why you would want to be known as a good listener?" (I selected a couple of students to answer and then used it to segue to the beginning of the presentation). "By the end of this presentation, you will have the tools to be better listeners, notably within the context of EDs. Today, I will talk about listening, EDs, MI,

provide tips to help with listening better, an activity (I will say this for those in the education plus classes), and then time for questions! Are you all ready to learn how to be the best listeners you can be? Let's get started!"

9:10 - 9:20 am: "When it comes to **listening**, I will discuss the definition, active-empathic listening, listening during disclosure, the benefits, and barriers to listening, and how to overcome barriers.

First, the definition, active-empathic listening, and listening during disclosure. According to Trenholm and Jensen in 2013, listening is "the process of receiving, constructing meaning from, and responding to spoken and nonverbal messages." In other words, it is how one takes, creates, and then communicates back to another. In fact, as Berger in 2011 discusses, "we speak while we listen, and we listen while we speak." So, we spend a lot of time listening, and it is essential we learn to be the best we can be! There are many different types of listening, but I want to discuss active-empathic listening with you all today. This type of listening is necessary to be a good/effective listener (according to Bodie, 2011). It consists of being able to easily recall what the individual was communicating, asking questions to show you are engaged with what they are saying, and then paraphrase with non-verbals (e.g., head nods, eye contact; according to Bodie, 2011) to show you understand what is being communicated. When it comes to listening during disclosure, how one listens can impact how the person talking handles their health issue (Becker-Blease & Freyd, 2006) (such as with and EDs)."

"Listening well could influence the relationship of those communicating and if one would seek help or not. Thus, the closer two people are, the better that relationship may go and the more forgiving they will be if the communication was not expected. One key thing I want you all to remember in terms of listening during disclosure is the acronym DARVO. DARVO stands for "Deny, Attack, Reverse Victim, and Offender" (Freyd, 2021). In other words, when someone is disclosing personal information to you, such as an EDs you want to stay away from DARVO. You do not want to deny what they are experiencing. You do not want to attack the person talking, and you do not want to put the person accused of the wrongdoing in the position of the person impacted. It is essential to acknowledge what another is experiencing and feeling because that shows compassion and effective listening. Are there any questions before I move on to the benefits and barriers to listening?"

"Before discussing the benefits and barriers to listening, I want to state this quote at the top of the slide that I think is important to remember by Berger (2011), "listeners speak even as they silently listen." In other words, you are still speaking even when you are not talking due to the nonverbal cues you provide to the person talking. Therefore, be careful how you are interacting. You do not want to roll your eyes or look around the room because it communicates to the person talking that you are not interested or bored. Think of the common saying, "actions speak louder than words." There are many benefits to listening, such as helping those struggling with mental health (such as EDs). Listening satisfies a basic human need because we all need human connection and feel heard and understood."

"Additionally, listening helps provide a supportive climate because listening to others shows them that you support them and are there for them. Lastly, listening helps with personal (increasing trust with friends and family) and professional lives (with coworkers). For example, listening well can help avoid conflict and can help others feel appreciated."

"Now onto barriers! There are many barriers to listening, but today I will briefly discuss six barriers to listening. **Comparing** consists of individuals focusing on what a person is saying to one's own experience instead of listening intently to what the person is saying (Skeen et al., 2016). **Mind-reading** refers to an individual imagining something one may say instead of listening to what the person is saying (Skeen et al., 2016). **Rehearsing** involves the listener practicing what they would say next and could result in missing information (Skeen et al., 2016). **Filtering** can lead to selective listening because individuals choose what they want to listen to instead of listening to everything said (Skeen et al., 2016). **Judging** consists of an individual dismissing what the other is saying, resulting in not hearing what is being said (Skeen et al., 2016). **Daydreaming** is not being present and paying attention to what is being said (Skeen et al., 2016)."

"Now I will conclude the listening section by talking about overcoming barriers. The significant way you all can overcome these barriers is by engaging in active listening-so by paraphrasing what the other is saying, asking for clarifications, providing feedback, being open when the other is communicating, being aware of what they are and are not saying (so picking up on nonverbals/silence), and being empathic, which means utilizing nonverbals (e.g., smiling, eye contact, and open body posture; Burgoon, Guerrero, & Floyd, 2010), and emotionally connecting

(i.e., through feelings) with another (Skeen et al., 2016). What questions do you all have before we move onto EDs?"

9:20 - 9:30 am: "When it comes to **EDs,** I will discuss the general definition of EDs, common symptoms of EDs (i.e., emotional, social, and physical), risk factors (i.e., psychological, physical, and social), disordered eating, the main types of EDs (i.e., AN, BN, BED, OSFED/EDNOS), startling statistics about EDs, myths and misconceptions (i.e., only girls have ED), and resources."

"When it comes to EDs, I would like to emphasize how this is a physical and mental health problem that can impact ANYONE. No matter your age, SES, gender, sexual orientation, race, and ethnicity. Those with EDS are concerned about weight and body shape. There are various symptoms of EDs, and many are the same, yet some symptoms are different. Therefore, I am going to discuss them in three categories: social, emotional, and physical. Social symptoms consist of avoiding social situations and interacting with friends. Emotional symptoms include eating considerable volume of food in a brief time, lacking control when bingeing, hiding food, avoiding interactions with friends and family, possessing low self-esteem, fear of eating in public (NEDA, 2019d), losing a large amount of weight and obsessing over food, calories, dieting, weight, and control (NEDA, 2019e), going to the restroom immediately following meals, food rituals, and mood swings (NEDA, 2019f). Physical symptoms may consist of a continually changing body weight, stomach issues, constipation, difficulty focusing (NEDA, 2019d), being cold, loss of menstrual period, dizziness, irregular periods, difficulty sleeping, anemia, lower heart rate, deficient hormone, and thyroid levels, weakness, and a damaged immune system (NEDA, 2019e). Any questions?!"

"We will now move onto EDs risk factors, consisting of psychological, social, and physical factors. Psychological risk factors include perfectionism, need to please others, low self-esteem, depression, anxiety, body dissatisfaction, and obsessive thoughts (Golden et al., 2016; Mitchison & Hay, 2014; Rohde et al., 2015). Many psychological risk factors are genetic (e.g., obsessive thoughts, perfectionism; Lyons & Ekern, 2017). Social risk factors include meals, weight talk, weight teasing, participation in individual sports (i.e., dancing, gymnastics, wrestling), cultural idealizations (e.g., media), and influence of peers (Golden et al., 2016; Mitchison & Hay, 2014; Polivy & Herman, 2002). In fact, dieting/diet culture has become so

ingrained within our culture due to increased messages that encourage changing one's body (Rosenbloom, 2020; Solmi et al., 2021). For example, within the UK, adolescents engage in more diet behaviors than previous generations (Solmi et al., 2021). The physical risk factors include dieting, physical abuse, and sexual abuse (Golden et al., 2016; Mitchison & Hay, 2014). Any questions?!"

"We will now discuss disordered eating (DE), which is very similar to EDs. Think of EDs' behaviors on a spectrum. In other words, the ones that do not meet DSM-5, which is a resource on mental health disorders developed by experts in the field to assist all areas of recovery (e.g., diagnoses, treatment, and research) (APA, 2020) would be considered to have more DE behaviors. Thus, DE consists of having an unfortunate relationship with body and food. Individuals tend to report negative voices in their heads and view certain foods as good and bad foods rather than fuel and fun foods (R. Tilt, personal communication, October 28, 2020). Of which I encourage you all to do! Instead of viewing food as good or bad. Instead, think of food as fuel and fun. For example, a donut may not necessarily fuel your body as an apple would, but a donut is fun food and sometimes will help your mood. Thus, all food is good, but different foods serve different purposes. Individuals with DE also have negative feelings about their bodies and may resort to dieting and limiting access to some foods (Kelty Mental Health Eating Disorders, 2020). Orthorexia is an example of this. Orthorexia is the preoccupation with eating healthy but not necessarily with body image (NEDA, 2019c). This obsession with eating healthy causes more harm than benefit. Any questions?"

"There are four main types of EDs. What are the main types? (I called on those with their hands up) Good! Binge Eating Disorder (BED) consists of consuming a large volume of food quickly until becoming physically uncomfortable, lacking control, and consuming food when alone. They tend to feel shame, disgust, or depression after consumption and is the most common EDs and is relatively new (NEDA, 2019d). Anorexia Nervosa (AN) is portrayed by weight diminishing, food restriction, dread of weight accumulating, a disparaging assessment of one's body. They may also work out excessively, and notably, individuals of any size can have AN. However, due to cultural bias, those who do not appear to be underweight are often overlooked (NEDA, 2019e). Bulimia Nervosa (BN) consists of consuming large amounts of food quickly following that consumption with purging, utilization of laxatives, fasting, exercise, or other medical forms to discard enormous amounts of consumed food. They tend to drink large

quantities of water, use excessive amounts of gum, mints, mouthwash, calluses on hands/knuckles, discolored teeth, swollen cheeks, thinning hair, dry/brittle nails, and dry skin (NEDA, 2019f). Other Specified Feeding or Eating Disorders (OSFED)/ Eating Disorder Not Otherwise Specified (EDNOS), OSFED was previously known as Eating Disorder Not Otherwise Specified. EDs that meet OSFED criteria do not necessarily meet the requirements of BED, AN, BN, or orthorexia (NEDA, 2019g). Any questions?"

"Now I will mention two startling statistics. First, about every 62 minutes, someone dies due to an ED" (for future presentations it will be changed to 52 minutes). "Please take a moment to process this because that is a lot of people. Additionally, EDs have one of the highest death tolls of all mental illnesses, leading me to some common myths and misconceptions about EDs. Specifically, they are not a fad or a choice that individuals make. Instead, EDs are a severe illness individuals struggle to control and survive (NEDA, 2019a). The second startling fact I would like to give you is that those who identify as female are not the only ones impacted by EDs. Those who identify as males or who have no specific gender identity are also affected and sometimes have a greater risk due to individuals believing EDs are a "white girl illness," which indicates no one else, especially those that identify as male, are able to struggle with EDs. Not only this, but many are talked about negatively for having a "girl illness". Any questions?"

"Before we move onto MI, here are some resources for you if you or someone you know may be struggling with EDs. First, in Lafayette, IN, RoundTable Wellness (RTW) helps those with EDs, specifically mental health and nutrition. Second, NEDA has many resources for individuals, such as loved ones and support groups. Third, here is information regarding the National Suicide Hotline if you may ever need it for yourself or others."

9:30 - 9:40 am: "When it comes to **MI,** I will discuss the definition of MI, OARS, and righting reflex. The definition of MI consists of a "client-centered counseling style" (Magill & Hallgren, 2019, p. 1). In other words, the client is part of the process. There are many parts of MI, but today I will focus on two aspects I would like for you to remember: OARS and righting reflex." "First, OARS stands for Open questioning, Affirming, Reflecting, and Summarizing. Asking open questions allows those being asked to think before they respond and is "like an open door" (Miller & Rollnick, 2013, p. 62) in that these types of questions can be answered in a variety of ways. However, Miller (2018) suggested not to ask "three questions in a row" because it may

seem like an interrogation (p. 22). In terms of affirming, it is "to accentuate the positive," to "support and encourage," and to utilize empathy (Miller & Rollnick, 2013, p. 64). An affirmation should not start with the word "I" and should focus on the positive or the "glass-half-full" approach (Miller & Rollnick, 2013, p. 65). Reflecting reiterates what an individual means (Miller & Rollnick, 2013). Reflections should express understanding, help with clarifications, and establish relationships with others (Miller & Rollnick, 2013). Summaries gather reflections told by an individual and collect many items and briefly repeat them (Miller & Rollnick, 2013). In all, OARS are “foundational tools for mutual understanding” (Miller & Rollnick, 2013, p. 62). Any questions?”

“For example, within the context of EDs, pretend a friend has approached you saying they think they are struggling with Anorexia. Using OARS in this situation may look like this of which was adopted by Miller and Rollnick (2013):

Open Questioning:

“What makes you feel this way?”

“How can I help you?”

No more than three questions in a row. Utilize “what” or “how” instead of “why.”

Affirming:

“Thank you for talking to me about this!”

“Listening to what you are currently going through, I am not sure I would have been able to be as open about your situation as you have. You are so strong.”

Have good eye contact and body posture that shows you are listening.

Reflective Listening:

“So, you feel…”

negative about your body and food.

depressed or anxious about your body and food.

“It sounds like you…”

are avoiding those close to you.

are limiting how much you eat and are working out a lot.

“You’re wondering if”

I am aware of anyone that can help.

I have had a similar experience.

Repeat, paraphrase, reflect, shift, and reframe.

Summarizing:

“I want to make sure I understand…”

“This is what I heard; please tell me if I am missing anything or not hearing what you said correctly.”

Paraphrase”

“Now I will discuss the righting reflex within MI. MI is the "desire to fix what seems wrong with people and to set them promptly on a better course, relying on directing" (Miller & Rollnick, 2013, p. 6). Overall, you want to avoid suggesting new ways of conveying their experiences because every individual’s situation is different. You want to avoid directing and avoid using words such as “administer,” “authorize,” “rule,” and “run” because it indicates that the listener is controlling the situation instead of working together with the individual being heard. An example of the righting reflex with a directing style is the statement, "I need to just tell them clearly what to do" (Miller & Rollick, 2013, p. 137). In all, “we have two ears and one mouth, and we should use them proportionally” (Cain, 2012, p. 240) (or equally).”

9:40 - 9:50 am: (For the **education-plus Q&A** classes, this time was for the activity). “Alright! Now we will move onto the activity. This activity is a Q& A activity, which means this is your time to ask me questions about what we discussed today! What questions do you have?!” (I waited for questions and answered the questions accordingly. However, I prepared questions to promote discussion for the last 10 minutes of class just in case they did not have any questions). The questions I have created consist of the following:

What are some of the benefits of listening? Any other benefits you can think of that we did not discuss today?

What are some barriers to listening? Any other barriers you can think of that we did not discuss today?

When else could you use/benefit from using active empathic listening?

How can we promote a more body-positive culture?

How can we communicate with one another more to help decrease negative body image?

What have you personally seen that could increase and decrease negative body image? For example, RoundTable Wellness advocates for a No-Diet Culture.

When else could you use/benefit from using motivational interviewing?

9:40 - 9:50 am: (For the **education plus MI** classes, this time will be for the activity). “Alright! Now we will move onto the activity. Your teacher will help me divide you all into pairs, and if need be, a group of three will work. You will just need to switch a little sooner and make sure everyone plays two roles. Once you are in pairs, which role you play will be determined by a first come, first serve basis/randomized. This activity may be something you face in the future. Therefore, why not practice now?! For example, it could be a friend or peer struggling with one of the common EDs (i.e., AN, BN, BED, and OSFED) or with DE. Here is the prompt” (I showed the slide with the prompt discussed below). “Please take a minute to read your role and start your conversation. Remember what we discussed today.” This activity was based Foynes and Freyd (2011) and Miller (2018).

The disclosure prompt:

“Please pretend you are telling your partner in this activity about one of the eating disorders discussed in this presentation (i.e., Binge Eating, Bulimia, Anorexia, or OSFED). Do your best to talk about the symptoms that were discussed in the presentation and how you might talk about this disorder if you were experiencing it.”

The listener prompt:

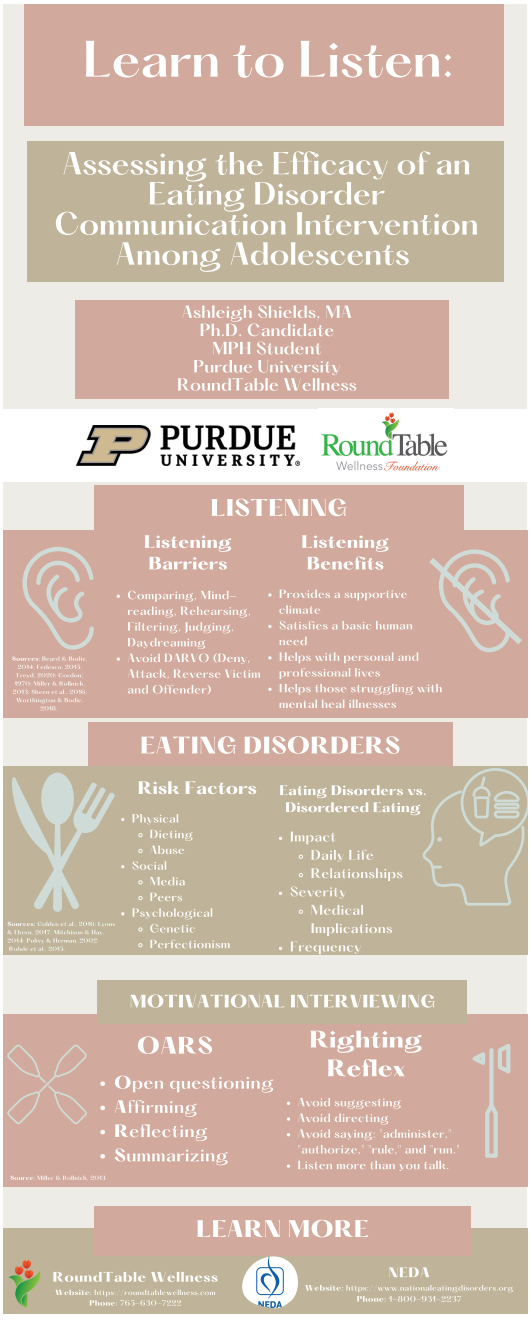
“Please take this time to listen to your partner. Utilize the tips you learned during this presentation (i.e., OARS) and stay away from the things we discussed to avoid (i.e., the righting reflex, DARVO, and listening barriers).”

“You will participate in this activity for approximately 5 minutes in your current role and then will switch positions so that each participant has the opportunity to practice the listening skills just learned.”

“Alright, how do you feel after this activity? Were you able to remember the tips?” (After this, I will see how long the debriefing lasts, and depending on time, I will ask if they have any questions. If there is not enough time, I will explain that we are running low on time), “so please let your teacher know if you have any questions, and your teacher can email me your questions! Thank you so much for participating today, and I hope you all have a great rest of your day!” (The next day I emailed their teachers, and they forwarded the link to the students to have them

fill out the post-test survey and the FACT sheet, so they had something to reference in the future).

APPENDIX B. FACT SHEET



APPENDIX C. PRE/POST-SURVEY

Description: This survey is 31 questions long and should take you about 10-15 minutes. Please answer these as well as you can. This survey will not impact your grade for your health class but will provide future educators knowledge of what works when educating adolescents on listening and eating disorders. Also, all of your answers are anonymous, so there is no way for us to know who fills out the survey. Thank you for your time!

Demographics

1. **What gender do you identify as?** ____Male ___Female _____Non-binary/third gender. ___Prefer not to say
2. **What is your sexual orientation?** ____straight ____bisexual _____gay ___Other (Please Specify___)
3. **What is your age? _____**
4. **How do you describe your ethnicity?** ____American Indian or Alaska Native ___Asian ___Black or African American ___Native American or Other Pacific Islander ___White ___Hispanic or Latino or Spanish Origin __Multiracial or Biracial
5. **What school do you go to?** ___West Lafayette __Wea Ridge
6. **What time is the class you had the guest lecture at? (for West Lafayette)**

   ___8:05-8:53am ___ 9:51-10:39 am ___10:44-11:32am ___12:40-1:32 pm ___1:37-2:25 pm
7. **Teacher? (for Wea Ridge)**

   ___Mr. Williams

   ___Mr. Frauhiger
8. **Class Time? (for Mr. Williams)**

   __7:55-8:39am __8:43-9:27am __9:31-10:15am __11:07-11:51am __11:55-12:39pm __1:14-2:03pm

9. **Class Time? (for Mr. Frauhiger)**

   ___10:19-11:03am __11:07-11:51am

10. **What are the last three digits of your student ID number? _____**

The following items ask you a series of questions. The questions are not graded. If you do not know the answer to a question, that is fine. Please respond with "I do not know."

Listening Knowledge

1. DARVO stands for deny, argue, reply, vent, and oppose.
   a. True
   b. False
   c. I do not know
2. It is important to engage in active empathic listening when someone is telling you a difficult topic.
   a. True
   b. False
   c. I do not know
3. We speak when we listen.
   a. True
   b. False
   c. I do not know
4. Effective listening can help one obtain help.
   a. True
   b. False
   c. I do not know
5. It is important to paraphrase content heard, ask for clairfications when needed, engage in feedback, display empathy, and to be open when it comes to overcoming barriers to listening/listening improvement.
   a. True
   b. False
   c. I do not know

EDs Knowledge

1. Eating disorders only impact women.
   a. True
   b. False
   c. I do not know
2. A common psychological risk factor of eating disorders includes obsessive thoughts.
   a. True
   b. False
   c. I do not know
3. EDs are not genetic.
   a. True
   b. False

c. I do not know

4. Common social risk factors of eating disorders include weight talk and weight teasing.
    a. True
    b. False
    c. I do not know
5. Eating disorders do not have one of the highest death rates out of all mental illnesses.
    a. True
    b. False
    c. I do not know

Self-Efficacy

1. "I wouldn't know how to listen if someone disclosed to me that they had an eating disorder."
    1. Strongly disagree 2. Disagree 3. Somewhat disagree 4. Neutral 5. Somewhat agree 6. Agree 7.Strongly agree
2. "I wouldn't even know how to begin listening to this person that has an eating disorder."
    1. Strongly disagree 2. Disagree 3. Somewhat disagree 4. Neutral 5. Somewhat agree 6. Agree 7. Strongly agree
3. "I can't think of any way to listen to them about their eating disorder."
    1. Strongly disagree 2. Disagree 3. Somewhat disagree 4. Neutral 5. Somewhat agree 6. Agree 7. Strongly agree

4. "I don't know how to even approach that they have an eating disorder."
    1. Strongly disagree 2. Disagree 3. Somewhat disagree 4. Neutral 5. Somewhat agree 6. Agree
    7. Strongly agree

OARS Knowledge

1. OARS stands for open questioning, answering, restating, and solving.
    a. True
    b. False
    c. I do not know
2. It is important to ask as many questions as possible in a row so you can get all of the information you need quickly.
    a. True
    b. False
    c. I do not know
3. While engaging in OARS, it is important to be positive and supportive.
    a. True
    b. False
    c. I do not know
4. OARS does not create "mutual understanding".
    a. True
    b. False
    c. I do not know
5. While engaging in OARS, it is important to start with the word "I".

a. True
b. False
c. I do not know

Righting Reflex Knowledge

1. When listening, you want to make sure to engage in the righting reflex.
    a. True
    b. False
    c. I do not know
2. When using the righting reflex, the listener uses more of a guiding style of communication.
    a. True
    b. False
    c. I do not know
3. Engaging in the righting reflex consists of wanting to fix what is wrong and advising to others what they should be doing.
    a. True
    b. False
    c. I do not know
4. When one uses the righting reflex, they can make the discloser not feel heard and result in the discloser not feeling motivated to engage in behavior change.
    a. True
    b. False
    c. I do not know
5. Authorizing is an example of a verb used when one uses the righting reflex.
    a. True
    b. False
    c. I do not know

APPENDIX D. STUDENT ASSENT FORMS

The following includes information about the study and asks you to agree to participate in this study.

Research Project Number [to be completed after IRB has approved the protocol]

RESEARCH PARTICIPANT ASSENT FORM

Assessing the Efficacy of an Eating Disorder Communication Intervention Among Adolescents
Ashleigh Shields and Dr. Marifran Mattson
Purdue University
Brian Lamb School of Communication

Key Information
Please take time to review this information carefully. This research study will ask you to fill out three surveys that each will last 10-15 minutes before, after, and a month after a guest lecture you will have within your health class. *Your participation in this survey is voluntary, which means that you may choose not to participate at any time without penalty or loss of benefits to which you are otherwise allowed. This will also not impact your grade in this class*. You may ask questions to the researchers about the study whenever you would like. If you decide that you would like to participate in the survey, you will continue on with the survey. Please be sure you understand what you will do and any possible risks or benefits.

What is the purpose of this study?
As part of your regular class content, within the topic of mental health, Ashleigh Shields, a doctoral candidate at Purdue University within the Brian Lamb School of Communication, will be guest lecturing on listening and eating disorders. Specifically, listening within the context of eating disorders. In terms of research, Ashleigh wishes to see which class activity is better. Specifically, if a question and answer (Q&A) activity or an activity involving two people, role-playing is better at increasing the knowledge and confidence of students regarding listening and eating disorders. We would like to enroll 200 students in this study.

What will I do if I choose to be in this study?
You will receive a forwarded email from your health teacher with Ashleigh's instructions regarding a link to a brief survey that will take you about 10-15 minutes to complete. This will be sent the day before the lecture [the exact date will be included when emailed to the schools]. You will then receive the same survey the day after the presentation to see how your knowledge and confidence changed [the exact date will be included when emailed to the schools]. Then a month after the guest lecture, you will receive the same and final email with the link to the survey [the exact date will be included when emailed to the schools]. *All the surveys will have the same questions, will be online, anonymous, and will have no influence on your grade in the class.*

How long will I be in the study?

Your total time commitment would equal 30-45 minutes. Specifically, each of the three surveys will last 10-15 minutes long. These three surveys will be administered before the guest lecture [the exact date will be included when emailed to the schools] after the guest lecture [the same date will be included when emailed to the schools], and a month after the guest lecture [the exact date will be included when emailed to the schools].

What are the possible risks or discomforts?
There are no more significant risks than what you would encounter in daily life. A way risk has been reduced for this study is by asking you to provide information that does not identify who you are. Breach of confidentiality is always a risk with data, but we will take precautions to minimize this risk as described in the confidentiality section.

Are there any potential benefits?
There may be benefits to general knowledge or society.

Are there costs to me for participation?
There are no anticipated costs to participate in this research.

Will information about me and my participation be kept confidential?
Strict confidentiality of the data will be upheld. A way risk has been reduced for this study is by asking you to provide information that does not identify who you are. Therefore, no identifying information will be connected to your responses to the surveys. All results from the surveys will be stored in a password-protected computer. Results will be held for five years. After five years, all results will be destroyed. Access to the results is limited to Ashleigh Shields and Dr. Mattson. This project's research records may be reviewed by departments at Purdue University responsible for regulatory and research oversight. This study will be published in academic journals and used to help teachers and guest lecturers advise similar classes for students.

What are my rights if I take part in this study?
You do not have to participate in this research project. If you agree to participate in this study, you may decide to quit at any time without penalty. The decision for you to participate in the research will not affect your relationship with your teacher, and it will not impact your grade in your class.

However, suppose you wish not to have the information you provided to be included in the research. In that case, you could provide three pieces of information to your teacher, who can then call Ashleigh to let her know if she could please remove the individual within this class, at this school, and with the last three digits of "XXX". You will be asked to provide these three pieces of information, because it will be used to help Ashleigh compare the results pre/post/post-post-tests without providing information on your identity. Therefore, once this information is removed, Ashleigh will delete the data previously collected, and the teacher will permanently remove the information collected from you.

Additionally, the three forms of information we obtain will not be associated with the other data collected from the survey. In other words, we will utilize the data to report how many from each school, but we will not utilize the last three digits of your student ID or which class time for the

results. Instead, the other two forms of information (time of class and last three digits) will help identify who had consent (and those who did not will have their data deleted), whose data needs to be deleted (if you wish to withdrawal at any point) and to help compare their pre, post, and post-post survey.

Who can I contact if I have questions about the study?
If you have any questions, comments, or concerns about this research project, you can contact Ashleigh Shields by email or phone at (219) 246-6210; Email: shielda@purdue.edu or Dr. Marifran Mattson by email or phone (765) 494-3300; Email: mmattson@purdue.edu.

To report anonymously via Purdue's Hotline see www.purdue.edu/hotline

If you have questions about your rights while taking part in the study or have concerns about the treatment of research participants, please call the Human Research Protection Program at (765) 494-5942, email (irb@purdue.edu), or write to:
Human Research Protection Program - Purdue University
Ernest C. Young Hall, Room 1032
155 S. Grant St.
West Lafayette, IN 47907-2114

Documentation of Informed Consent
I have had the opportunity to read this consent form and have the research study explained. I have had the chance to ask questions about the research project, and my questions have been answered. If you would like a copy of this assent form, please email your health teacher.

Marifran Mattson, Ph.D. April 14, 2021
Researcher's signature Date

By proceeding, you are providing assent/permission/consent to complete this survey.

APPENDIX E. PARENT/GUARDIAN CONSENT FORMS

The following includes information about the study and asks you to agree to consent for your adolescent to participate.

Research Project Number [to be completed after IRB has approved the protocol]

RESEARCH PARTICIPANT GUARDIAN CONSENT FORM

Assessing the Efficacy of an Eating Disorder Communication Intervention Among Adolescents
Ashleigh Shields and Dr. Marifran Mattson
Purdue University
Brian Lamb School of Communication

Key Information
Please take time to review this information carefully. This research study will ask your child to fill out three surveys that each will last 10-15 minutes before, after, and a month after a guest lecture they will have within their class. Your child's participation in this survey is voluntary, which means that they may choose not to participate at any time without penalty or loss of benefits to which they are otherwise entitled. *This will also not impact your student's grade within this class.* You may ask questions to the researchers about the study whenever you would like. If you decide that your child can participate in the survey, you will be asked to sign this form, be sure you understand what your child will do and any possible risks or benefits.

What is the purpose of this study?
As part of your student's regular curriculum for their class, within the topic of mental health, Ashleigh Shields, a doctoral candidate at Purdue University within the Brian Lamb School of Communication, will be guest lecturing on listening and eating disorders. Specifically, listening within the context of eating disorders. In terms of research, Ashleigh wishes to see which class activity is better. Specifically, if a question and answer (Q&A) activity or an activity involving two people, role-playing is better at increasing the knowledge and confidence of students regarding listening and eating disorders. We would like to enroll 200 students in this study.

What will my child do if I choose to let them be in this study?
Your child will receive a forwarded email from their teacher with Ashleigh's instructions regarding a link to a brief survey that will take your child about 10-15 minutes to complete. This will be sent the day before the lecture [the exact date will be included when emailed to the schools]. Your child will then receive the same survey the day after the presentation to see how their knowledge and confidence changed [the exact date will be included when emailed to the schools]. Then a month after the guest lecture, your child will receive the same and final email with the link to the survey [the exact date will be included when emailed to the schools]. *All the surveys will have the same questions, will be online, anonymous, and will have no influence on their grade in the class.*

How long will my child be in the study?
The total time commitment of your child would equal 30-45 minutes. Specifically, each of the three surveys will last 10-15 minutes long. These three surveys will be administered before the guest lecture [the exact date will be included when emailed to the schools] after the guest lecture [the same date will be included when emailed to the schools], and a month after the guest lecture [the exact date will be included when emailed to the schools].

What are the possible risks or discomforts?
There are no more significant risks than your child would encounter in daily life. A way risk has been minimized for this study is by asking your child to provide information that does not identify who they are. Breach of confidentiality is always a risk with data, but we will take precautions to minimize this risk as described in the confidentiality section.

Are there any potential benefits?
There may be benefits to general knowledge or society.

Are there costs to my child for participation?
There are no anticipated costs to participate in this research.

Will information about my child and my child's participation be kept confidential?
Strict confidentiality of the data will be upheld. A way risk has been minimized for this study is by asking your child to provide information that does not identify who they are. Therefore, no identifying information will be connected to your child's responses to the surveys. All the data files will be stored in a password-protected computer. Data will be held for five years. After five years, all data records will be destroyed. Access to the data is limited to Ashleigh Shields and Dr. Mattson. This project's research records may be reviewed by departments at Purdue University responsible for regulatory and research oversight. This study will be published in academic journals and used to help teachers and guest lecturers advise similar classes for students.

What are my child's rights if they take part in this study?
Your child does not have to participate in this research project. If you agree to your child being able to participate in this study, your child may decide to quit at any time without penalty. The decision for your child to participate in the research will not affect their relationship with their teacher, and it will not impact their grade in this class.

However, suppose your child wishes not to have the information they provided be included in the research. In that case, they could provide three pieces of information to their teacher, who can then call Ashleigh to remove the individual within this class, at this school, and with the last three digits of "XXX". These three pieces of information will be asked of you and your child to provide, because it will be used to help Ashleigh compare the results pre/post/post-post-tests without providing information on the identity of your child. Therefore, once this information is removed, Ashleigh will delete the data previously collected, and the teacher will permanently remove the information collected from your child.

Additionally, the three forms of information we obtain will not be associated with the other data collected from the survey. In other words, we will utilize the data to report how many from each school, but we will not utilize the last three digits of their student ID or which class time for the results. Instead, the other two forms of information (time of class and last three digits) will help identify who had consent (and those who did not will have their data deleted), whose data needs to be deleted (if they wish to withdrawal at any point) and to help compare their pre, post, and post-post survey.

Who can I contact if I have questions about the study?
If you have any questions, comments, or concerns about this research project, you can contact Ashleigh Shields by email or phone at (219) 246-6210; Email: shielda@purdue.edu or Dr. Marifran Mattson by email or phone (765) 494-3300; Email: mmattson@purdue.edu.

To report anonymously via Purdue's Hotline see www.purdue.edu/hotline

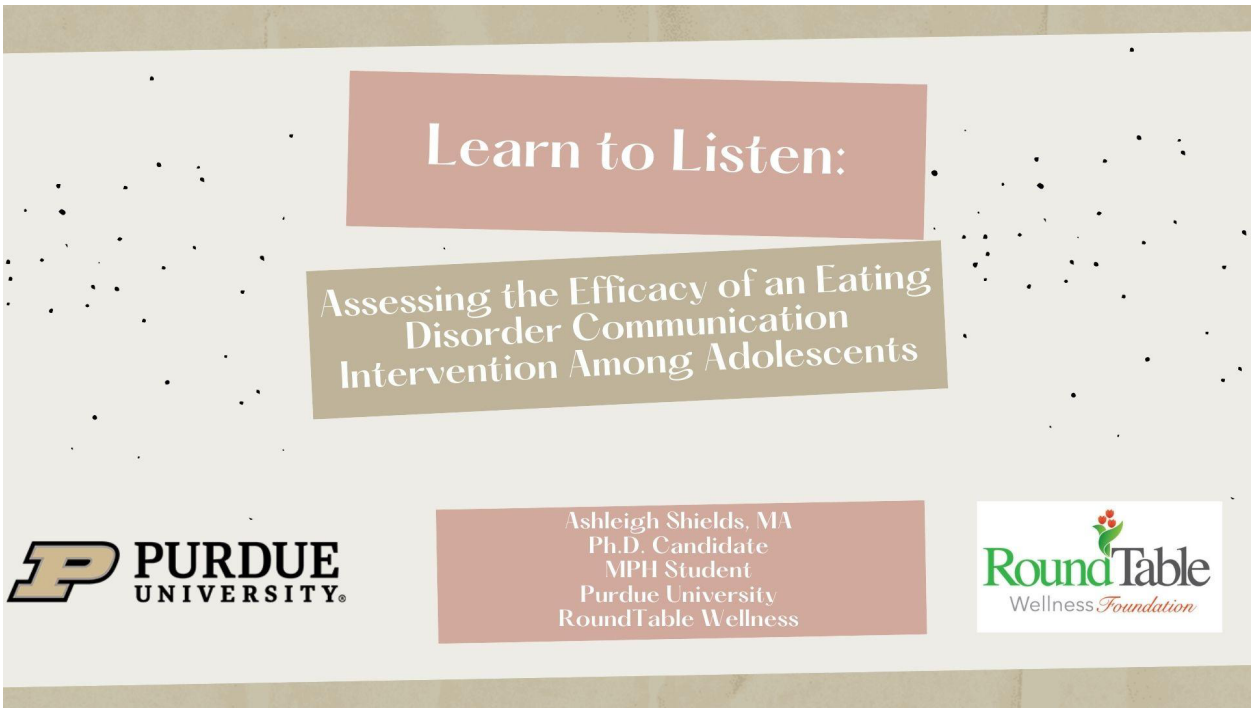
If you have questions about your rights while taking part in the study or have concerns about the treatment of research participants, please call the Human Research Protection Program at (765) 494-5942, email (irb@purdue.edu), or write to:
Human Research Protection Program - Purdue University
Ernest C. Young Hall, Room 1032
155 S. Grant St.
West Lafayette, IN 47907-2114

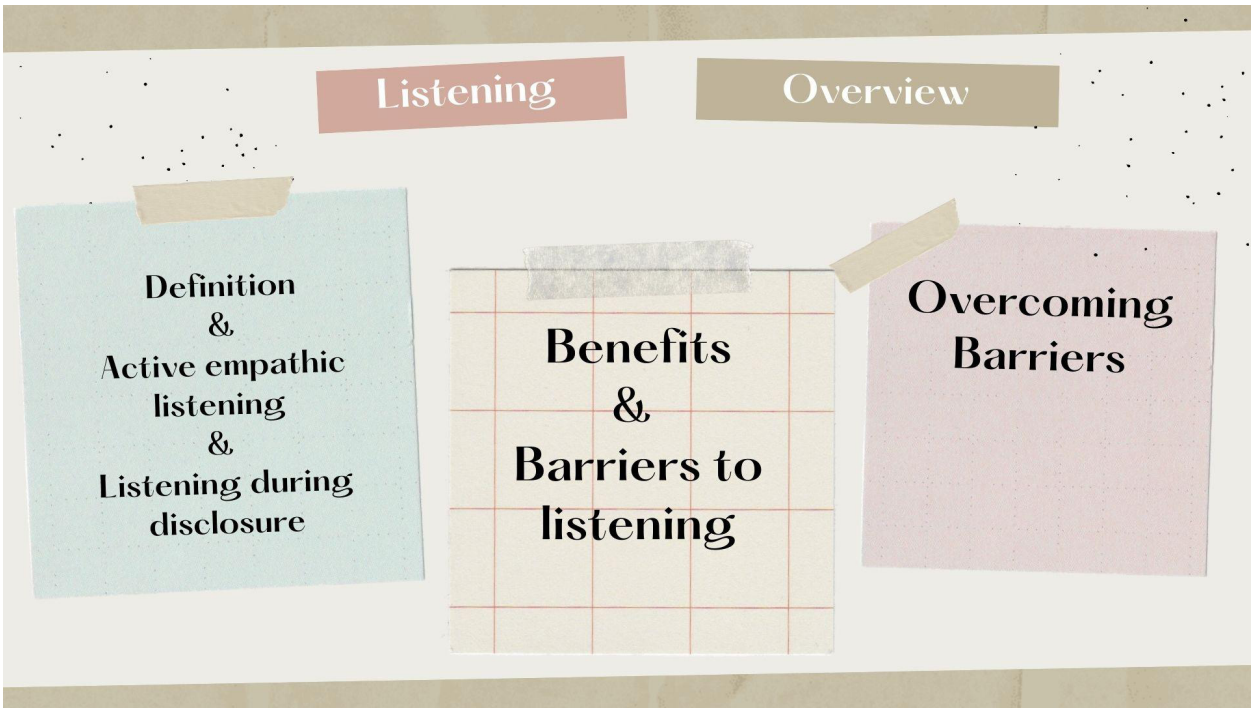
Documentation of Informed Consent
I have had the opportunity to read this consent form and have the research study explained. I have had the chance to ask questions about the research project, and my questions have been answered. If you would like a copy of this consent form, please email your child's health teacher. I consent my student to participate in the research project described above.

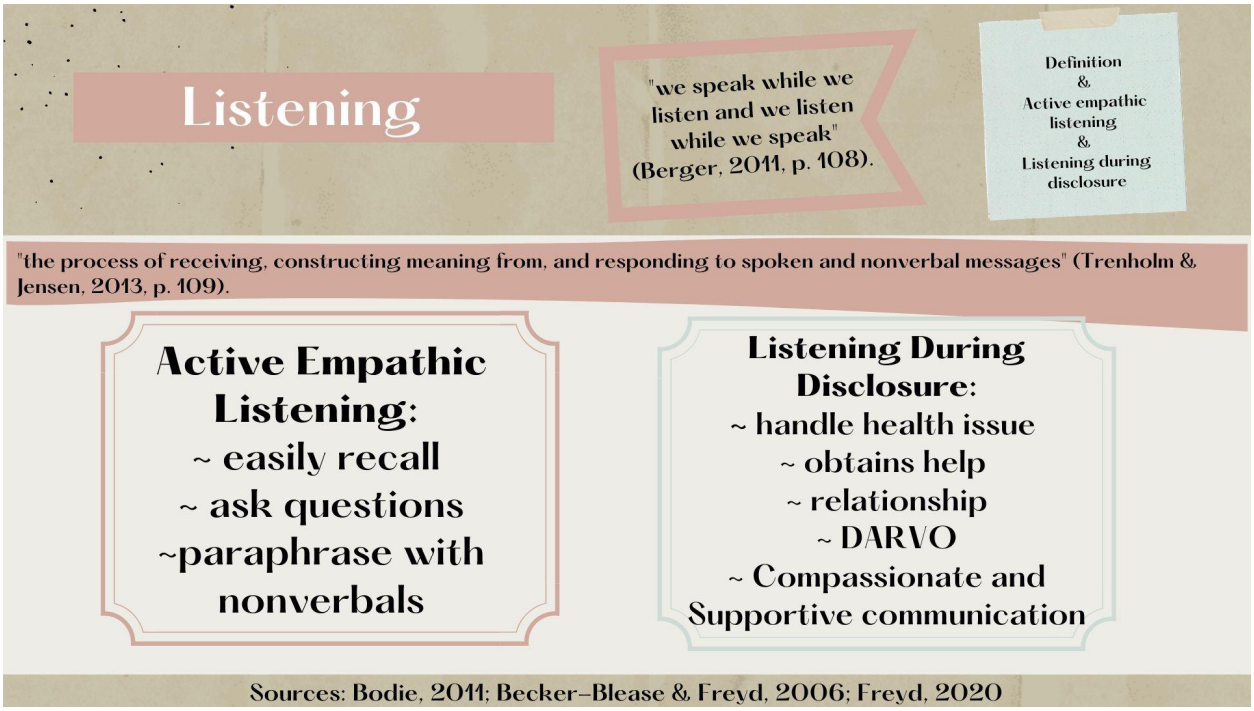
Marifran Mattson, Ph.D. April 14, 2021
Researcher's signature Date

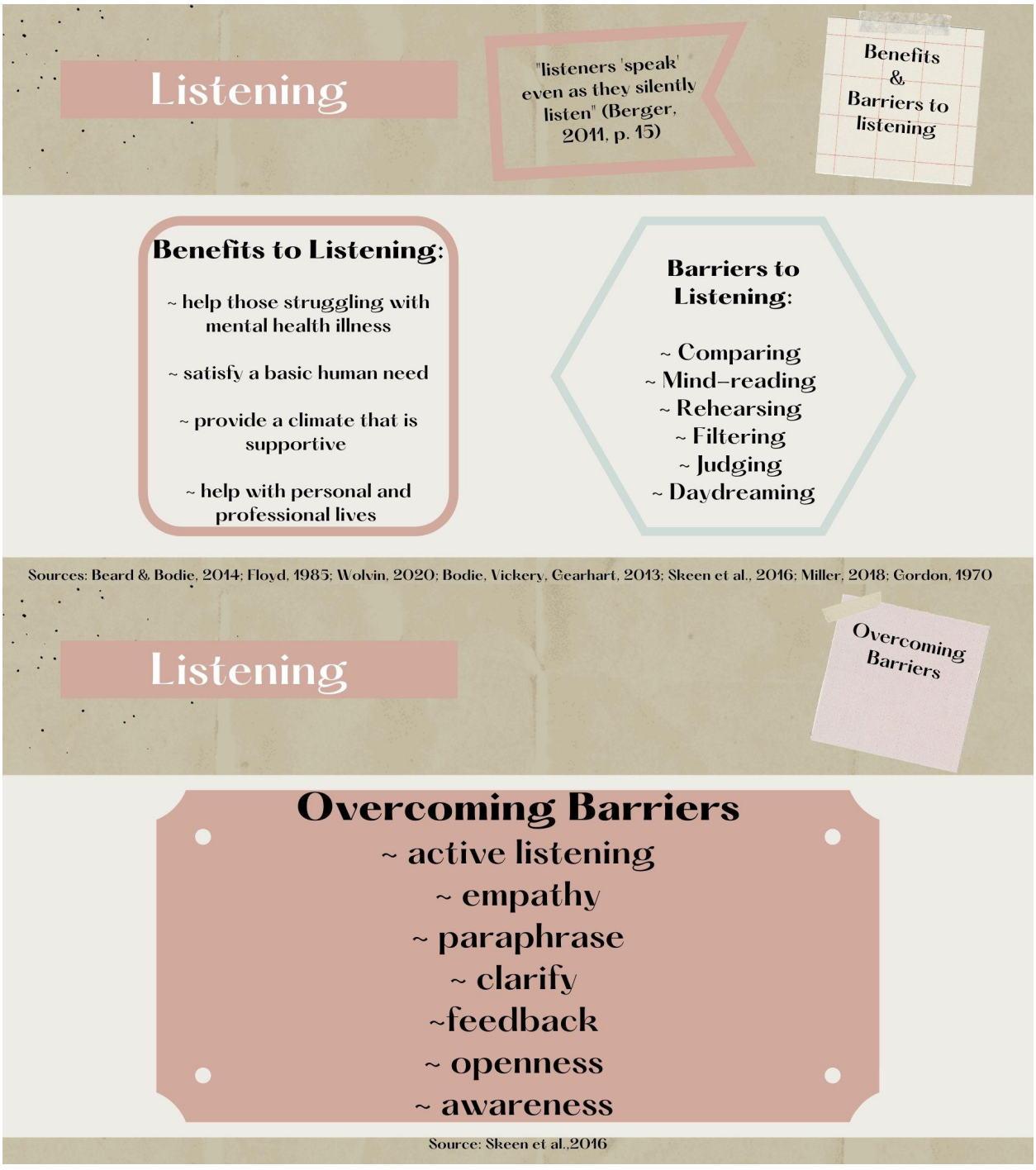
My student has permission to take the surveys for this study: yes or no
Instead of providing the name of your child, due to anonymity, we ask that you provide the following information:
The students last three digits of their student ID: _____
Class time: _____
School name: _____
Parent/Guardian Name: _____ Date:_____
Parent/Guardian Signature:_____
Thank you!

APPENDIX F. INTERVENTION PRESENTATION SLIDES




Listening
Overview
Definition
&
Active empathic
listening
&
Listening during
disclosure
Benefits
&
Barriers to
listening
Overcoming
Barriers


Listening
"we speak while we listen and we listen while we speak" (Berger, 2011, p. 108).
Definition
&
Active empathic
listening
&
Listening during
disclosure
"the process of receiving, constructing meaning from, and responding to spoken and nonverbal messages" (Trenholm & Jensen, 2013, p. 109).
Active Empathic Listening:
~ easily recall
~ ask questions
~paraphrase with nonverbals
Listening During Disclosure:
~ handle health issue
~ obtains help
~ relationship
~ DARVO
~ Compassionate and Supportive communication
Sources: Bodie, 2011; Becker-Blease & Freyd, 2006; Freyd, 2020


Listening
"listeners 'speak' even as they silently listen" (Berger, 2011, p. 15)
Benefits & Barriers to listening
Benefits to Listening:
~ help those struggling with mental health illness
~ satisfy a basic human need
~ provide a climate that is supportive
~ help with personal and professional lives
Barriers to Listening:
~ Comparing
~ Mind-reading
~ Rehearsing
~ Filtering
~ Judging
~ Daydreaming
Sources: Beard & Bodie, 2014; Floyd, 1985; Wolvin, 2020; Bodie, Vickery, Gearhart, 2013; Skeen et al., 2016; Miller, 2018; Gordon, 1970
Listening
Overcoming Barriers
Overcoming Barriers
~ active listening
~ empathy
~ paraphrase
~ clarify
~feedback
~ openness
~ awareness
Source: Skeen et al.,2016


Eating Disorders
Overview
Definition & Common Symptoms
Risk Factors
Disordered Eating
Main Types
Startling Statistics
Myths & Misconceptions
Resources


Eating Disorders
Definition & Common Symptoms
physical and mental illness
impacts everyone
concerned about weight and body shape
Social
Emotional
Physical

Eating Disorders

Risk Factors

Psychological

Social

Physical

Eating Disorders

Disordered Eating

Relationship with food

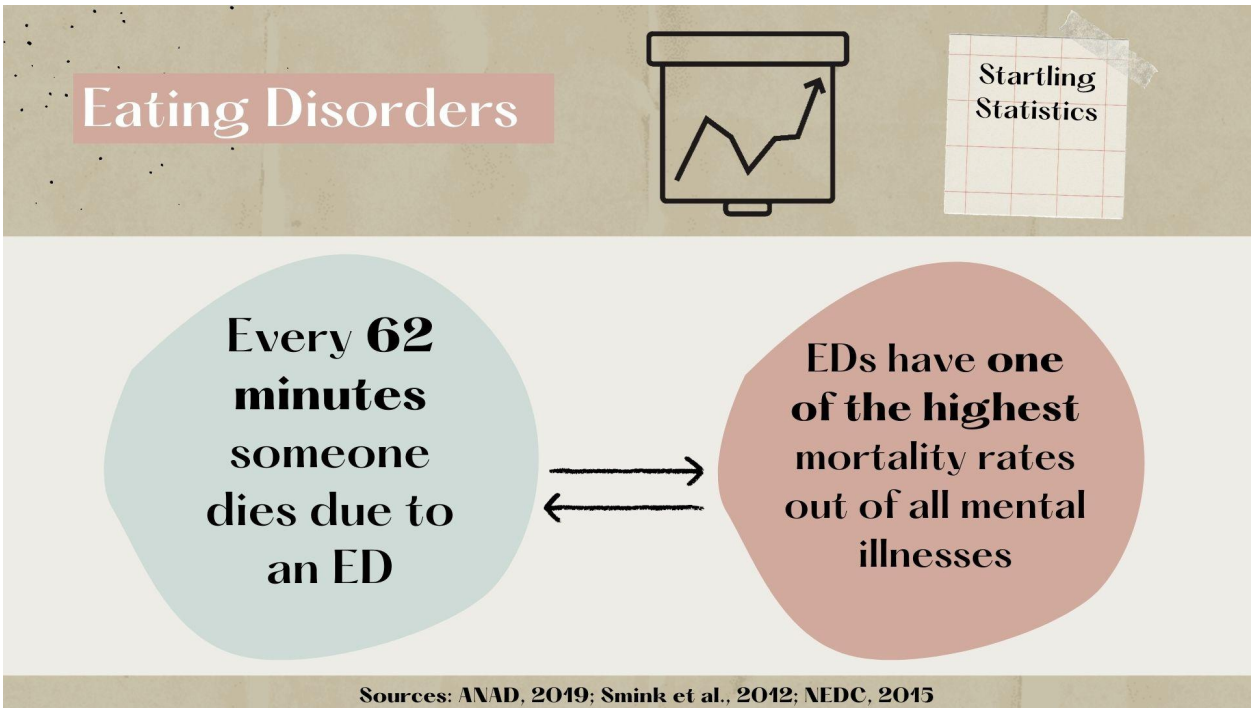
Voices in your head

Good or Bad Food

Negative Feelings

Diets and Limiting access to food


Eating Disorders
Main Types
Anorexia Nervosa
Bulimia Nervosa
Binge Eating Disorder
OSFED/EDNOS

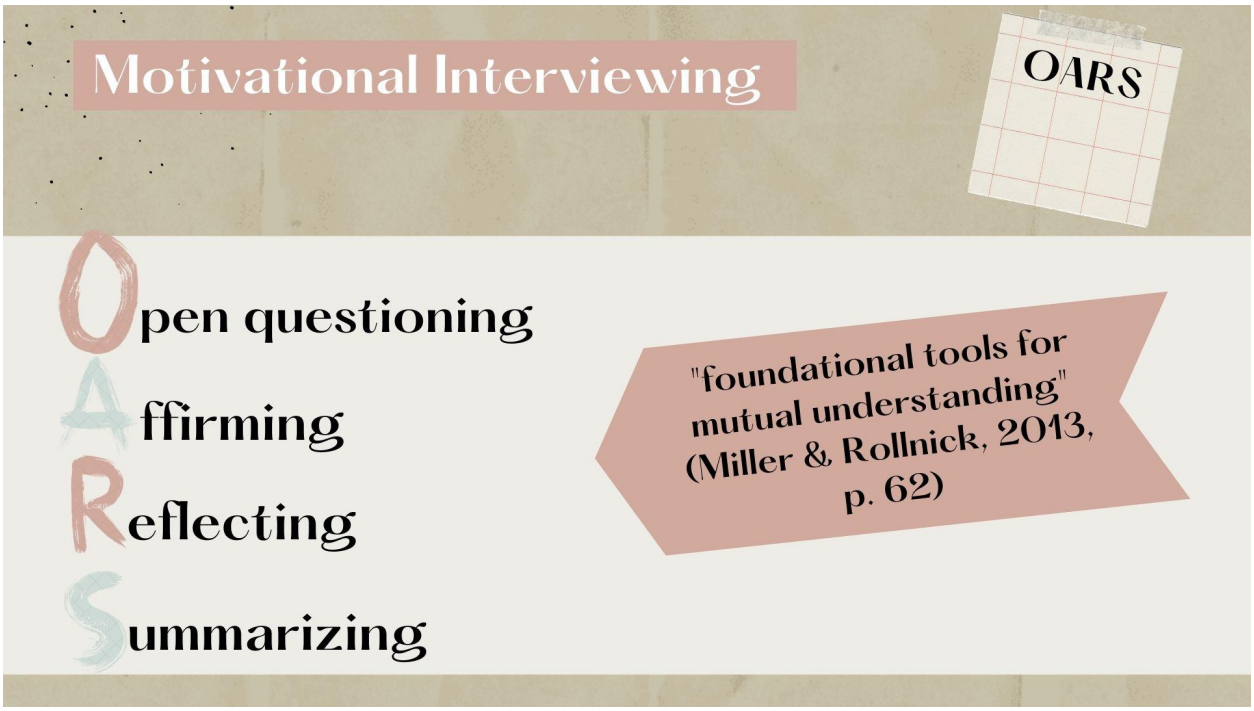

Eating Disorders
Startling Statistics
Every 62 minutes someone dies due to an ED
EDs have one of the highest mortality rates out of all mental illnesses
Sources: ANAD, 2019; Smink et al., 2012; NEDC, 2015


Eating Disorders
Myths
&
Misconceptions
Are NOT
a "fad"!
Not just
females!

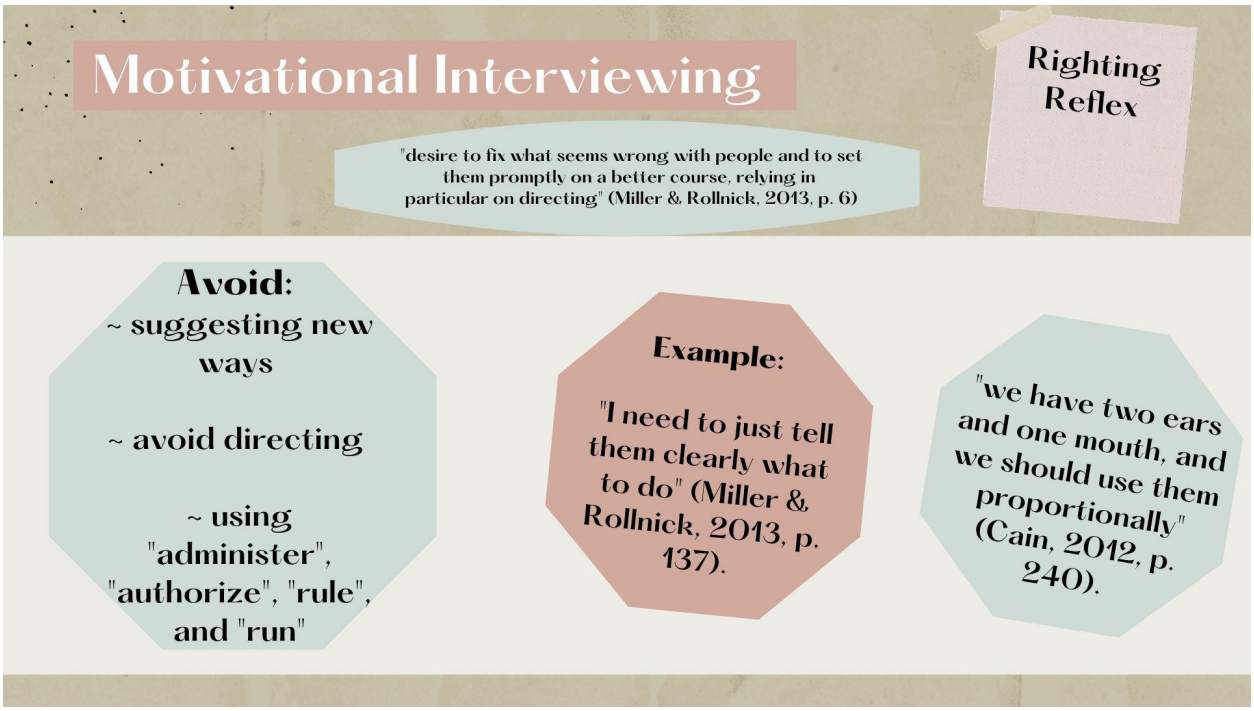

Eating Disorders
Resources
Learn More
RoundTable Wellness
Website:
https://roundtablewellness.com/about/
Phone: 765-630-7222
NEDA
NEDA
Website:
https://www.nationaleatingdisorders.org/
Phone Number: 1-800-931-2237
NATIONAL
SUICIDE
PREVENTION
LIFELINE
1-800-273-TALK (8255)
National Suicide Hotline
Phone Number: 1-800-273-825

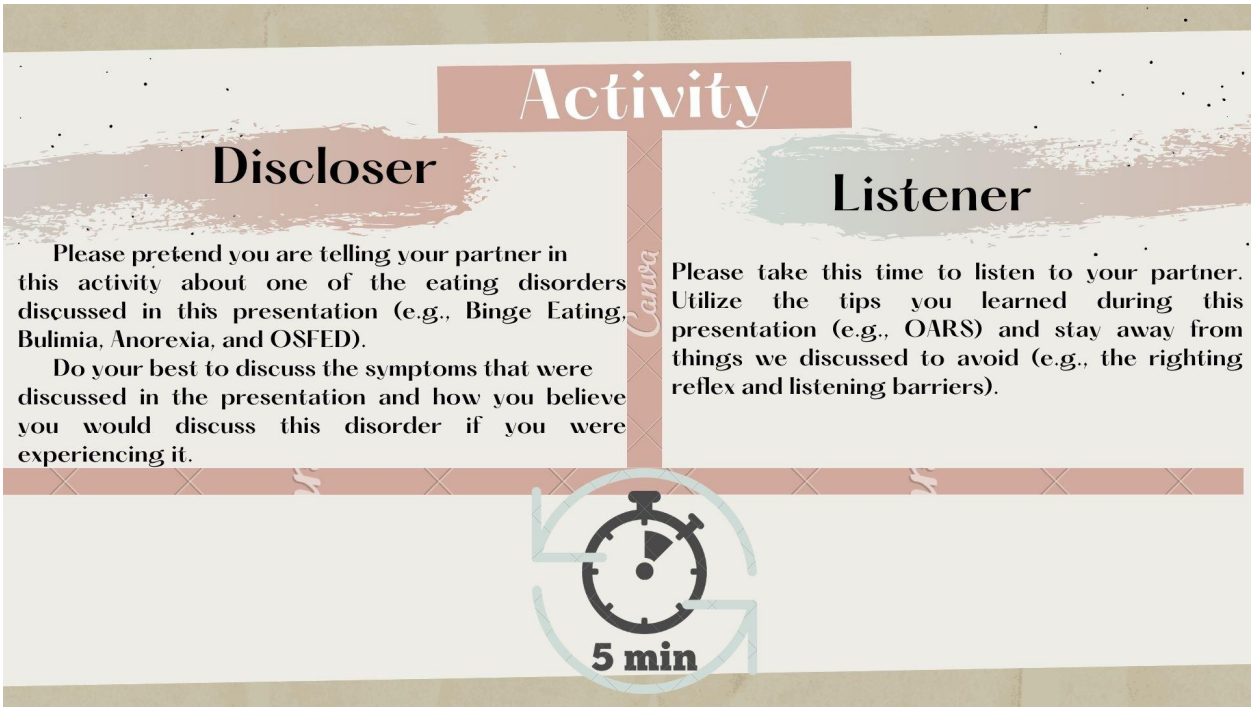

Motivational
Interviewing
Overview
Definition of MI
OARS
Righting Reflex


Motivational Interviewing
Definition of MI
"client-centered counseling style"
(Magill & Hallgren, 2019, p. 1)


Motivational Interviewing
OARS
Open questioning
Affirming
Reflecting
Summarizing
"foundational tools for mutual understanding" (Miller & Rollnick, 2013, p. 62)


Motivational Interviewing
OARS EX:
"What makes you feel this way?"
"How can I help you?
No more than 3 questions in a row!
Utilize "what" or "how" instead of "why
"Thank you for talking to me about this!"
"Listening to what you are currently going through, I am not sure I would have been able to be as open about your situation as you have. You are so strong."
Have good eye contact and body posture that shows you are listening.
"So you feel...."
negative about your body and food
depressed or anxious about your body and food
repeat, paraphrase, reflect, shift and reframe
"It sounds like you..."
are avoiding those close to you
are limiting how much you eat and are working out a lot.
"You're wondering if..."
I am aware of anyone that can help.
I have had a similar experience.
"I want to make sure I understand..."
"This is what I heard: please tell me if I am missing anything or not hearing what you said correctly."
**Paraphrase **


Motivational Interviewing
"desire to fix what seems wrong with people and to set them promptly on a better course, relying in particular on directing" (Miller & Rollnick, 2013, p. 6)
Righting Reflex
Avoid:
~ suggesting new ways
~ avoid directing
~ using "administer", "authorize", "rule", and "run"
Example:
"I need to just tell them clearly what to do" (Miller & Rollnick, 2013, p. 137).
"we have two ears and one mouth, and we should use them proportionally" (Cain, 2012, p. 240).


Activity
Discloser
Please pretend you are telling your partner in this activity about one of the eating disorders discussed in this presentation (e.g., Binge Eating, Bulimia, Anorexia, and OSFED).
Do your best to discuss the symptoms that were discussed in the presentation and how you believe you would discuss this disorder if you were experiencing it.
Listener
Please take this time to listen to your partner. Utilize the tips you learned during this presentation (e.g., OARS) and stay away from things we discussed to avoid (e.g., the righting reflex and listening barriers).
5 min


Thank you!
Stay Safe!
Ashleigh Shields
Email:
Shielda@purdue.edu

APPENDIX G. EMAILS

Parent/Guardian Consent Email
[teacher would start their email saying that they are forwarding an email from their child's future guest lecturer]

Hi Parents/Guardians,
My name is Ashleigh Shields, and I am a doctoral candidate at Purdue University studying health communication. Specifically, listening and disclosure within the context of stigmatized health topics (such as eating disorders) among interpersonal relationships (e.g., friends and peers). I will be guest lecturing on listening skills and tips, information and resources about eating disorders, and how to apply listening skills within the context of eating disorders through a well-known approach and tool (e.g., motivational interviewing). All of which can be used in various aspects of your child's life moving forward, and all address the topic of your student's health class, mental health. As a part of my schooling at Purdue, my dissertation covers the subject of this guest lecture. Therefore, I will be implementing a survey before, after, and a month after the guest lecture to see how effective the guest lecture is on improving student's knowledge and confidence when it comes to how to listen well with others (especially friends and peers) within the context of eating disorders. Thus, if your child is 18 years old and above, please feel free to disregard this email since they can provide consent.
The survey is optional and anonymous. Meaning, I will not ask for your child's name or any identifying information, except for the last three digits of their student ID, class time, and school, so that I can compare the before, after, and month after surveys. The survey will not impact the grade of your child. Below is a link to the consent form that discusses a little more information about the study, and you will be asked to select if you will or will not let us obtain results from your child's survey. Therefore, every student in your child's class will receive the link to the survey. However, if your child does fill out the survey and you do not wish for their anonymous results to be collected, utilizing the three forms of information provided by your child and you within the consent form, I will delete the data affiliated with that information.
However, if you choose yes for your child's anonymous results to be collected, we will keep the data and none of the results will be traced back to your child.

Link: [I will insert Qualtrics link here]
Please do not hesitate to reach out to me at shielda@purdue.edu or [your child's teacher] if you have any questions, comments, or concerns,
Thank you so much for your time. I appreciate it.
Sincerely,
Ashleigh Shields

Student Emails
[teacher would start their email saying that they are forwarding an email from their future guest lecturer]
[This will be emailed to students the day before the guest lecture-Pre-Test Survey]

Hi Students,

My name is Ashleigh Shields, and I will be your upcoming guest speaker for your health class. I am a doctoral candidate at Purdue University studying health communication. Specifically, listening and disclosure within the context of eating disorders among friends and peers. As a part of my schooling at Purdue, I will be implementing a survey before the guest lecture, after the guest lecture, and a month after to see how effective the class is on improving your knowledge and confidence when it comes to how to listen well with others (especially friends and peers) within the context of eating disorders.
The survey is optional and anonymous. Meaning, I will not ask for your name or any identifying information, except for the last three digits of your student ID, class time, and school, so that I can compare the before, after, and month after surveys. This will not impact your grade in this class. Below is a link to the survey. You will be asked to read a brief description of the survey, and by continuing to the survey, that would be your way of approving your participation in this survey. I will also be emailing your parents/guardians a similar form and they will have to approve if we can keep the results of the survey, you fill out, if you decide to do so. In other words, if you complete the survey and your parents/guardians do not approve us collecting your results, then we will delete your responses with the information asked above (the last three digits of your student ID, class time, and school)

Link: [I will insert Qualtrics link here]
Please let your teacher know if you have questions, comments, or concerns!
Thank you so much for your time!
Sincerely,
Ashleigh Shields

[teacher would start their email saying that they are forwarding an email from Ashleigh Shields, their past guest lecturer]
[This will be emailed to students the day after the guest lecture-Post-Test Survey]

Hi Students,
Below is a link to the survey you completed before the guest lecture on listening and eating disorders. Therefore, please complete the survey again to see how effective the guest lecture was on improving your knowledge on listening and eating disorders. Again, this survey is optional and anonymous and will not impact your grade in this class.

Link: [I will insert Qualtrics link here]
Please let your teacher know if you have questions, comments, or concerns!
Thank you so much for your time!
Sincerely,
Ashleigh Shields

[teacher would start their email saying that they are forwarding an email from Ashleigh Shields, their past guest lecturer]
[This will be emailed to students the month after the guest lecture-Post-Post-Test Survey]

Hi Students,

Below is a link to the survey for the guest lecture on listening and eating disorders we had a month ago. Therefore, please complete the survey again to see how effective the guest lecture was on improving your knowledge on listening and eating disorders. Again, this survey is optional and anonymous and will not impact your grade in this class or future classes.

Link: [I will insert Qualtrics link here]
Please let your teacher know if you have questions, comments, or concerns!
Thank you so much for your time!

Sincerely,
Ashleigh Shields