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COERCIVE AND COMPULSIVE TREATMENT OF EATING DISORDERS: SURVEYING
TREATMENT PROVIDERS' ATTITUDES AND BEHAVIOR

A Dissertation

Presented to the Faculty of
Antioch University Seattle
Seattle, WA

In Partial Fulfillment
Of the Requirements of the Degree
Doctor of Psychology

By

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April 2020

COERCIVE AND COMPULSIVE TREATMENT OF EATING DISORDERS: SURVEYING
TREATMENT PROVIDERS' ATTITUDES AND BEHAVIOR

This dissertation, by Jessica Cowan, has
been approved by the committee members signed below
who recommend that it be accepted by the faculty of
Antioch University Seattle at Seattle, WA in partial fulfillment
of the requirements for the degree of

DOCTOR OF PSYCHOLOGY

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ABSTRACT

COERCIVE AND COMPULSIVE TREATMENT OF EATING DISORDERS: SURVEYING TREATMENT PROVIDERS' ATTITUDES AND BEHAVIOR

Jessica Cowan

Antioch University Seattle

Seattle, WA

Stigma toward individuals with eating disorders is common and well-documented. Individuals with eating disorders regularly report experiencing stigma associated with perceptions that they are to blame for their illness, that their illness is trivial compared to other conditions, or that they are engaging in disordered behavior to gain attention. These stigmatizing attitudes toward eating disorders are also reported by the general public and healthcare professionals, including those who treat eating disorders. Treatment of these illnesses at all levels of care often include paternalistic approaches such as coercion and compulsion that can have both adverse and advantageous consequences. While there are ethical, clinical, and legal justifications for these treatment approaches, this study provides a novel exploration of the relationships between stigma toward individuals with eating disorders and coercive and compulsive treatment. This was accomplished using a survey methodology to assess the attitudes and treatment practices of treatment providers across the United States. The results of this study suggest that there is no significant relationship between treatment providers' attitudes toward individuals with eating disorders and coercive or compulsive treatment methods. Implications for clinical practice and future research are discussed and center on the need for additional inquiry to better understand the complexities of these two variables in light of the ongoing debate concerning the risks and

benefits of coercive and compulsive treatment. This dissertation is available open access at AURA, <http://aura.antioch.edu> and Ohio Link ETD Center, <https://etd.ohiolink.edu>

Keywords: Provider stigma, eating disorders, coercive and compulsive treatment, survey research

Dedication

This dissertation is dedicated to all of the individuals I was honored to work with during their fight for recovery. Thank you for sharing your experiences with me, for allowing me to be a part of, and a witness to, your process, and for encouraging me to do this work. I hope to live up to your expectations.

Acknowledgements

There are not enough words to thank my husband, CJ, for his seemingly endless patience, pep-talks, unconditional (?) love, and when all else failed, shots of tequila, that got me/us through this and the other eight circles of grad school.

It goes without saying that this work would not have been possible without my committee. However, I feel uniquely blessed to have had the guidance and support of an exceptional group of people whose influence and commitment to my growth far exceed this project. Not all students are so lucky. To my chair, Dr. Heffner, thank you for your pervasive good humor and for keeping me grounded and focused amidst the unexpected and my tendency toward(s) the expansive; in scope and in sentences. Dr. Dalbey, thank you for your curiosity and enthusiasm for this research right from the start, your insights from training, education, and medical perspectives, and for sticking with me. Dr. Albert, thank you for jumping wholeheartedly into this project, for asking the questions that keep me true to myself and the core values of this work that we do; these are only a few of myriad ways that you've set an example of the kind of clinician, mentor, supervisor, and human that I aspire to be.

To my friends and classmates Bonnie, Leja, Jenn, and V, thank you; I never would have imagined that grad school would include laughing so often and so hard, through FOD and STH, “abstract insight into illness,” and everything in between. To my family outside of grad school, Sara, Chris, Sara, Kent, Richard, Alfred, Elizabeth, Aaron, Shan...thank you for listening, having my back, not asking “are you done?,” and hanging in there with me despite years of neglect. I love you. To Dante, the best dissertation-writing companion and dog-friend a girl could ask for, I miss you every day kiddo.

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CHAPTER I: INTRODUCTION

The purpose of this study was to explore the prevalence and potential relationships between stigmatizing attitudes held by treatment providers toward individuals with eating disorders, and their attitudes toward and use of coercive/compulsive treatment methods. The inspiration for this research was rooted in my experiences working as a milieu therapist in an internationally recognized eating disorder treatment program, as well as conversations with individuals in recovery from eating disorders concerning their experiences of coercive/compulsive treatment and perceived stigmatization. The field of eating disorder treatment aspires to provide the most effective and respectful interventions for these complex disorders and it is my hope that this research enhances our awareness of the potential influence that our attitudes, known to us or unknown, may have in our clinical decision-making processes.

Significance

Research shows that one in four individuals will experience clinically significant symptoms of at least one mental illness in any given year (Centers for Disease Control and Prevention [CDC], 2013). While this statistic suggests a degree of generalized vulnerability to mental illness, stigmatizing attitudes toward individuals with mental illnesses nonetheless remain prevalent (Graham, Tierney, Chisholm, & Fox, 2020; Lauber, Nordt, Falcato, & Rössler, 2004; Link, Phelan, & Sullivan, 2017; Oexle & Corrigan, 2018; Overton & Medina, 2008; Stuart, Sartorius, & Thornicroft, 2018; Thapliyal, Conti, Bandara, & Hay, 2020). These attitudes have been identified in populations around the world and can have significant impacts on the health and wellbeing of those with mental illnesses, including limiting access to care, impeding healing and recovery, and other adverse consequences (Ali et al., 2017; Graham et al., 2020; Link et al., 2017; Stuart et al., 2018).

Adverse consequences of stigma toward mental illness are such a significant threat to public health that organizations such as the CDC, World Health Organization (WHO), National Institute of Mental Health (NIMH), American Psychiatric Association (APA), and the U.S. Department of Health and Human Services have both separately and collectively called for specific interventions to address the prevalence and consequences of stigma toward mental illness (CDC, n.d.; Ricci & Dixon, 2015; U.S. Department of Health and Human Services, 2001, 1999).

Addiction and eating disorders are among the most stigmatized of all mental illnesses (Dimitropoulos, Freeman, Muskat, Domingo, & McCallum, 2016; Easter, 2012; Gallagher, Sonnevile, Hazzard, Carson, & Needham, 2019; MacLean et al., 2015; Pescosolido, Medina, Martin, & Long, 2013; Roehrig & McLean, 2010; Veillette, Serrano, & Brochu, 2018). Similar to individuals who have addiction disorders, individuals with eating disorders are subject to being stigmatized for both having a mental illness and for the perception of their volition, or choice, in the onset or maintenance of the disorder (Crisafulli, Thompson-Brenner, Franko, Eddy, & Herzog, 2010; Galbraith, Elmquist, White, Grilo, & Lydecker, 2019; Graham et al., 2020; Lauber et al., 2004; Veillette et al., 2018). The NIMH states that “there is a commonly held view that eating disorders are a lifestyle choice” (n.d.). This perception and other stigmatizing beliefs or stereotypes can lead to dismissive, trivializing, paternalistic, or other negative attitudes and behavior toward individuals with eating disorders (Bannatyne & Stapleton, 2016; Crisafulli et al., 2010; Galbraith et al., 2019; Graham et al., 2020; McArdle, Meade, & Burrows, 2016; Oexle & Corrigan, 2018; Roehrig & McLean, 2010; Thapliyal et al., 2020).

Negative attitudes and behavior associated with stigma can have adverse consequences for the individual suffering from an eating disorder including decreased self-esteem, increased

isolation, increased treatment avoidance or resistance, and other barriers to recovery (Bannatyne & Stapleton, 2016; Gaebel, Rössler, & Sartorius, 2016). Increased avoidance or resistance to treatment is a particularly salient consequence of perceived or experienced stigma given the severity and potential life-threatening nature of these conditions (Davidson, Braham, Dasey, & Reidlinger, 2019; Eddy et al., 2017; Fassino & Abbate-Daga, 2013; Hay, 2020). Experienced or perceived stigma may also play a role in the exacerbation of the ego-syntonic nature of eating disorders by increasing the individual's internalized defensiveness of their identity as attached to the disorder (Fassino & Abbate-Daga, 2013; Hay & Cho, 2013; Kaplan & Garfinkel, 1999; MacDonald, 2002; Martens, 2015; McNicholas, O'Connor, O'Hara, & McNamara, 2015; Zugai & Roche, 2017).

Another potential consequence of stigma associated with eating disorders is an increased prevalence for treating clinicians to use coercive and compulsive treatment methods such as the use or threatened use of involuntary nasogastric tube feeding (Carney, Yager, Maguire, & Touyz, 2019; Gaebel & Zäske, 2011; Kendall & Hugman, 2016; Túry, Szalai, & Szumska, 2019; Verbeke, Vanheule, Cauwe, Truijens, & Froyen, 2019; Zugai & Roche, 2017; Zugai, Stein-Parbury, & Roche, 2019). Clinicians who treat eating disorders are more likely to use coercive/compulsive methods, including involuntary treatment, than clinicians treating other types of mental illness (Carney, Tait, & Touyz, 2016; Carney, Tait, Richardson, & Touyz, 2008; Carney, Tait, & Touyz, 2006; Lask, 2015; Matusek, 2011; Westmoreland, Johnson, Stafford, Martinez, & Mehler, 2017). Use of such methods is often consciously associated with an altruistic desire to positively impact treatment outcomes and, in many cases, to preserve the life of the patient (Carney et al., 2019; Clausen & Jones, 2014; Douzenis & Michopoulos, 2015; Kendall & Hugman, 2016; Medeiros, Sampaio, & Corchs, 2014; Túry et al., 2019;

Westmoreland et al., 2017). However, use of coercive/compulsive treatment may also be linked to stigmatizing attitudes held by treatment providers who adopt, knowingly or unknowingly, a paternalistic view of their roles and responsibilities in an individual's treatment and recovery process (Andersen, 2006; Bayer, 2008; Graham et al., 2020; Kendall & Hugman, 2016; Medeiros et al., 2014; Verbeke et al., 2019; Zugai, Stein-Parbury, & Roche, 2019). It is the potential relationship between stigma and coercive/compulsive treatment that was the primary focus of this dissertation study.

Purpose

This study explored the possible relationships between treatment providers' stigmatizing attitudes toward individuals with eating disorders and treatment providers' attitudes and behavior associated with coercive/compulsive treatment methods. Exploring these relationships may help to illuminate how stigma impacts clinical decision-making relative to the use of coercive/compulsive treatment methods when working with individuals with eating disorders.

There are three particularly salient reasons for exploring the connections between stigma and coercive/compulsory treatment methods. First, exploring these variables will enhance awareness of the potential impacts of clinicians' individual attitudes in the clinical decision-making and treatment process. Second, this research will lead to an expansion of the current dialogue related to the moral, ethical, or legal complexities associated with eating disorder treatment by identifying a possible confounding influence of the attitudes of providers who are at the forefronts of intervention, clinical decision making, and research in these areas. And third, this research contributes to a current gap in the literature. While existing research evaluates stigma associated with mental illness generally and eating disorders specifically, as well as separately examined coercive/compulsive treatment of mental illness generally or in the

treatment of eating disorders specifically, no research has analyzed the relationship between eating disorder-related stigma and coercive/compulsive treatment of eating disorders. The lack of research in this area leads to potentially troubling impacts because of the prevalence of the use of coercion/compulsion in eating disorder treatment and the predominance of arguments supporting the life-saving necessity of coercion/compulsion. Evidence supporting the use of involuntary treatment for eating disorders has historically centered on the ethical and legal aspects as they relate to involuntary treatment in response to medical complications of eating disorders that place the individual's health or life at risk (Douzenis & Michopoulos, 2015; Graham et al., 2020; Salafia, Jones, Haugen, & Schaefer, 2015; Túry et al., 2019; Westmoreland, Krantz, & Mehler, 2015). While these arguments are not invalid, contextually, in part or in whole, I share the view that it is in the best interests of both treatment providers and the clients that they serve, to understand what other factors, including stigma, may influence the use and evaluation of those methods (Carney, 2014; Carney et al., 2019; Graham et al., 2020; Verbeke et al., 2019).

Key Terms and Definitions

Treatment Providers

Eating disorders are complex conditions that require multidisciplinary treatment that involves medical and mental health providers (American Psychiatric Association, 2006; Gibson, Workman, & Mehler, 2019; Hay, 2020; Mehler & Andersen, 2017). Thus, the sample population for this study includes several types of medical and mental health providers, such as general medical providers and psychologists, who provide treatment or who influence treatment planning and decision making for individuals with eating disorders (Mehler & Andersen, 2017). The term treatment providers is used to collectively refer to all of the providers included in the

sample. More information on the demographics of the research sample can be found in the methodology section.

Attitude

An attitude is "a relatively enduring organization of beliefs, feelings, and behavioral tendencies toward socially significant objects, groups, events or symbols" (Hogg & Vaughan, 2005, p. 150) and, "...a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly & Chaiken, 1993, p. 1). In the context of the present evaluation, the term attitude is used to describe the beliefs and feelings held by treatment providers toward those with eating disorders, as well as the associated enacted or expressed behavior (Chiles, Stefanovics, & Rosenheck, 2018; Thompson-Brenner, Satir, Franko, & Herzog, 2012).

Paternalism

Paternalism, in the context of healthcare, refers to the explicit or implicit interference with an individual's liberty or expressed will or desire related to their healthcare needs for their benefit or in their best interests (Martens, 2015; Medeiros et al., 2014; Seo, Kim, & Rhee, 2013a; Verbeke et al., 2019). Benefit and best interest, in this context, are determined by the service provider who is empowered over the patient due to their expert status (Martens, 2015; Medeiros et al., 2014; Zugai et al., 2019).

Stigma

Stigma is defined as the negative evaluation, devaluation, or perceived illegitimacy of another person (Goffman, 1986). The term stigma is often used synonymously with bias; however bias is more precisely conceptualized as an effect of stigma (i.e., the favor or disfavor toward a stigmatized individual or condition (Hand, Robinson, & Creel, 2013; Major, Dovidio,

Link, & Calabrese, 2017; Stier & Hinshaw, 2007). Recent efforts have aimed to increase the clarity of terms used to describe, conceptualize, and measure stigma as it pertains to mental illness (A. B. Fox, Earnshaw, Taverna, & Vogt, 2017; Sandhu, Arora, Brasch, & Streiner, 2019). Fox et al. (2017) identify the differences between stigma associated with the *stigmatizer* and stigma associated with the *stigmatized* in their Mental Illness Stigma Framework (MISF) and assert the importance of clarifying these differences in research. The perspective of the stigmatizer, in this case, that of treatment providers, is the primary focus of this research. The perspective of the stigmatized to include internalized, anticipated, and experienced stigma will be acknowledged throughout as it relates to the research outcomes associated with adverse impacts of stigmatization on the stigmatized individual or population. Efforts are made by researchers to differentiate between the classifications and definitions of stigma as necessary.

Provider stigma. In an effort to concisely conceptualized the stereotypes enacted or endorsed by healthcare professionals toward the individuals they treat, Charles and Bentley (2018) use the term “provider stigma,” which they defined as “the negative attitudes, beliefs and behaviors of mental health providers directed toward their clients, whether overt or subtle” (p. 1). This definition and further clarification of stigma that is specific to the stigmatizer, who is in a healthcare role, fits within the Mental Illness Stigma Framework and recommendations (Fox et al., 2017). All references to stigmatizing attitudes or behavior among treatment providers within the present study are associated with this specific construct of stigma.

Conceptually, both implicit and explicit attitudes are applicable to provider stigma in that both can influence clinical decision making (Major et al., 2017; Medeiros et al., 2014; Stier & Hinshaw, 2007; Verbeke et al., 2019). Explicit attitudes are those that are consciously accessible; for example, a physician may know that they hold different attitudes about the care or

capacity of adolescent patients versus adult patients (Crano & Prislin, 2011; Sandhu et al., 2019). Implicit attitudes, conversely, are hidden and may manifest in ways which are unconscious (Sandhu et al., 2019). For example, a physician may have an unknown or implicit attitude related to obesity, leading to distinctions in their overall perception and perhaps treatment of individuals based on body weight (Chapman, Kaatz, & Carnes, 2013; Stier & Hinshaw, 2007).

Eating Disorders

There are several classifications of eating disorders. Broadly, eating disorders are defined by the American Psychiatric Association (2017) as “illnesses in which the people experience severe disturbances in their eating behaviors and related thoughts, and emotions” (para. 1).

Coercive and Compulsive Treatment

Szmukler and Appelbaum (2008) define coercion/compulsion as a continuum of “treatment pressures to cover the range of interventions aimed at inducing reluctant patients to accept treatment,” from persuasive arguments to compulsive or involuntary methods that are “backed up by force supported by legal statute” (p. 234–239). In the context of eating disorder treatment, these measures include variations in coercion, restriction, and involuntary methods. Coercion, in the context of this study, refers to more informal methods, and compulsion refers to legally regulated methods including involuntary treatment.

CHAPTER II: LITERATURE REVIEW

This chapter provides introductions to the primary variables of interest to this study and to the relevant information from existing literature and research outcomes to provide a basis for understanding of the core factors, evidence, and theories that informed this research. The chapter is organized into three parts: 1) stigma and the stigmatization of mental illness, 2) eating disorders, and 3) coercive/compulsory treatment methods.

Stigma and the Stigmatization of Mental Illness

Human beings are expedient appraisers of stimuli, which include the actions of other humans, in their environment (Griffith & Kohrt, 2016; Kurzban & Leary, 2001; Ricci & Dixon, 2015). These appraisals are generous in quantity, occurring thousands of times in the course of a day at speeds that are nearly undetectable, but are not always generous in quality (Griffith & Kohrt, 2016; Kurzban & Leary, 2001). In general, the accuracy of appraisals is sacrificed for speed in order to ensure survival, or the prioritization of safety and security, at the risk of over-amplification of a potential threat (Griffith & Kohrt, 2016; Kurzban & Leary, 2001). Put more simply, if there is a noise in the bushes it is safer to assume danger and flee, than to pause and reflect on harmless alternatives. This same equation for risk appraisal informs how psychology and sociology scholars conceptualize the origins of social stigma and its adaptive role in our lives as an expedient way to appraise and categorize others in our environment relative to our perceived needs and survival instincts (Griffith & Kohrt, 2016; Kurzban & Leary, 2001).

Theoretical Basis and Mechanisms of Stigma

Stigma is defined as the negative evaluation, devaluation, or illegitimacy of another person. Its etymological origins include the Greek, and later Latin, terms *stigma* or *stigmata*, which refer specifically to marks or brands on the skin that differentiated categories of people

based on attributes real or imagined (Kurzban & Leary, 2001). Stigma is divided into three components - cognitive, affective, and behavioral - that are believed to form the underlying mechanisms for stigmatization (Fox et al., 2017; Kurzban & Leary, 2001). Cognitively, stigma begins with the unconscious neurological communication processes we use to evaluate and categorize the constant bombardment of stimuli in our environment. These processes are associated with stereotypes which are the quick, automatic categorizations that we apply to others, often in an “us versus them” framework (Griffith & Kohrt, 2016; Kurzban & Leary, 2001). Affectively, our emotional state plays a moderating role, integrating the preceding cognitive signals and associations to determine the strength of our response to incoming information (Griffith & Kohrt, 2016). These affective outcomes are associated with prejudice or other attitudes that are tied to stereotypic beliefs (Griffith & Kohrt, 2016; Kurzban & Leary, 2001).

The combination of cognitive and affective processes can influence our behavior, including outcomes such as discrimination (Gaebel, Rössler, & Sartorius, 2017; Kurzban & Leary, 2001). As it applies to stigma toward individuals with eating disorders, an example might include the initial cognitive appraisal that an individual has an eating disorder, which can be associated with an accompanying stereotype that the individual is engaging in disordered behavior to get attention. That stereotype may then be associated with affective responses that include disgust or frustration, and in turn, lead to prejudices and perhaps discriminatory behavior such as avoidance of the individual with the disorder or trivialization of their healthcare needs (Crisp, 2005). This is a simplistic example of what is known to be a complicated process that has both adaptive and maladaptive functions in our world, as well as genuine consequences for individuals who experience stigmatization (Griffith & Kohrt, 2016).

In its simplicity, the previous example risks portraying a certainty of negative behavioral outcomes as a result of the cognitive and affective mechanisms of stigma. However, behaviors associated with stigma are not fixed and can be moderated by our perception of what is socially acceptable or unacceptable behavior (Griffith & Kohrt, 2016). We may inhibit behaviors that we know are undesirable based on our social norms, but because there are many unconscious components of stigma, our reactions may not be entirely under our control regardless of our awareness of social norms thanks in part to our evolutionary heritage (Griffith & Kohrt, 2016). From an evolutionary psychology perspective, stigma and its cognitive, affective, and behavioral components can play an adaptive or protective role by helping us identify potential threats, advance our competitive interests, and secure or protect resources essential for survival (Griffith & Kohrt, 2016). Most often this involves the inclusion or seclusion of others from our social packs or communities in a process conceptualized as in- or out-group appraisal, which is based on the perceived contextual “value” of that person (A. B. Fox et al., 2017; Griffith & Kohrt, 2016; Kurzban & Leary, 2001). One factor of how we determine an individual’s value, or their in- or out-group status, is in appraisal of their physical and psychological fitness, and this is where the presence or absence of illness, including mental illness, plays a central role (A. B. Fox et al., 2017; Griffith & Kohrt, 2016; Robinson, Turk, Jilka, & Cella, 2019).

Stigmatization of Illness and Disease

Throughout history, the presence of disease or illness has been synonymous with imposition of physical markings, including tattoos, burns, or scarring, which were the stigmata that first originated within Greek and Roman societies as a way of indicating that an individual was abnormal or otherwise devalued in society (Michaels, López, Rüscher, & Corrigan, 2017). These demarcations also served as indications to others of what was expected in terms of their

behavior toward the stigmatized individual, which primarily included avoidance for fear of social contagion or being associated with the stigmatized individual and thus stigmatized (Michaels et al., 2017). Variations in stigmatization across cultures, context, and history provide insight into the nature of stigma as a social construct that reflects the thinking and sociocultural values of that period in time (Michaels et al., 2017). For example, in some periods of history, certain mental illnesses were glorified within artist communities for their purported value toward artistic expression. These individuals were celebrated, rather than stigmatized, thanks in part to the financial and social support of upper-class patrons (Michaels et al., 2017).

Research on the stigmatization of illness has traditionally focused on stigma associated with illnesses such as diabetes, Human Immunodeficiency Virus (HIV), obesity, or other physiological health conditions (Browne, Ventura, Mosely, & Speight, 2013; Phelan et al., 2015; Schabert, Browne, Mosely, & Speight, 2013; Thomas, McLeod, Jones, & Abbott, 2015; Turan et al., 2017). Conceptually, these illnesses are sometimes more readily stigmatized because of the visible features of either the condition itself, such as body size in the case of obesity, or the visible behavior or tools necessary to manage the condition, such as the behavior or tools necessary for monitoring insulin levels (Browne et al., 2013; Miller et al., 2013; Phelan et al., 2015). Research on stigma toward physiological conditions led to more contemporary explorations of the stigmatization of other conditions, including mental illness (Charles & Bentley, 2018; Chiles, Stefanovics, & Rosenheck, 2017; Link et al., 2017; Major et al., 2017; Robinson et al., 2019; Sickel, Seacat, & Nabors, 2019).

Stigmatization of Mental Illness

Contemporary conceptualizations of stigma, combined with prevalence of stigmatization associated with mental illness, led to a distinct categorization of Mental Illness Stigma (MIS),

which includes the perspectives and experiences of those who have or have had a mental illness, and the perspectives and experiences of those who stigmatize individuals with mental illness (Fox et al., 2017). Provider stigma is one example of a sub-type of MIS, which attends to the potentially unique interactions between stigmatizers and the stigmatized when the stigmatizer is a healthcare service provider (Charles & Bentley, 2018; Lien, Lin, Tsai, Lien, & Wu, 2019).

Variability in stigmatization of mental illness by mental illness type and features.

Research outcomes related to MIS suggest that there is variability in the severity and features of stigmatization associated with different types of mental illness (Ebnetter & Latner, 2013; Feldman & Crandall, 2007; Sandhu et al., 2019; Stuart et al., 2018; Varnado-Sullivan, Parker, & Rohner, 2019). Three of the most common factors associated with increased stigmatization of mental illness include perceived rarity of the illness, perceived dangerousness, and perceived responsibility of the afflicted individual in terms of perception of their role in the onset or maintenance of the illness (Cassone, Rieger, & Crisp, 2019; Ebnetter & Latner, 2013; Feldman & Crandall, 2007; Gaebel & Zäske, 2011).

Among mental illness classifications, schizophrenia and drug or alcohol addiction are most often correlated with perceived dangerousness, while eating disorders and addictions are correlated to highest prevalence of perceived blame and personal responsibility, or perceived trivialness of their illness (Angermeyer et al., 2006; Cassone et al., 2019; Crisafulli, Von Holle, & Bulik, 2008; Crisp, 2005; Ebnetter & Latner, 2013; Gallagher et al., 2019; Yan, Rieger, & Shou, 2018). Comparisons of attitudes toward individuals with eating disorders and other mental illnesses such as major depressive disorder found that individuals with eating disorders were blamed more for their condition (Ebnetter & Latner, 2013; McArdle et al., 2016; Roehrig & McLean, 2010; Varnado-Sullivan et al., 2019). Among types of eating disorders, binge eating

disorder is associated with the highest prevalence for blame compared to anorexia nervosa and bulimia nervosa, while anorexia and bulimia were associated with the highest perceptions of impairment compared to binge eating disorder, but less perceived impairment compared to major depressive disorder (Ebnetter & Latner, 2013).

Findings from research comparing attitudes toward other mental illnesses and eating disorders show that in addition to being blamed for their illness, individuals with eating disorders are also perceived, by lay persons and healthcare providers, as more likely to be using their illness to gain attention and that they could choose to end their illness, or stop their illness-associated behavior at any time (Cassone et al., 2019; Crisp, 2005; Roehrig & McLean, 2010; Stewart, Keel, & Schiavo, 2006; Zwickert & Rieger, 2013). Also documented is the potential for others to hold attitudes that suggest that having an eating disorder is associated with positive or admirable benefits, depending on the cultural or temporal context, which may lead to a desire for others to engage in disordered eating behavior (Crisp, 2005; Makowski, Mnich, Angermeyer, Lowe, & von dem Knesebeck, 2015; Roehrig & McLean, 2010; Stewart et al., 2006; Varnado-Sullivan et al., 2019).

Conditions that are associated with the increased perception that the afflicted individual is in control of or otherwise responsible for their condition, defined as volitional stigma, are also correlated to increased frequency and severity of stigmatization overall compared to other types of illness (Bannatyne & Stapleton, 2017; Gaebel et al., 2016). Eating disorders are also associated with another type of stigmatization called offset responsibility, which is the perception of how capable or incapable an individual is to aid in their own recovery (Gaebel et al., 2016). Together, these two patterns of stigmatization suggest a double standard, whereby the individual is stigmatized for being responsible for the onset of their condition and at the same

time stigmatized for the perception that failure to recover represents a lack of willpower, or a failing in character on their part—that the person could recover if they only chose to.

The perception that an individual is willfully making perceived unhealthy choices, is otherwise responsible for their unwanted condition, or is incapable of making decisions in their own best interests tends to increase paternalistic attitudes and behavior among treatment providers (Kendall & Hugman, 2016; Martens, 2015; Medeiros et al., 2014; Verbeke et al., 2019). The aim of paternalistic approaches is generally well-intended but can also be focused on achieving arguably subjective goals relative to the normative standards of health, wellbeing, or the best interest of the individual or society at the time (Martens, 2015). While arguments for the use of paternalistic approaches, particularly those centered on preservation of life, are not necessarily invalid, it is worth exploring and weighing the potential impacts of paternalism as it relates to the treatment of individuals with eating disorders (Kendall & Hugman, 2016; Medeiros et al., 2014; Verbeke et al., 2019).

Impacts of Stigmatization on Individual Treatment, Wellbeing, and Health

Anticipated or experienced stigmatization, from lay persons or healthcare providers, has adverse consequences for individuals with mental illness (Link et al., 2017; Sickel et al., 2019; Stuart et al., 2018). Anticipation of being stigmatized is strongly correlated with reduced treatment-seeking among individuals with mental illness (Corrigan, 2004; Gaebel et al., 2016; Stuart et al., 2018). Those with mental illness are afraid of the potential for treatment-seeking to “out” them as being mentally ill, thus putting them at risk for being stigmatized by family, friends, the general public, and healthcare providers (Fox et al., 2017; Link et al., 2017).

In a study of over 19,000 individuals, 39 percent of participants believed that seeking treatment for mental illness would result in a loss of friends or social supports, and 49 percent

believed that seeking treatment for mental illness would result in reduced access to resources, including employment and housing opportunities (“Stigma in Global Context - Mental Health Study”, 2013). Beyond anticipation of being stigmatized, experiences of stigmatization during treatment for mental illness is associated with increased relapse, treatment refusal or non-compliance, premature termination of treatment, increased symptom severity and subjective distress, and prolonged course of illness (Bayer, 2008; Cassone et al., 2019; Charles, 2013; Overton & Medina, 2008; Sickel et al., 2019).

In addition to the effects on treatment, internalized, anticipated, and experienced stigma can impact the overall health and wellbeing of individuals with mental illness (Carney et al., 2019; Link et al., 2017). These impacts can manifest in myriad ways including chronic illness, sleep problems, relationship problems, occupational disruptions, and comorbid psychiatric conditions (Link et al., 2017). Adverse impacts on self-esteem and perceived self-efficacy, or on the perception that the individual is capable of managing or resolving challenges in their life, are additional adverse outcomes associated with internalized and experienced stigma that can adversely affect treatment outcomes and wellbeing (Bannatyne & Stapleton, 2016; Bayer, 2008; Easter, 2012; MacDonald, 2002; Sickel et al., 2019; Treasure, Crane, McKnight, Buchanan, & Wolfe, 2011).

Stigmatization of Mental Illness Among Healthcare Providers

Historically, much of the research associated with mental illness stigma focused on measuring the stigmatizing attitudes held by the general public (Bannatyne & Stapleton, 2016; Griffiths et al., 2016; Oexle & Corrigan, 2018; Robinson et al., 2019; Roehrig & McLean, 2010; Varnado-Sullivan et al., 2019). Robust evidence for stigmatizing beliefs within the general population led to a more recent interest in evaluating whether healthcare providers who work

with individuals with mental illness, and who are susceptible to the same mechanisms of stigma as the general population, may also hold these same attitudes (Cassone et al., 2019; Charles, 2015; McArdle et al., 2016; Mittal, Corrigan, Drummond, Porchia, & Sullivan, 2016). While it was initially hypothesized that healthcare providers would have an innate, altruistic immunity to stigmatizing attitudes, particularly toward those whom they serve directly, research suggests that they may be just as vulnerable to stigmatizing attitudes as the general population (Bannatyne & Stapleton, 2015, 2016; Cassone et al., 2019; Fleming & Szmukler, 1992; McNicholas et al., 2015; Mittal et al., 2016; Reas & Lynn, 2017).

Mental illness stigma among medical providers. Research shows that medical professionals with various levels of experience and professional statuses report stigmatizing beliefs about and toward individuals with mental illness, including those with eating disorders (Banas, Redfern, Wanjiku, Lazebnik, & Rome, 2013; Bannatyne & Stapleton, 2017; Charles, 2013; Mittal et al., 2016; Sandhu et al., 2019; Seah, Tham, Kamaruzaman, & Yobas, 2017). A 2018 study found that nurses working in hospitals or emergency departments reported increased frustration when they were working with individuals with eating disorders compared to individuals with physiological illnesses, such as cancer, because they perceived individuals with eating disorders to be more personally responsible for their condition and thus less deserving of medical attention (Yi Seah, Cong Tham, RYanie Kamaruzaman, & Yobas, 2018). Similar research on the attitudes of medical students found that 70 percent of medical students in their fourth year of client-facing clinical training endorsed feelings of resentment associated with treating eating disorders (Bannatyne & Stapleton, 2017). Other surveys of medical students found that the majority endorse stigmatizing attitudes toward individuals with eating disorders more than toward individuals with other mental illnesses, and also reported beliefs that

individuals with eating disorders are more personally responsible for their condition than other individuals with mental health illnesses, such as depression (Banas et al., 2013; Bannatyne & Stapleton, 2017; Gowers & Shore, 1999).

Stigmatizing attitudes toward mental illness, including eating disorders, are also identified among primary care physicians, and in some instances stigmatizing attitudes among physicians are significantly more severe than the stigmatizing attitudes reported by the general public (McArdle et al., 2016; McNicholas et al., 2015; Mittal et al., 2016). Research on the clinical implications of general healthcare providers' attitudes toward individuals with eating disorders is limited, but available research suggests that clinical decision-making across a variety of settings and training levels can be impacted (Gaebel & Zäske, 2011; Seah et al., 2017; Thompson-Brenner et al., 2012; Veillette et al., 2018; Yi Seah et al., 2018). Of particular interest are physicians' attitudes toward individuals with eating disorders in primary care settings, where eating disorders are most likely to be detected during routine health visits (Currin, Waller, & Schmidt, 2009; McNicholas et al., 2015). In these settings, physicians who report negative or stigmatizing attitudes toward individuals with eating disorders are more likely to delay referral to specialty treatment providers or to distance themselves from the individual via onward referrals without combined close follow-up (Allen & Dalton, 2011; Currin et al., 2009; McNicholas et al., 2015). While limited, research also suggests that physicians may be reluctant to assess for eating disorder symptoms because of negative attitudes related to eating disorders or eating disorder prognosis, or because of attitudes associated with trivialization of eating disorders based on volitional stigma (Bannatyne & Stapleton, 2017; Currin et al., 2009; Linville, Brown, & O'Neil, 2012).

Psychiatrists also endorse stigmatizing attitudes toward individuals with eating disorders, though at generally lower levels than those reported by other medical professionals, including physicians and nurses (Jones, Saeidi, & Morgan, 2013; Satir, Thompson-Brenner, Boisseau, & Crisafulli, 2009; Thompson-Brenner et al., 2012). However, when compared to psychologists, psychiatrists report higher negativity toward individuals with eating disorders and increased feelings of frustration regarding their work with individuals with eating disorders, which can negatively impact their interactions with clients and treatment planning (Thompson-Brenner et al., 2012).

Training for general medical providers and psychiatrists on the etiology, assessment, and treatment of eating disorders is admittedly limited (Allen & Dalton, 2011; Banas et al., 2013; Gurney & Halmi, 2001; Higgins & Cahn, 2018; Mahr et al., 2015; Seah et al., 2017; Sim et al., 2010). In one survey of medical training programs for psychiatrists, fewer than half offered any training rotations specific to eating disorders, with most training opportunities offered through child or adolescent rotations (Mahr et al., 2015). Surveys also suggest that the majority of general medical providers feel that they do not have adequate training or skills to assess or treat eating disorders (Anderson et al., 2017; Banas et al., 2013; Brownlow et al., 2015; Linville, Benton, O'Neil, & Sturm, 2010; Linville et al., 2012). This lack of training may contribute to negative attitudes toward individuals with eating disorders; however, there is conflicting evidence surrounding the impact of additional training and its effectiveness on reducing negative attitudes or stigma toward individuals with mental illness, including eating disorders (Bannatyne & Stapleton, 2015; Chiles et al., 2017, 2018; Doley et al., 2017; Varnado-Sullivan et al., 2019).

Mental illness stigma among mental health providers. Existing research suggests that mental health providers are no less immune to stigmatizing attitudes toward individuals with

mental illness than are the general public or other medical professionals, including physicians and nurses (Bannatyne & Stapleton, 2017; Fleming & Szmukler, 1992; Jones et al., 2013; McArdle et al., 2016; Thompson-Brenner et al., 2012; Veillette et al., 2018). A 2017 study of graduate-level medical and psychology students found that both groups held stigmatizing beliefs toward individuals with eating disorders, including perceptions that individuals with eating disorders were vain, responsible for their illness, and that the etiology of eating disorders was primarily sociocultural (influenced by media or celebrities) instead of biogenetic (Bannatyne & Stapleton, 2017). Stigmatizing attitudes toward individuals with mental illness have also been identified among various mental health provider classifications, including social workers, therapists, counselors, and psychologists (Schulze, 2007). Often, stigmatizing attitudes are reported even when the mental health provider has had direct contact with the target population (Anderson, Accurso, Kinasz, & Le Grange, 2017; Crisp, 2005; Stewart, Schiavo, Herzog, & Franko, 2008; Yu, Hildebrandt, & Lanzieri, 2015). This is counter to the theory that increased exposure to the stigmatized individual or condition can reduce negative attitudes, suggesting complex interactions of experience, exposure, and clinicians' attitudes (Bannatyne & Abel, 2015; Doley et al., 2017; Thompson-Brenner et al., 2012).

Eating Disorders

General Features and Classifications of Eating Disorders

Eating disorders are psychiatric illnesses that commonly include clinically significant presentations of dissatisfaction with body size or shape, concerns related to weight, and overvaluation of weight/shape, coupled with behavior associated with food or eating that can include binge eating, dietary restriction, or compensatory actions for the purpose of preventing weight gain (Culbert, Racine, & Klump, 2015; Steinhausen, 2002). Eating disorder diagnostic

categories include Anorexia nervosa, Bulimia nervosa, Binge eating disorder, Avoidant-Restrictive Food Intake Disorder (ARFID), pica, Rumination disorder, Other Specified Eating or Feeding Disorder (OSFED), or Unspecified Feeding or Eating Disorder (UFED; Fichter & Quadflieg, 2016a; Lindvall Dahlgren, Wisting, & Rø, 2017; Sysko et al., 2015).

Classification of eating disorders. Anorexia is defined by core symptoms that are centered on dietary restriction, low-weight status, desire to lose weight, and over-evaluation of weight or shape (Culbert et al., 2015). Bulimia shares symptoms of body dissatisfaction and over-evaluation of weight or shape featured in anorexia, and also includes binge-eating behavior combined with compensatory strategies such as laxative abuse and vomiting to mitigate the unwanted effects of food intake, including weight gain or maintaining weight gain (Culbert et al., 2015). Binge eating disorder includes binge eating behavior without the accompanying compensatory actions featured in bulimia, and can also include body dissatisfaction, over-evaluation of weight or shape, weight concerns, and dietary restriction similar to the symptoms of anorexia (Culbert et al., 2015). Because of the of the potentially overlapping symptomology across anorexia, bulimia, and binge eating disorder, and the emerging understanding that disordered eating symptoms vary across cultures and populations, otherwise specified categories including Eating Disorder Not Otherwise Specified (EDNOS), or more recently OSFED and UFED, are prevalently used in comparison to distinct categories of eating disorders (Berg & Peterson, 2013; Hoek, 2016).

Avoidant-restrictive food intake disorder is a relatively new classification of eating disorder that is associated with restriction of food intake, but that lacks the body image distortion and weight preoccupation symptoms that are core features of anorexia and bulimia (Hay & Cho, 2013). Rumination disorder includes the repeated regurgitation of food outside of the context of

anorexia, bulimia, binge eating disorder, or ARFID (Lindvall Dahlgren et al., 2017). Pica is defined by culturally and developmentally inappropriate consumption of non-food items, also outside of the context of other eating disorder behavior (Lindvall Dahlgren et al., 2017).

Orthorexia is another newly proposed classification of eating disorder that has not yet been formally adopted as a diagnosis, but which includes distinct symptomology centered on a preoccupation with healthy eating and other wellness-associated compulsions that can adversely impact health and wellbeing (Nevin & Vartanian, 2017). Though these classifications of eating disorders have been newly introduced they provide essential support for the ongoing argument that the criteria for eating disorder diagnoses are too narrow, and that as a result, many variations in eating disorders go undetected and thus untreated (Couture & Penn, 2003; Dunn & Bratman, 2016; Fursland & Watson, 2014; Mitchison, Basten, Griffiths, & Murray, 2017; Schmidt et al., 2016).

Prevalence of Eating Disorders

Because of the diagnostic complexities and sociocultural factors and trends that influence the conceptualization and diagnosis of eating disorders, it is difficult for researchers to pinpoint the prevalence of eating disorders, and this is often reflected in the wide variance of eating disorder prevalence reported in the literature (Fursland & Watson, 2014; Galmiche, Déchelotte, Lambert, & Tivolacci, 2019; Mancuso et al., 2015). Current research suggests a range of 0.8 to 18.6 percent of lifetime prevalence for eating disorders among adult and adolescent populations worldwide (Galmiche et al., 2019; Hoek, 2016; Rosenvinge & Pettersen, 2014; Smink, van Hoeken, & Hoek, 2012; Westmoreland et al., 2015). Increased use of otherwise specified categories, such as EDNOS/OSFED, created specific challenges in estimating prevalence due to the lack of consistency in what are inherently subjective interpretations of symptomology and

severity compared to the narrower criteria for anorexia, bulimia, binge eating disorder, or ARFID (Galmiche et al., 2019; Rosenvinge & Pettersen, 2014; Smink et al., 2012). Congruent with this, Galmiche et al. (2019) also identified ranges of 3.6 to 36 percent of lifetime prevalence when variations in classifications of eating disorder presentations are accounted for.

Regardless, evidence indicates that within the existing diagnostic framework, eating disorders are relatively rare compared to other mental illnesses such as depression (Hoek, 2016; Smink et al., 2012; Striegel-Moore et al., 2009). It is also important to note, however, that eating disorders often go undiagnosed and are correlated with greater severity relative to the risk of medical complications and mortality compared to other psychiatric conditions (Arcelus et al., 2011; Fichter & Quadflieg, 2016; Hay, 2020; Smink et al., 2012).

Treatment Challenges

Eating disorders are intractable, complex illnesses (Davidson et al., 2019; Hay, 2020; Thompson-Brenner et al., 2012; Warren, Schafer, Crowley, & Olivardia, 2013, 2012; Westmoreland et al., 2015). This is attributed to high rates of treatment refusal, resistance, and relapse across the spectrum of eating disorders (Bohrer, Foye, & Jewell, 2020; Fichter & Quadflieg, 2016; Fichter, Quadflieg, Crosby, & Koch, 2017; Geppert, 2015; Hay, 2020; Túry et al., 2019). Overlapping medical complications frequently accompany the progression of these disorders, often resulting in adverse health consequences which further complicate treatment including chronic cardiac, gastrointestinal, and respiratory conditions, or even death (Fichter & Quadflieg, 2016; Hay, 2020; Westmoreland et al., 2015). These challenges are correlated with the general consensus that eating disorder recovery is a lengthy process accompanied by a poor to fair prognosis in terms of the expectation that an individual with an eating disorder can achieve full recovery – a term which has yet to be clearly defined (Bardone-Cone et al., 2010;

Slof-Op 't Landt, Dingemans, de la Torre Y Rivas, & van Furth, 2019; Tomba, Tecuta, Crocetti, Squarcio, & Tomei, 2019). These challenges are associated with high prevalence for feelings of frustration, hopelessness, and burnout among professionals who provide eating disorder treatment (Kaplan & Garfinkel, 1999; Thompson-Brenner et al., 2012; Warren et al., 2013, 2012; Yorke, Steinegger, & Toulany, 2018; Zugai et al., 2019; Zugai, Stein-Parbury, & Roche, 2018).

Given the complexities, evidence strongly supports a multidisciplinary approach to eating disorder treatment (Anderson et al., 2017; Hay, 2020; Westmoreland et al., 2015). Eating disorder treatment programs are often team-based and include primary care physicians, specialty medical providers, nurses, psychiatrists, psychologists, therapists, and dieticians (Anderson et al., 2017; Striegel Weissman & Rosselli, 2017; Westmoreland et al., 2015). While the involvement of these providers varies across different levels of care, each has a unique contribution to make in the context of assessment and treatment planning, as well as in implementation and monitoring of treatment outcomes across a variety of physiological and psychological domains (Westmoreland et al., 2015). It is because of this multidisciplinary approach to eating disorder treatment that the sample for this research study includes many of the provider roles listed above, which are detailed in the methodology section.

Mental Illness Stigma and Eating Disorders

Empirical evidence increasingly supports the role of biological and genetic processes in the etiology of eating disorder; yet despite this, the general public and many healthcare professionals endorse stigmatizing attitudes toward individuals with eating disorders (Bannatyne & Stapleton, 2015; Easter, 2012, 2013; Himmerich, Bentley, Kan, & Treasure, 2019; Kvaale, Gottdiener, & Haslam, 2013; Varnado-Sullivan et al., 2019). Most often these attitudes reflect perceptions and stereotypes that individuals with eating disorders are personally culpable for

their illness, that eating disorders are less severe or should be taken less seriously than other mental or physical illnesses, and that individuals with eating disorders are actively and willfully engaging in illness-associated behavior to gain attention (Cassone et al., 2019; Crisafulli et al., 2010; Ebnetter & Latner, 2013; Galbraith et al., 2019; Graham et al., 2020; Murakami, Essayli, & Latner, 2016; Puhl, Neumark-Sztainer, Austin, Luedicke, & King, 2012; Roehrig & McLean, 2010; Valenti et al., 2015).

Blame. Perceived personal responsibility for having an eating disorder, a concept known as volitional stigma, is the most common type of stigmatization associated with eating disorders (Bannatyne & Stapleton, 2016; Cassone et al., 2019; Crisafulli et al., 2010, 2008; Graham et al., 2020; McArdle et al., 2016; Roehrig & McLean, 2010). Eating disorders are associated with the highest rate of volitional stigma endorsed by the general population when compared to volitional stigma toward individuals with other mental illnesses, including substance abuse (Bannatyne & Stapleton, 2016). Endorsements of volitional stigma toward individuals with eating disorders are also found amongst healthcare professionals including physicians, psychiatrists, therapists, and psychologists whose roles are integral to the treatment of these complex disorders (Bannatyne & Abel, 2014; Bannatyne & Stapleton, 2017; Thompson-Brenner, Satir, Franko, & Herzog, 2012). A meta-analysis of treatment providers' affective responses documented feelings of frustration, hopelessness, and blame toward individuals with eating disorders (Thompson-Brenner et al., 2012). These attitudes were present despite the expected training and education pertaining to the biological, and other non-volitional, etiological factors associated with eating disorders these professionals are often given (Bannatyne & Stapleton, 2015, 2016; Crisafulli et al., 2008; Easter, 2012).

Tied to personal responsibility and stigmatization of individuals with eating disorders is the previously explored concept of offset responsibility. For individuals with eating disorders, the perception that they are to blame for their illness is often paired with the perception that they are less capable (due to perceived weakness or flaw in their character) of recovering from that illness, and that they are willfully engaging in the behavior associated with their condition (Crisafulli et al., 2008; Gaebel et al., 2016; Stewart et al., 2006). This perception of weakness or incapability is associated with negative attitudes toward treatment prognosis and increased paternalistic attitudes and behavior among healthcare professionals (Matusek, 2011; McNicholas et al., 2015; Pelto-Piri, Kjellin, Lindvall, & Engström, 2016).

Triviality. Laypersons and healthcare professionals alike report trivializing attitudes toward eating disorders in comparison to other psychiatric or medical conditions (Bannatyne & Stapleton, 2015, 2016; Crisp, 2005; Dimitropoulos et al., 2016; Griffiths, Mond, Murray, & Touyz, 2013; Holliday, Wall, Treasure, & Weinman, 2005; Robinson et al., 2019). These attitudes occur despite evidence of the potentially life-threatening severity of eating disorders, with anorexia specifically representing the highest mortality rate of all psychiatric conditions (Ali et al., 2017; Carney, Tait, Wakefield, Ingvarson, & Touyz, 2005; Douzenis & Michopoulos, 2015; Fichter et al., 2017; Galbraith et al., 2019; Mond & Arrighi, 2011; Westmoreland et al., 2017). In a survey of medical students, the majority reported feelings of resentment for having to provide services to individuals with eating disorders, and it was posited that this resentment was related to the perception that eating disorders are less worthy of medical attention than other conditions like cancer (Bannatyne & Stapleton, 2017). This and other studies identified that some healthcare professionals may view treating eating disorders as less prestigious than treating other conditions, further increasing the perceived triviality of these illnesses (Bannatyne &

Stapleton, 2017; Currin et al., 2009; Jones et al., 2013). Attitudes such as these are also associated with specific behavior toward individuals with eating disorders; including potentially damaging behavior like delaying treatment referrals due to perceived triviality, or punitive treatment methods due to the pairing of triviality and perceived attention-seeking of the individual with the eating disorder (Bannatyne & Stapleton, 2015; Ramjan, 2004; Ramjan & Gill, 2012).

Perhaps another indication of the chronic underestimation of the severity of eating disorders is the commonly held belief that certain eating disorder-associated outcomes (low body weight), behavior (exercise), or characteristics (higher willpower), are desirable or even enviable (Roehrig & McLean, 2010; Varnado-Sullivan et al., 2019). In Tierney's (2008) qualitative study of individuals in an inpatient eating disorder treatment program, one individual reported her opinion on the attitudes of the staff toward her condition

They couldn't seem to realize that I had a real problem. Some of them just thought I was dieting to excess, I suppose. I remember one of them asking if I could give her a bit of my illness so she could lose some weight before she went on holiday. I mean, how stupid is that? (p. 371)

Attention. From a causal attribution perspective, the attitude that individuals with eating disorders are willfully in control of the onset or maintenance of their illness is also tied to assumptions about what might motivate these willful behavior (Bannatyne & Stapleton, 2016; Dimitropoulos et al., 2016). Attention-seeking is one such assumption that is endorsed among general population and healthcare professional (Bannatyne & Stapleton, 2016; Crisafulli et al., 2010; A. B. Fox et al., 2017; McArdle et al., 2016; Roehrig & McLean, 2010). In a survey of athletic service providers, the majority reported the perception that individuals with eating

disorders were personally responsible for their condition, and were more likely to be using their illness to gain attention than an individual with depression (McArdle et al., 2016). Per Tierney (2008) a participant in inpatient treatment for an eating disorder stated “They just think you’re being silly or seeking attention” (p. 371) regarding interactions with treatment staff.

Coercive and Compulsive Treatment Methods

Defining Coercion and Compulsion in the Treatment of Mental Illness

Though coercion and compulsion are often referenced as interdependent behavior within the field of mental health, there is general consensus that the two are primarily delineated based on whether they entail the type of formal coercion/compulsion that is legally regulated, such as involuntary treatment, or informal coercion that exists in the grey areas between ethical guidelines, clinical judgment, and formal regulation such as adjusting privileges in treatment based on compliance (Jaeger, Ketteler, Rabenschlag, & Theodoridou, 2014; Martin & Gurbai, 2019).

Coercive treatment methods have been defined across a continuum that is demarcated into four corresponding domains: persuasion, interpersonal leverage, inducement, and threat (Hiday, Swartz, Swanson, Borum, & Wagner, 2002; Jaeger et al., 2014; Martin & Gurbai, 2019; Szmukler & Appelbaum, 2008; Valenti et al., 2015). Coercive treatment approaches include an escalating continuum of methods (Burns et al., 2011; Carney et al., 2016; Kendall, 2014; Matusek, 2011; Medeiros et al., 2014). Ranging from logical or emotional appeals and promise of rewards, to revoking or restricting privileges such as access to phone or email or fresh air breaks, to threatening termination of treatment or involuntary treatment or hospitalization (Elzakkars, Danner, Hoek, Schmidt, & van Elburg, 2014; Hiday et al., 2002; Ramjan & Gill, 2012; Szmukler & Appelbaum, 2008). Compulsive measures are perhaps more easily defined

and are centered on treating an individual against their expressed wishes through the use of involuntary hospitalization and forced medication adherence (Elzakkers et al., 2014; Martin & Gurbai, 2019; Szmukler & Appelbaum, 2008; Szmukler, 2008; Trachsel, Wild, Biller-Andorno, & Kronen, 2015).

Attitudes of Treatment Providers Toward Use of Coercion and Compulsion

In a sample of 248 treatment providers including psychiatrists, social workers, and psychologists in ten countries, the majority of participants reported generally favorable attitudes toward the necessity or efficacy of coercion in the treatment of mental illness (Valenti et al., 2015). Those same participants also reported differences between the amount of coercion they felt was acceptable in mental health treatment and their own use of coercive methods in practice, often reporting that coercion should be used minimally, while using it more liberally (Valenti et al., 2015). Several studies also document the disagreement among healthcare providers on whether patient autonomy or the expertise and authority of the clinician should be prioritized in the treatment of eating disorders or other psychiatric conditions (Hsieh, Wu, Chou, & Molodynski, 2017; Jaeger et al., 2014; Valenti et al., 2015). Per Valenti et al. (2015) one participant stated: “Where does the free will of a psychiatric patient begin and where does it end? Can we really say ‘You should do this’?” (p. 1304); while another responded,

Mental disorders in some ways affect capacity and judgment of the person him or herself and, therefore it is almost necessary that there is another person that in some way makes a more or less coercive decision toward a goal that is really, anyway, in the best interests (p. 1304)

Use of Compulsive and Coercive Measures in Eating Disorder Treatment

Compulsive methods in eating disorder treatment most often refer to involuntary nasogastric tube feeding and hospitalization against the individual's wishes in an attempt to improve or preserve their physical health or prevent death (Carney et al., 2019; Draper, 2000, 2003; Giordano, 2003; Mausek & Wright, 2010; Westmoreland et al., 2017, 2015). Estimates suggest that over one-third of individuals in treatment for an eating disorder will experience at least one episode of involuntary treatment, usually in the form of hospitalization (Clausen & Jones, 2014; Thiels, 2008). These purely compulsive methods occur less frequently than informal or more subtle coercive treatment measures, and although coercive measures are difficult to measure due to subjective perceptions, they have been documented by both clinicians and patients as pervasive, everyday components in the treatment of eating disorders across multiple settings and levels of care (Burns et al., 2011; Dobrzyńska, Frydecka, & Kiejna, 2006; Mausek, 2011; Ramjan & Gill, 2012; Szmukler & Appelbaum, 2008; Túry et al., 2019).

Coercion in the treatment of eating disorders most often includes forms of persuasion, leverage, inducements, or threats which adversely impact the individual's perception of liberty or autonomy (Carney, Tait, & Touyz, 2007; Clausen & Jones, 2014; Guarda et al., 2007; Mausek, 2011; Ramjan & Gill, 2012; Túry et al., 2019). Some commonly accepted aspects of eating disorder treatment are argued as innately and necessarily coercive or restrictive, including visual monitoring of meals and bathroom breaks or forcing patients to remove all clothing to ensure accurate weight measurement (Carney et al., 2007; Mausek, 2011; Ramjan & Gill, 2012).

Other methods are perhaps less easily interpreted. Compelling vegetarian or vegan patients to eat meat, forcing patients to eat foods that they generally do not enjoy eating, contingently allowing phone calls to friends or family, leveraging fresh air breaks or outings to

increase compliance in various aspects of treatment are some examples that have been documented in previous research (Carney et al., 2007; Matussek, 2011; Medeiros et al., 2014; Ramjan, 2004; Ramjan & Gill, 2012). Other methods might include prescribing medications for off-label uses, particularly weight gain, while withholding this information and the primary intent of the medication from the patient (Carney et al., 2007; Matussek, 2011; Ramjan & Gill, 2012). These treatment approaches can often be confusing to individuals in treatment or perceived as unnecessarily punitive (Bannatyne & Stapleton, 2016). In one qualitative study (Matussek, 2011) of coercion/compulsion in eating disorder treatment, a participant described her experience of coercion:

You weren't allowed to do laundry (laughs). So you just had to have dirty clothes. Um you weren't allowed to make phone calls to your family or friends. You were totally cut off. So and I don't know. It just, it seemed like there wasn't a bottom to getting demoted levels. You know, they just kept coming up with more stuff, more punishment" (p. 23)

In another study, individuals in treatment for eating disorders described the treatment setting and culture as a "prison," (p. 32) where passes for activities outside of treatment were provided or restricted based on weight gain (Ramjan & Gill, 2012). Figure 1 (See Appendix A) provides a list of common coercive, restrictive, or disciplinary methods that have been previously identified in research related to the treatment of eating disorders.

Outcomes of Coercive/Compulsive Methods in the Treatment of Eating Disorders

There are myriad moral, ethical, legal, and clinical arguments for and against the use of compulsive and coercive treatment measures in mental health settings generally and in the treatment of eating disorders specifically (Carney et al., 2008, 2019; Douzenis & Michopoulos, 2015; Túry et al., 2019). Arguments and findings surrounding the efficacy of

compulsive/coercive treatments have been previously explored in psychological, medical, and legal research with mixed results and no clear consensus on the appropriateness or inappropriateness of their use (Carney et al., 2019; Túry et al., 2019; Williams, Dobney, & Geller, 2010). Carney et al. (2019) assert that involuntary methods in eating disorder treatment are associated with negative effects, potentially across the lifespan of the individual, including lower quality of life and increased risk for relapse.

Some studies assert that coercive/compulsive measures negatively impact an individual's autonomy and perceived self-efficacy (Carney et al., 2019; Ramjan & Gill, 2012; Treasure et al., 2011). Additionally, interventions that support autonomy, self-efficacy, and individual empowerment can be more efficacious in reducing symptom severity, while concurrently protecting or preserving the rights of the patient (Ramjan & Gill, 2012; Treasure et al., 2011). Use of coercion in the treatment of eating disorders can also adversely impact the working alliance between the individual and their treatment provider; a critical factor in successful treatment outcomes across a wide range of mental illnesses, including eating disorders (Ramjan & Fogarty, 2019; Sheehan & Burns, 2014; Wampold, 2015).

Other findings support the potential benefits of coercive/compulsive treatment measures for eating disorders (Clausen & Jones, 2014; Watson, Bowers, & Andersen, 2000; Westmoreland et al., 2017). The majority of arguments for the use of coercion and compulsion are centered on addressing the life-threatening medical complications that are often associated with eating disorders, which, in many cases, can force clinicians into an ethical dilemma between preserving an individual's rights or their life (Carney et al., 2019; Clausen & Jones, 2014; Holm, Brixen, Andries, Hørder, & Støving, 2012; Matusek, 2011; McKinney, 2015). Compounding this are the potential ethical and legal ramifications for treatment providers if they fail to intervene in a way

that the courts or regulatory organizations deem warranted (Holm et al., 2012; Ip, 2019; Martin & Gurbai, 2019; Thiels & Curtice, 2009). Additional arguments for coercion alone emphasize its potential to promote engagement and adherence in treatment, reducing relapse, and perhaps even reducing treatment time (Andersen, 2006; Dobrzyńska et al., 2006; Medeiros et al., 2014; Wynn, Myklebust, & Bratlid, 2009). In whole, the most prevalent theme for the support of coercion/compulsion in eating disorder treatment is that the ends will likely justify the means (Carney et al., 2007, 2019; McKinney, 2015; Westmoreland et al., 2017).

Individuals treated for eating disorders have also provided their perceptions of the outcomes associated with coercive/compulsive treatment, paradoxically describing both negative and positive associations (Douzenis & Michopoulos, 2015; Matussek, 2011; Piot et al., 2019). Most adverse consequences associated with coercive/compulsive treatment have been centered on treatment approaches that seemed unnecessary to the patient, such as not allowing them to make phone calls or to do laundry, or using arguably extreme measures of compliance (i.e., forcing them to lick salad dressing off of their plate in order for a meal to be considered completely eaten; Matussek, 2011; Tan, Stewart, Fitzpatrick, & Hope, 2010). These types of treatment methods are often associated with feelings of disempowerment, horror, violation, fear, irritation, hopelessness, helplessness, hostility, and resentment among the individuals who receive coercive/compulsive treatment (Bannatyne & Stapleton, 2016; Matussek, 2011). Conversely, these same individuals with eating disorders, and others who reflected on their experiences of coercive/compulsive treatment, also noted that some aspects of coercion/compulsion were helpful (Matussek, 2011; Tan, Hope, Stewart, & Fitzpatrick, 2003; Tan et al., 2010). Positive associations with coercion/compulsion were most often correlated to patients' reflections post-treatment, where insight into the severity of illness was increased and

aspects of coercion, including surveillance and safety measures, were retrospectively perceived as necessary and protective, particularly when they occurred in the context of preserving the individual's life (Matusek, 2011; Tan et al., 2003).

Justification for the Use of Coercion and Compulsion in Eating Disorder Treatment

Discussions of the application of coercive/compulsive methods in the treatment of mental illness has been fraught with allegations of abuse and exploitation (Campbell & Aulisio, 2012). Early abuses of psychiatric patients, including confinement and involuntary treatment, led to legal interventions to assert and protect the rights of mentally ill persons with the exception of when that person is deemed a danger to themselves or others (Campbell & Aulisio, 2012). However, because of the complex interactions of medical comorbidity and complicating treatment factors like poor insight and high rates of relapse and resistance associated with eating disorders, experts argue that coercion/compulsion is often justified (Matusek & Wright, 2010; Tan, Hope, Stewart & Fitzpatrick, 2003; Zugai, Stein-Parbury & Roche, 2017). These justifications are generally situated within an ethical, legal, and paternalistic framework that provides for prioritization of the perceived best interests of the patient over the potential risk of adverse consequences associated with reduced autonomy and, in some cases, fundamental human rights (Campbell & Aulisio, 2012; Carney, 2009; Kendall & Hugman, 2016; Mahler, Mielau, Heinz, & Wullschleger, 2019; Túry et al., 2019)

Ethical and legal arguments. Perhaps the only thing that experts in the field of eating disorders can unilaterally agree on is that the decision to utilize coercive/compulsive treatment presents an ethical dilemma where both risks and benefits are possible (Andersen, 2006; Carney et al., 2016; Clausen & Jones, 2014; Dobrzyńska et al., 2006; Draper, 2000, 2003; Geppert, 2015; Giordano, 2003; Matusek & Wright, 2010; McKinney, 2015; Treasure et al., 2011;

Westmoreland et al., 2017). One argument is that treatment providers have an ethical duty to provide the most benefit with the least adverse consequences; paradoxically, in the case of coercion/compulsion, they also have a duty to prevent harm (Bohon & McCurdy, 2014; Martin & Gurbai, 2019). To illustrate, life-preserving methods such as forced nasogastric tube feeding are beneficial to the client, and, preserving their rights and autonomy by abstaining from imposed involuntary treatment is also beneficial (Carney et al., 2019; Draper, 2000, 2003; Giordano, 2003; MacDonald, 2002; Túry et al., 2019). Additionally, the ethical principles of justice, respect for the rights and dignity of persons, the right to self-governance (autonomy), fidelity, duty to protect, and privacy are also complicating factors in the decisions related to the treatment of eating disorders (Bohon & McCurdy, 2014; MacDonald, 2002). These factors become increasingly salient in cases of chronic eating disorders where there is the potential risk of a dose-effect from years of coercive/compulsive treatment measures, weighed against the potential benefit and the uncertain hopefulness that this time, treatment will work (Anderson et al., 2017; MacDonald, 2002; Touyz & Hay, 2015; Wildes et al., 2016). Several researchers have argued that in these cases it is beneficial, if not ethically paramount, to consider and prioritize the overall quality of life of the individual (Carney et al., 2019).

Historically, when treating mental illness, treatment providers have often disagreed on best ethical practices (Martin & Gurbai, 2019). This topic is even more contentious when it comes to treating the spectrum of eating disorders (Carney et al., 2019; Elzakkers, Danner, Grisso, Hoek, & van Elburg, 2018a; Feiring & Ugstad, 2014; Ip, 2019; Kendall, 2014; Tan & Richards, 2015). Subsequently, it is perhaps no wonder that the courts, which are often the decision-makers in the most complex or contentious of involuntary treatment cases, are often just as conflicted as the treatment experts (Carney, 2009; Dobrzyńska et al., 2006; Elzakkers, Danner,

Grisso, Hoek, & van Elburg, 2018b; Feiring & Ugstad, 2014; Ip, 2019; Martin & Gurbai, 2019; Tan & Richards, 2015). Most often the courts are concerned solely with the legal definitions of whether an individual has the capacity and competence to refuse treatment (Elzakkars et al., 2018b; Giordano, 2010; Ip, 2019). Because of the ego-syntonic nature of eating disorders, which can make it difficult to ascertain the wishes of the individual absent the influence of the disorder, proving or disproving capacity and competence in most legal cases involving eating disorders is arduous and uncertain (Campbell & Aulisio, 2012).

Paternalism. Pelto-Piri et al. (2016) state that there are two common arguments used to support the use of coercion/compulsion in the treatment of mental illness that can be attributed to paternalistic attitudes among healthcare professionals. The first is the argument that coercion/compulsion is necessary to protect the welfare of the client because of the perception that they are incapable of taking responsibility for their own care (Pelto-Piri et al., 2016). The second argument is that healthcare professionals have an obligation to treat individuals who are making seemingly unreasonable decisions related to their health or wellbeing (Pelto-Piri et al., 2016).

Overall, research links coercion/compulsion in the treatment of mental illness to paternalistic attitudes across a variety of settings or contexts, including inpatient and outpatient settings, and within the regulatory bodies responsible for determining the legal criteria for involuntary treatment (Feiring & Ugstad, 2014; Kendall & Hugman, 2016; Seo et al., 2013a; Verbeke et al., 2019). In the treatment of eating disorders specifically, paternalism is perhaps best represented in the general consensus that, in the end, the client will be thankful for the intervention, however unwanted (Carney et al., 2008, 2007, 2019; Kendall, 2014; Kendall & Hugman, 2016; Medeiros et al., 2014). This justification can exacerbate overprotective or

paternalistic approaches to treatment (Carney et al., 2008; Geppert, 2015; Matusek, 2011; McKinney, 2015; Seo et al., 2013a; Treasure et al., 2011).

Stigma of Mental Illness and Attitudes Towards Coercion and Compulsion

Several studies of eating disorder perceptions in the general public have identified positive correlations between stigmatizing attitudes toward individuals with mental illness and favorable attitudes for the use of coercion/compulsion (Gaebel & Zäske, 2011). Fewer studies have focused on these same attitudes among healthcare providers, but those that have reported similar correlations (Gaebel & Zäske, 2011). More recent analysis of provider stigma suggests that interactions among healthcare professionals' stigmatizing attitudes, clinical decision-making, and associated treatment behavior exist and should be increasingly attended to within the industry (Charles & Bentley, 2018).

CHAPTER III: METHODOLOGY

Purpose of the Study, Research Questions, and Hypotheses

There were three objectives for this study. The first explored treatment providers' stigmatizing attitudes toward individuals with eating disorders. The second focused on coercive/compulsive treatment approaches in regard to treatment providers' attitudes toward and use of those methods. Lastly, this study explored the possible relationships or differences among these variables and variables associated with variations in treatment providers' exposure to eating disorders. Given the exploratory nature of the study, research questions one, two, and three are purely descriptive and do not have specific predictions. The research questions are as follows:

1. What are the reported attitudes of all treatment providers toward individuals with eating disorders?
2. What are the reported attitudes of all treatment providers toward the use of coercive/compulsive methods in the treatment of individuals with eating disorders?
3. Among treatment providers who provide services to individuals with eating disorders, how frequently do they utilize coercive/compulsive treatment methods?
4. Among all treatment providers, is the presence or absence of different types of exposure to eating disorders associated with differences in stigmatizing attitudes toward individuals with eating disorders?

H₁: Stigmatizing attitudes toward eating disorders will significantly differ based on the presence or absence of exposure type (has had an eating disorder, has a friend/family/roommate with an eating disorder, or working/training at a site that provides services to individuals with eating disorders).

5. Among treatment providers who provide services to individuals with eating disorders, what is the relationship between stigmatizing attitudes toward those individuals and their reported use of coercive/compulsive treatment methods?

H₁: Among treatment providers who provide services to individuals with eating disorders, there will be a significant association between stigmatizing attitudes toward individuals with eating disorders and frequency of use of coercive/compulsive treatment methods.

6. What is the relationship between all treatment providers' stigmatizing attitudes toward individuals with eating disorders and attitudes toward coercive/compulsive treatment?

H₁: There will be a significant association between stigmatizing attitudes toward individuals with eating disorders and attitudes toward the use of coercive/compulsive treatment methods.

7. Among treatment providers who do or do not provide services to individuals with eating disorders, is there a difference in their attitudes toward the use of coercive/compulsive treatment methods?

H₁: There will be a significant difference in attitudes toward the use of coercive/compulsive treatment methods between treatment providers who provide treatment to individuals with eating disorders and treatment providers who do not.

Summary of Study Design

This study utilized a quantitative, non-experimental, online survey methodology to explore the attitudes and behavior of treatment providers. Participants were self-selected for

engagement in the survey. Assignment to groups was based on responses to group-criteria items. Measures used for the collection of data included existing and self-authored quantifiable items or scales. Self-authored measures were developed based on best-practices in psychological research of self-reported attitudes and behavior, review of relevant literature pertaining to attitudes toward individuals with eating disorders and coercive/compulsive treatment, and face-validation from experts in the primary areas of interest. The measures used in the survey are discussed in greater detail subsequently.

Participant Criteria and Sampling Strategy

In order to represent the attitudes and behavior of the treatment providers who are most likely to make or influence treatment decisions concerning individuals with eating disorders, participants in several roles were recruited from healthcare provider populations including: psychiatrists (MD [Medical Doctor], DO [Doctor of Osteopathy]), general medical providers (MD, DO), nurses/advanced nurses (RN [Registered Nurse], LPN/LVN [Licensed Practical Nurse/Licensed Vocational Nurse], CNA [Certified Nursing Assistant]; NP/ARNP [Nurse Practitioner/ Advanced Registered Nurse Practitioner], etc.), marriage and family therapists (MFT), psychologists (PhD [Doctor of Philosophy], PsyD [Doctor of Psychology], EdD [Doctor of Education]), social workers (LCSW [Licensed Clinical Social Worker], LICSW [Licensed Independent Clinical Social Worker]), other state-recognized therapist/counseling/psychology licenses (LMHP [Licensed Mental Health Professional], LMHC [Licensed Mental Health Counselor] etc. (American Psychiatric Association, 2006; Mehler & Anderson, 2017). While dietitians and other providers contribute to multidisciplinary eating disorder treatment teams, for the sake of feasibility it was determined that this study would prioritize the treatment provider roles that have been most closely identified in the literature with the utilization of, or decisions

pertaining to, coercive or compulsive treatment approaches. Faculty and students of Antioch University Seattle were also excluded from the study due to their previous inclusion in the pilot study.

A combination of non-probability, self-selection, and snowball sampling strategies were utilized. These methods are commonly used in psychological research (Etikan, Abubakar Musa, & Sunusi Alkassim, 2016). An empirically based target sample was estimated using G*Power, a power analysis software (Faul, Erdfelder, Lang, & Buchner, 2007). Based on the variables in this study, the target population, and a review of the literature which suggested that we might expect a medium effect size, the power analysis yielded a target of $N = 184$ in order to achieve 95% power and using an alpha level of .05. Existing research on attitudes toward individuals with eating disorders using survey methods range from $N = 126$ to 171 which provides additional support for the target sample size. For research questions 3, 4, 5, and 7, which concern differences or relationships between groups, a group sample size was set at a minimum of 30 participants per group (Kar & Ramalingam, 2013; Kazdin, 2017).

Design of Data Collection Survey and Measures

The survey was designed utilizing a combination of existing measures including the Eating Disorder Stigma Scale (EDSS) and exposure to eating disorder items authored by Crisafulli et al. (2010, 2008). Self-authored scales or items were developed when existing measures were either unavailable or inadequate to address the constructs being measured. The survey consisted of Likert and slider scales for attitude and behavior measures, and open or fixed response-style demographic items, all of which are widely accepted for use in social science research (Sullivan & Artino, 2013; Willits, Theodori, & Luloff, 2016). Response anchors and scale formats were selected from existing and empirically validated options for use in survey

research to enhance validity related to assumption of equal distance between anchor points congruent with treating the scales as continuous measures (Artino, La Rochelle, Dezee, & Gehlbach, 2014; Bass, Cascio, & O'Connor, 1974; DeVellis, 2003; Ross, Clark, & Padgett, 2006).

An initial feasibility study was approved by the Antioch University Seattle Institutional Review Board and conducted to estimate survey completion time and to solicit qualitative feedback on the survey items and format. Using the data collected from the feasibility study, items were revised in an effort to reduce completion time to less than 20 minutes and to increase user-friendliness congruent with best-practices for survey design (Revilla & Ochoa, 2017). Additionally, recruitment materials were adjusted by removing eating disorder-specific language in response to qualitative feedback that indicated many prospective participants had self-disqualified because the recruitment language led to an assumption that eating disorder treatment experience was a required for participation.

Design of Demographic Questionnaire

Participants were asked to provide non-identifying demographic information including their age, gender, sexual orientation, education, license type/status, state of residence/licensure, years of clinical practice experience, primary practice setting, level of care at practice setting, and age(s) of populations that they most frequently work with. Of these 18 items, one item (“In the past two years have you treated anyone diagnosed with an eating disorder?”) was directly applicable to the purpose of this study and was used to determine group status of the treatment providers based on their provision, or not, of eating disorder treatment services relevant to research questions three and five.

Exposure to Eating Disorders

Exposure to eating disorders may affect stigmatizing attitudes/beliefs toward individuals with eating disorders (Crisafulli et al., 2010, 2008). Because of this, participants were asked to report their level of exposure per Crisafulli's (2008) 12-item measure of exposure to eating disorders across multiple domains ranging from observation of movie/television characters with eating disorders to a personal history of an eating disorder. In regard to the latter, while research is limited, available prevalence rates suggest that as many as 38 percent of eating disorder treatment providers may have had their own experience with having an eating disorder (Barbarich, 2002; Williams & Haverkamp, 2015). Treatment providers' responses to this measure were used to determine the independent variables (type of exposure to eating disorders) for research question four. For participants who answered any item on the questionnaire, checked responses were valued at "yes" and unchecked responses were valued at "no" for each exposure type.

Originally, three types of exposure (personal, professional, and combined personal/professional) were of interest. However, due to the small sample size ($n = <10$) of two of those exposure types (personal or professional exposure alone) the independent variables for exposure were instead based on three more specific and salient exposure types as supported by the literature review of the relationships between exposure types and attitudes: having had an eating disorder, having an interpersonal relationship with someone with an eating disorder, or occupational-related types of exposure to eating disorders (Banas et al., 2013; Bowlby, Anderson, Hall, & Willingham, 2012; Crisafulli et al., 2008; Gorman-Ezell, 2009).

Eating Disorder Stigma Scale

Stigmatizing attitudes toward individuals with eating disorders were measured using Crisafulli et al.'s (2010) Eating Disorder Stigma Scale (EDSS). The EDSS is a 20-item, five-point Likert-scale with response anchors ranging from 1 (strongly disagree) to 5 (strongly agree) with statements about individuals with eating disorders. The EDSS is designed to collect interval or continuous data at full and sub-scale levels, including measures of overall stigma, volitional stigma (blame), attention-seeking, weakness, and illness triviality that are frequently associated with attitudes toward individuals with eating disorders (Crisafulli et al., 2010). The EDSS is widely used in surveys of the general public and in graduate school and medical school student populations, with internal consistency ratings of full- and sub-scales ranging from $\alpha = .80$ to $.92$ (Bannatyne & Stapleton, 2017; Crisafulli et al., 2010, 2008). Analysis of internal consistency for the EDSS in this sample was congruent with excellent consistency ($\alpha = .91$). Analysis of reliability based on item deletion suggested that removal of item 17 would improve the consistency to $\alpha = .94$. However, to maintain the integrity of the full scale as originally authored this item was retained.

Development of Coercive/Compulsive Treatment Attitudes and Use Scales

Existing measures designed to assess attitudes toward coercion/compulsion in the treatment of psychiatric conditions are primarily focused on physical safety, such as fear of violence from a mentally ill person and psychiatric conditions that feature psychotic symptoms (Jaeger et al., 2014; Nytingnes, Ruud, & Rugkåsa, 2016; Wu, Tang, Lin, & Chang, 2012). Coercion/compulsion in the treatment of eating disorders is comparably distinctive and often used in response to a different array of behavior or perceived attitudes or characteristics of the individual with the eating disorder, such as treatment resistance/refusal or the perception of their

responsibility for the onset or maintenance of their eating disorder (Andersen, 2006; Carney et al., 2016; Dobrzyńska et al., 2006; Matusek, 2011).

Because of this, two scales (See Appendix B) were created to measure treatment providers' attitudes toward (Attitudes Scale) and their use of (Use Scale) coercive/compulsive approaches specifically in the treatment of eating disorders. Both scales were developed through a review of the existing literature on coercion/compulsion in psychiatric treatment generally and eating disorders specifically; through my own observations while working at a nationally recognized eating disorder treatment program; and through consultation with experts in areas of general psychology, eating disorder treatment, and research (Alem, Jacobsson, Lynöe, Kohn, & Kullgren, 2002; Dobrzyńska et al., 2006; Elzackers et al., 2014; Matusek, 2011; Szmukler & Appelbaum, 2008; Tan et al., 2003; Trachsel et al., 2015; Túry et al., 2019).

Each scale is comprised of ten items designed to measure the continuum of coercive to compulsive approaches common in eating disorder treatment. The Attitudes Scale was presented in a slider format with anchors at 0 (strongly disagree) to 100 (strongly agree) with the use of coercive/compulsive methods in eating disorder treatment. The Use Scale mirrored the Attitudes Scale with the exception of minor linguistic changes to reflect the treatment provider's own use of those same methods, and a Likert response format with five anchor points ranging from 1 (never) to 5 (always) and an alternative response of "Not applicable in my treatment setting."

Psychometric Properties of Attitudes Scale and Use Scale. Analysis of the reliability of the coercive/compulsive Attitudes Scale suggested that the removal of the first item ("Tell an individual that they are free to engage in or terminate treatment at any time") would increase alpha from $\alpha = .79$ to $.81$ and because the suggested removal of this item was also mirrored in the

reliability analysis for the Use Scale, it was removed. Analysis of the remaining nine items of the attitudes scale suggested good internal consistency ($\alpha = .81$).

For the coercive/compulsive Use Scale, “not applicable in my treatment setting” responses were automatically treated as missing data for reliability analyses. Thus, in order to best assess the reliability of the scale, missing value analysis was conducted to identify the highest frequency of not-applicable items so that a range of alpha could be assessed. Two items (nine and ten) were most frequently marked as not applicable and those items both pertained to involuntary treatment methods (e.g., hospitalization or NG tube feeding). As with the Attitudes Scale, reliability analysis suggested that removal of the first item would increase reliability and this item was subsequently removed. Following this, final reliability analysis was conducted on the revised nine-item scale and the scale without the two involuntary treatment items (nine and ten of the original ten-item scale) to present a more accurate picture of reliability across treatment providers in a variety of treatment settings. The reliability analysis outcomes of both the full and modified scale suggest acceptable to good internal consistency ($\alpha = .71$ to $.81$).

Procedure

Congruent with non-probability, self-selection sampling procedures, participants were recruited using a variety of applicable online recruitment methods including email or social media posts targeted to reach specific populations of treatment providers across the United States. Congruent with snowball sampling strategies, participants were also invited to share the recruitment message and survey link with others in their respective professional networks.

All recruitment methods included an invitation to participate in an anonymous, ten to fifteen minute online survey pertaining to treatment providers and clinical decision-making which is detailed in Appendix B. The eating disorder-related focus of this survey was not

disclosed, in order to reduce the possible interference of participation-avoidance associated with perceived socially-negative topics such as stigma in addition to mitigating potential self-selecting out of the survey due to lack of eating disorder treatment experience (Mckinney Jr. et al., 2015; Pascual-Leone, Singh, & Scoboria, 2010). Risks of this type of incomplete disclosure in research are centered on the inability to fully obtain informed consent from the participants due to lack of knowledge related to the full nature/intent of the research, which, in the context of this study, may be waived because the research involves no more than minimal potential risk to the participants (Mckinney Jr. et al., 2015; U.S. Department of Health and Human Services., n.d.).

Participation was incentivized by providing an option to enter a drawing for one of two fifty dollar Amazon.com, Inc. gift cards following the completion of the survey. Additional incentive was provided in the form of a two dollar donation to the National Eating Disorder Association (NEDA) for each completed survey with a maximum donation of five hundred dollars (250 participants). Permission was obtained by NEDA to provide donation information on the recruitment materials and recruitment materials also included NEDA's required exclusion language (See Appendix B).

Data Collection

Prior to data collection, the procedures and measures for this study were approved by the Antioch University Seattle IRB. Data was collected over the course of three months using the previously detailed recruitment methods. Potential participants accessed the survey via a web link which took them to the first page of the online survey and the informed consent document where they were asked to indicate their agreement to participate in the study using a required "Yes/No" response item. Participants who indicated their agreement to participate after reviewing the informed consent ($N = 340$; see Appendix B) were invited to continue the survey.

While the original intent of the survey item sequence included use of flip-logic and randomization of item sequence to mitigate potential priming or response bias, at the time of onset of data collection that functionality was unavailable and under technical revision by SurveyMonkey® (Survey Monkey, personal communication, February 10, 2019).

Summary of Data Analysis Methods

Data collected from the survey was analyzed using Statistical Package for Social Sciences (SPSS). Alpha was set at .05. Pairwise or listwise deletion were used to manage missing data in order to preserve power congruent with best practices (Peugh & Enders, 2004). Outliers for each variable were minimal and were left in the dataset because of the large sample size, exploratory nature of the study, and the use of non-parametric tests which are less sensitive to outliers (Cox, 2017; Kazdin, 2016). Because of the exploratory nature of this research, descriptive statistics, including frequency and central tendency, provided the primary methods for data analysis. Because of the distribution of the data, non-parametric tests were used for the majority of the hypotheses concerning correlations between variables. The specific assumptions of each test were considered and are detailed in the results section.

CHAPTER IV: RESULTS

Sample Composition

A total of 340 treatment providers accessed the survey and, of those, 317 met the screening criteria and completed the survey. Because participants were able to skip any of the survey items, the responses for each item ranged from $n = 198$ to 317. Response rates could not be measured because of the sampling method

Personal Demographics

As shown in Table 1 (See Appendix C), of the total sample ($N = 317$) 198 to 317 participants completed the individual demographic items. The majority of participants identified as female (60.9%), White (61.2%), heterosexual (78.9%), and ranged in age from 24 to 83 years old ($M = 45$). Treatment providers from 35 of 50 states within the U.S. participated in the study.

Professional Demographics

As shown in Table 2 (See Appendix C), participants' self-reported professional characteristics indicated that most were licensed as a treatment provider (82.6%). The most common licensure/role type was psychologist (48.5%) and all participants reported an average of 14.9 years of experience. In addition, 32.4% of the participants reported private practice as their primary setting, 37.6% reported providing services at a combined intensive outpatient (IOP)/partial hospitalization program (PHP) level of care, 20% reported providing services at all levels of care including inpatient/residential, and 1% indicated that they only provide inpatient/residential services. With regard to populations serviced, 32.1% indicated that they provide services to adults, 17.1% provide services to all ages, and 8.3% provide services to children and/or adolescents.

Summary Data and Descriptive Statistics

The three primary research variables in this study were a) stigma toward individuals with eating disorders, b) attitudes toward coercive/compulsive treatment, and c) use of coercive/compulsive treatment. As explored in the methodology, the psychometric properties of the scales used to collect the data for those three variables suggest that each measure demonstrated acceptable to good internal consistency ($\alpha = .71$ to $.91$). Following assessment of psychometric properties of the measures, visual inspection of the data including scatterplots in addition to review of statistics associated with skewness, kurtosis, and tests of normality were utilized in assessing distribution of the data. This combination of methods is widely utilized and supported in psychological research as it pertains to assessing for violation of assumptions of distribution and as a factor in the applicability of parametric or non-parametric tests (Garson, 2012; Ghasemi & Zahediasl, 2012; Nielsen et al., 2019).

Distribution statistics and tests of normality for each variable are detailed in Tables 3 and 4 (See Appendix C). As demonstrated, data collected from the eating EDSS and the Use Scale was not normally distributed and significantly negatively skewed. Further analysis of distribution of data at the relevant independent variable levels (exposure to eating disorders and providing eating disorder treatment) also showed negative skew and abnormal distribution.

Data collected from the Attitudes Scale was not significantly skewed and additional review of a scatterplot supported an assumption of normal distribution. Distribution of the data from the Attitudes Scale at the relevant independent variable level (providing eating disorder treatment) was also normally distributed. The appropriateness of each statistical test was determined based on the distribution of the data and the assumptions of each test which are detailed in the following section.

Question 1: Stigmatizing Attitudes Toward Individuals with Eating Disorders

The EDSS showed a mean of 1.4 ($SD = .39$, $N = 270$) on a scale of 1 (strongly disagree) to 5 (strongly agree) with stigmatizing statements about individuals with eating disorders, suggesting that treatment providers in this sample reported very low levels of stigma toward individuals with eating disorders.

Question 2: Attitudes Toward the Use of Coercive/Compulsive Treatment Methods

Analysis of participants' responses ($N = 254$) to a sliding scale of 0 (strongly disagree) to 100 (strongly agree) with the use of nine different types of coercive/compulsive treatment methods resulted in $M = 52.93$ ($SD = 18.51$), suggesting that treatment providers in this sample reported slightly favorable attitudes toward coercive/compulsive treatment approaches.

Question 3: Frequency of Use of Coercive/Compulsive Treatment Methods

Analysis of treatment providers' responses ($N = 190$) regarding frequency of their use of coercive/compulsive methods on a scale of 1 (never) to 5 (always), or an alternative response of "not applicable") resulted in $M = 2.25$ ($SD = .72$), suggesting that treatment providers in this sample reported moderately infrequent use of coercive/compulsive treatment approaches in their work with individuals with eating disorders.

Another way to look at frequency of use of coercive/compulsive treatment methods is in the frequency within response categories. Within the sample of those who responded, 29% to 69% of treatment providers reported "never" using coercive/compulsive treatment approaches when providing treatment to individuals with eating disorders. Further, 16% to 25% of treatment providers reported "rarely" or "sometimes" using coercive/compulsive treatment methods, and 4% to 19% reported "often" or "always" utilizing coercive/compulsive methods.

Question 4: Differences in Stigmatizing Attitudes by Type of Exposure

As detailed in the methods section, variations in types of exposure to eating disorders were determined by treatment providers' responses (yes or no) to the eating disorder exposure items. Stigmatizing attitudes (EDSS) were then compared between treatment providers who indicated that they had (yes) experienced the identified level of exposure and those that indicated that they had not (no) experienced that same type of exposure. Because the data from the EDSS was not normally distributed, and significantly negatively skewed, a non-parametric test was used. A Mann-Whitney U test was selected based on the following required assumptions for its use: presence of a continuous dependent variable (stigma), dichotomous independent variables (yes or no for exposure type), independence of observation (no participant belonged to more than one group), and similar shape of distribution of the data for each group (yes or no) based on visual inspection of bar graphs (Garson, 2012; Ghasemi & Zahediasl, 2012; Nielsen et al., 2019).

Exposure Type 1: Had an Eating Disorder

There was no statistically significant difference ($U = 4292.5$, $z = -.24$, $p = .809$) in the EDSS scores of treatment providers who responded yes to having had an eating disorder ($Mdn = 1.2$) and the EDSS scores of treatment providers who responded no to having had an eating disorder ($Mdn = 1.25$). The null hypothesis has been accepted and the alternative hypothesis has been rejected.

Exposure Type 2: Working in a Setting that Provides Services to Individuals with Eating Disorders

EDSS scores of treatment providers who reported working and/or training in a setting that provides services to individuals with eating disorders ($Mdn = 1.2$) were significantly lower ($U = 5327.00$, $z = -2.67$, $p = .008$) than the EDSS scores of treatment providers who reported not

working in a setting that provides eating disorder treatment ($Mdn = 1.3$). The null hypothesis has been rejected and the alternative hypothesis has been accepted.

Exposure Type 3: Having an Interpersonal Relationship with an Individual with an Eating Disorder

There was no statistically significant difference ($U = 6734.00, z = -.42, p = .673$) in the EDSS scores of treatment providers who reported yes to having a friend, family member, or living with a person with an eating disorder ($Mdn = 1.2$) and the EDSS scores of treatment providers who reported not having a friend, family member, or living with a person with an eating disorder ($Mdn = 1.25$). The null hypothesis has been accepted and the alternative hypothesis has been rejected.

Question 5: Relationship Between Stigmatizing Attitudes and Use of Coercive/Compulsive Treatment Methods

Data collected from the EDSS (ranging from 1 [strongly disagree] to 5 [strongly agree]) with stigmatizing statements about individuals with eating disorders and the Use Scale (ranging from 1 [never] to 5 [always], or “not applicable” for the use of coercive/compulsive treatment methods) reported by treatment providers who also reported providing eating disorder treatment (“yes” to item three) was used for this analysis.

Because the data for both of the variables was not normally distributed, a non-parametric test was utilized. A Spearman's rank-order correlation was selected based on the following required assumptions for its use: presence of two continuous variables (stigma and use of coercion/compulsion), the two variables are paired observations, and a monotonic relationship between the two variables based on visual inspection of a scatterplot (Garson, 2012; Ghasemi & Zahediasl, 2012; Nielsen et al., 2019). The results of this test suggest that there was no

statistically significant correlation ($r_s = -.039, p = .597$) between EDSS scores and frequency of use of coercive/compulsive treatment methods. The null hypothesis has been accepted and the alternative hypothesis has been rejected.

Question 6: Relationship Between Stigmatizing Attitudes Toward Individuals with Eating Disorders and Attitudes Toward Coercive/Compulsive Treatment

Data collected from the EDSS and the Attitudes Scale (ranging from 0 [strongly agree] to 100 [strongly disagree] with coercive/compulsive methods) was used for this analysis.

Because the data from the EDSS was not normally distributed, a non-parametric test was utilized. A Spearman's rank-order correlation was selected based on the following required assumptions for its use: presence of two continuous variables (stigma and attitudes toward coercive/compulsive treatment), the two variables are paired observations, and a monotonic relationship between the two variables based on visual inspection of a scatterplot (Garson, 2012; Ghasemi & Zahediasl, 2012; Nielsen et al., 2019). The results of this test suggest that there was no statistically significant correlation ($r_s = -.062, p = .324$) between EDSS scores and attitudes toward use of coercive/compulsive treatment methods. The null hypothesis has been accepted and the alternative hypothesis has been rejected.

Question 7: Differences in Attitudes Toward Coercive/Compulsive Treatment

Methods Between Treatment Providers Who Treat or Do Not Treat Eating Disorders

Data collected from the Attitudes Scale and responses (yes or no) to the group-criteria item "In the past two years have you treated anyone diagnosed with an eating disorder?" were used for this analysis.

The data for the dependent variable was normally distributed, indicating the possible appropriateness of a parametric test (Garson, 2012; Ghasemi & Zahediasl, 2012; Nielsen et al.,

2019). However, because of the presence of outliers, though minimal, a non-parametric test was used due to its decreased sensitivity to outliers via the use of rank-order (Garson, 2012; Ghasemi & Zahediasl, 2012; Nielsen et al., 2019). A Mann-Whitney U test was selected based on the following required assumptions for its use: presence of a continuous dependent variable (use of coercive/compulsive treatment), dichotomous independent variables (yes/no to providing eating disorder treatment), independence of observation (no participant belonged to more than one independent variable group), and similar shape of distribution of the data for each group (yes/no) based on visual inspection of bar graphs (Garson, 2012; Nielsen et al., 2019).

Results of this analysis suggest that there was no statistically significant difference ($U = 57.030$, $z = -1.198$, $p = .231$) in the attitudes toward coercive/compulsive treatment of treatment providers who reported yes to providing eating disorder treatment ($Mdn = 54.83$) and the attitudes of treatment providers who reported not providing eating disorder treatment ($Mdn = 50.78$). The null hypothesis has been accepted and the alternative hypothesis has been rejected.

CHAPTER V: DISCUSSION

Research has become increasingly interested in assessing stigma toward individuals with mental illnesses among treatment provider populations (Angermeyer et al., 2006; Bannatyne & Stapleton, 2017; Chiles et al., 2018; Crisafulli et al., 2010; Gallagher et al., 2019; Oexle & Corrigan, 2018; Reas & Lynn, 2017; Veillette et al., 2018; Yan et al., 2018). Stigmatizing attitudes held by treatment providers are particularly intriguing because of the potential relationships between stigma and clinical decision making or the use of particular treatment approaches; including coercive and compulsive treatment (Gaebel & Zäske, 2011; Gallagher et al., 2019). Regardless, and despite the high prevalence of coercive and compulsive treatment methods reported by individuals with eating disorders, the variables and relationships explored in this study have been under researched (Gallagher et al., 2019).

As it pertains to individuals in treatment for eating disorders, clinical decision-making can often include treatment providers' support for, or use of, coercive/compulsive methods which have been extensively documented and debated within the field (Andersen, 2006; Carney et al., 2007, 2019; Douzenis & Michopoulos, 2015; Matussek, 2011; Matussek & Wright, 2010; Medeiros et al., 2014; Seo, Kim, & Rhee, 2013b; Thiels, 2008; Túry et al., 2019). As of yet, there is no clear consensus - clinically, ethically, morally, or legally - on whether or not coercive or compulsive methods should be used in eating disorder treatment (Carney et al., 2019; Ip, 2019; Mahler et al., 2019; Martin & Gurbai, 2019; Túry et al., 2019). Even within the United Nations, a body which frequently sets global standards for human rights, consensus for the use of coercion in the treatment of mental illness remains so elusive that experts have named it the "Geneva Impasse" (Martin & Gurbai, 2019, p. 1).

This lack of consensus is mirrored by my own opinions and perceptions of coercive/compulsive treatment based on observations of its use in eating disorder treatment. On one hand, when presented with the very real dangers of these disorders, it is easy to understand why clinicians often embrace their power as experts and authorities in clinical care to provide life-saving directives. It is also easy to understand how the day-to-day frustrations and associated burnout from working in intensive eating disorder treatment settings where clinicians often see patients return again and again could lead to negative attitudes and by association treatment methods that are explicitly or implicitly punitive (Davey, Arcelus, & Munir, 2014; Davidson et al., 2019; Medeiros et al., 2014; Thompson-Brenner et al., 2012).

There also appears to be validity in some coercive treatment approaches at least as they pertain to our current framework of providing eating disorder treatment. Having observed patients take extreme steps to make their weight measurement appear higher than it is, the argument for limiting clothing during weight-checks seems prudent to the extent that an accurate measurement is in fact crucial to ascertaining the medical stability and progress of the patient. My understanding of these attitudes and behavior does not, however, mean that I am wholly accepting of them because I have also witnessed their deleterious effects including many of those documented in the literature such as reducing self-efficacy, increasing feelings of shame, vulnerability, and low self-esteem. I have found myself agreeing with the “unfairness” of treatment methods expressed by both adolescent and adult treatment populations. I have heard treatment providers express stigmatizing attitudes toward individuals with eating disorders and on the worst of days I have also struggled with similar thoughts of my own despite profound respect and even affection for many of the individuals that I have been honored to work with.

It is for these reasons that I was compelled to undertake this exploratory research on stigmatizing attitudes held by treatment providers and coercive/compulsive treatment approaches. The aim of this discussion section is to provide conditionally drawn conclusions and connections based on prior published research and the findings of this study relative to the research questions and hypotheses. Limitations and recommendations for future research will also be discussed.

Questions 1, 2, and 3: Exploratory Aims

Stigmatizing Attitudes Toward Individuals with Eating Disorders

Participants in this sample reported encouragingly low levels of stigma toward individuals with eating disorders. This is true within the sample itself and in comparison to the range of moderately low to high levels of stigma reported among other research samples including, general population, undergraduate, medical, and psychology students or licensed healthcare professionals (Bannatyne & Abel, 2015; Bannatyne & Stapleton, 2017; Chiles et al., 2018; Crisafulli et al., 2010, 2008; Zwickert & Rieger, 2013). Levels of stigma in this sample are also comparatively low relative to the levels of stigma reported ($M = 2.13$ to 2.30) in studies that utilized the same measure of stigma (EDSS; Bannatyne & Abel, 2015; Crisafulli et al., 2010).

This finding is in direct contrast to two supported assertions in the literature. The first is that treatment providers may hold significantly negative attitudes toward individuals with eating disorders for a variety of reasons including frustration as a result of perceived treatment resistance, high prevalence of relapse or readmission to treatment, and time-to-recovery which most often takes several years (Davidson et al., 2019; Eddy et al., 2017; Gorman-Ezell, 2009; Medeiros et al., 2014; Thompson-Brenner et al., 2012). The second is that attitudes among

treatment professionals have in some cases been found to be even more negative or stigmatizing toward individuals with eating disorders than the attitudes of the general population where we might otherwise expect stigma to be higher due to the lack of information about or regular contact with individuals with eating disorders (Bannatyne & Stapleton, 2017; Chiles et al., 2018; Reas & Lynn, 2017). There are several possible explanations for the low levels of stigma reported in this sample.

Prior research indicates that exposure to individuals with, or information on, mental illnesses and eating disorders specifically, can be helpful in reducing stigmatizing attitudes among undergraduate students, members of the general population, and medical students (Bannatyne & Stapleton, 2015; Crisafulli et al., 2010; Thornicroft et al., 2016; Varnado-Sullivan et al., 2019; Zwickert & Rieger, 2013). It is thus possible that due to their education and experience, which likely includes exposure to eating disorders conceptually and/or clinically, providers in this sample had a more sophisticated level of knowledge, training, and possibly clinical experience related to eating disorders and that this positively impacted their attitudes. Studies also show that exposure to specific information on the neurobiological etiology of eating disorders can also reduce stigma, and providers in this sample may have had more exposure to this type of information, through their course of practice or continuing education, than the participants in previous studies (Bannatyne & Stapleton, 2015; Crisafulli et al., 2008; Zwickert & Rieger, 2013). This may also explain why stigma scores in this sample were lower than those found in other research samples which have primarily included undergraduate students or members of the general public.

Secondly, prior to this study, the EDSS had only been used to measure stigma among undergraduate or graduate level medical or psychology student populations and the intent of the

scale (measuring stigmatizing attitudes toward individuals with eating disorders) is largely face valid. This was the first time the EDSS was used to explore the attitudes of licensed, practicing treatment providers in addition to those still in training. Consequently, because of its transparency and simplistic language, it is possible that the EDSS lacked the sensitivity necessary to elicit what may be more nuanced expressions of stigma or negative attitudes among the highly educated and clinically sophisticated population of participants. Coupled with this, it is also possible that participants felt explicitly or implicitly defensive because of the nature, or recognizable intent of, the items and this may have encouraged the selection of more socially desirable responses. Endorsing explicitly negative attitudes toward individuals in a vulnerable population also stands in direct contrast to the personal and professional identities or desired characteristics of helping professionals, which may increase motivation for response biases that reflect more positive attitudes (Zugai et al., 2019; Zugai, Stein-Parbury, & Roche, 2018). Self-report and face valid measures like those utilized in this study are also insensitive to the measurement of implicit or subconscious biases which may also be present in the context of attitudes toward individuals with eating disorders, particularly within a treatment provider population that is expected to have positive attitudes toward vulnerable populations (Irving & Smith, 2020; Sandhu et al., 2019). Measures of implicit or automatic bias will be useful in continuing to explore treatment providers' attitudes toward individuals with eating disorders and are discussed later in this chapter.

Regardless of the cause, which cannot be ascertained based on the data collected, the low levels of stigma toward individuals with eating disorders reported by this research sample are tentatively promising. At best, they may reflect a positive shift in stigma toward individuals with eating disorders at the treatment provider level; and at worst, in the case of response bias or

measures that might more accurately capture these attitudes, we might anticipate that treatment providers' positive explicit attitudes may mitigate the impacts of any hidden or implicit negative attitudes (Crano & Prislin, 2011; Stier & Hinshaw, 2007). However, because these findings are in direct contrast to studies that have extensively documented individuals with eating disorders' experienced or perceived stigmatization, it is imperative that these findings represent not a definitive conclusion about the presence or absence of stigma, but rather the basis for further and more refined inquiry.

Attitudes Toward and Use of Coercive and Compulsive Methods in Eating Disorder Treatment

This study provided a novel exploration of treatment providers' attitudes toward the use of coercive/compulsive methods in eating disorder treatment in addition to their reported frequency of use of coercive/compulsive methods in their clinical work with individuals with eating disorders. Treatment providers in this sample reported moderately negative attitudes toward the use of coercive/compulsive methods in eating disorder treatment. In terms of frequency of use, the majority of participants reported never using coercive/compulsive treatment approaches (29% to 69%). However, the remaining participants reported rarely or sometimes (16% to 25%) using coercive/compulsive treatment methods or often or always (4% to 19%) utilizing coercive/compulsive methods in their treatment of eating disorders. This means that in general, treatment providers reported fairly infrequent use of coercive/compulsive methods.

While previous research has demonstrated that healthcare providers often report unfavorable attitudes toward coercive and compulsive treatment methods conceptually, the low frequency of use of coercive and compulsive treatment methods reported in this sample is

contradictory to the extensive evidence that coercive and compulsive treatment approaches are highly pervasive in eating disorder treatment (Carney et al., 2007; Clausen & Jones, 2014; Dobrzyńska et al., 2006; Holm et al., 2012; Matusek, 2011; Matusek & Wright, 2010; Medeiros et al., 2014; Thiels, 2008; Valenti et al., 2015; Watson et al., 2000). Valenti et al. (2015) documented this phenomenon in a qualitative study on coercive treatment approaches in psychiatry, which found that treatment providers exhibited a notable level of incongruence between their reported (unfavorable) attitudes toward coercion/compulsion and their prevalent use of coercion in their clinical practice, particularly when coercion was less explicit in nature (such as persuasion, leverage, or inducements versus involuntary hospitalization). In the context of this study, while the unfavorable attitudes toward coercive and compulsive treatment may have been expected, it is unexpected according to the literature that participants would not paradoxically endorse more frequent use of those treatment approaches.

It may be that similar to Valenti et al. (2015) the participants in this sample do not see their own behaviors mirrored in the items presented to measure coercive or compulsive treatment methods due to semantic or situational factors. It is also possible that having been asked to report on their attitudes, which were unfavorable, toward coercive and compulsive treatment methods prior to reporting their use of those methods, they were primed to under evaluate and underreport their own use of those methods (Hewson & Stewart, 2016). What is more likely, is that the use of coercive and compulsive treatment approaches are generally conditioned on contextual factors, such as perceived treatment resistance or medical necessity, and that the absence of these conditional qualifiers left many participants with a desire to respond with “it depends” which was not a presented response option (Mehler & Andersen, 2017; Matusek, 2011; Matusek & Wright, 2010; Medeiros et al., 2014).

Similar to the possibility of response bias to items in the EDSS, the transparency of the items used to measure attitudes toward and use of coercive/compulsive treatment may have elicited a desire toward more socially desirable response selection. In this case, response-bias may have encouraged responses that suggested less favorable attitudes toward coercion/compulsion and lower frequency of use of coercion/compulsion. Additionally, the abstract nature of the items may have also influenced response patterns. Use of coercion/compulsion in eating disorder treatment tends to be contextually specific and step-wise due to the variety of behavior and risks that can trigger the perceived need for use of those methods (Dobrzyńska et al., 2006; Holm et al., 2012; Matusek, 2011; Medeiros et al., 2014; Watson et al., 2000). For example, a treatment provider may not routinely consider the use of involuntary treatment unless it is in response to behavior(s) of the individual in treatment that indicate an elevated level of risk or medical necessity (Clausen & Jones, 2014; Manfred, 2001; Watson et al., 2000). There is also variation in the availability or utilization of different treatment approaches, coercion and compulsion included, across levels of care; for example, inpatient treatment providers have more access to methods of surveillance or NG tube feeding than outpatient providers (Carney et al., 2008; Matusek, 2011). It is thus reasonable to expect that providers in this sample may have had difficulty considering the use of coercion/compulsion presented apart from the contextual or treatment setting factors that typically precede these approaches. These findings point to several different opportunities for future research, explored later in this in this chapter, that may better assess the differences in attitudes and behaviors of treatment providers

Question 4: Differences in Stigmatizing Attitudes by Type of Exposure

A significant portion of the literature discusses the positive impacts of exposure to mental illness on individuals' attitudes toward mental illnesses (Couture & Penn, 2003; Doley et al., 2017; Holmes, Corrigan, Williams, Canar, & Kubiak, 1999; Thornicroft et al., 2016). In this study, treatment providers were asked to report the presence or absence of three types of exposure to eating disorders: a) working at a setting that provides eating disorder treatment; b) having a friend, family member, or living with an individual with an eating disorder (interpersonal exposure); or c) having had an eating disorder themselves. Of those exposure types, the only significant finding between the presence or absence of any exposure type was found for treatment providers who reported working at a site that provides eating disorder treatment. Those providers reported significantly lower levels of stigma toward individuals with eating disorders than the treatment providers who reported not working at a site that provides eating disorder treatment. No significant differences were found between the presence or absence of interpersonal contact or having had an eating disorder. While literature supports the role of contact or exposure in moderating attitudes toward mental illness, treatment providers in this sample reported such low levels of stigma overall that it is perhaps less surprising that the types of exposure were relatively uninfluential.

Based on the propensity for eating disorders to go unrecognized among some treatment provider populations, a phenomenon well documented among primary care providers for example, it may also be that some providers in this sample are unaware of their exposure to individuals with eating disorders and thus unable to accurately report it (Anderson et al., 2017; Banas et al., 2013; Johns, Taylor, John, & Tan, 2019; Sim et al., 2010). Some research suggests that there is a higher prevalence of stigma toward eating disorders among primary care provider

populations; which may play a role in lack of recognition of eating disorder presentations, or alternatively the trivialization of eating disorder symptoms in comparison to other medical conditions (Ali et al., 2017; Banas et al., 2013; Currin et al., 2009; McNicholas et al., 2015; Sim et al., 2010).

Research suggests that individuals who have, or have had, eating disorders experience self-stigma, or negative attitudes toward themselves because of their disorder, which can also generalize to others with eating disorders (Griffiths et al., 2015; Michaels et al., 2017; Sheehan, Nieweglowski, & Corrigan, 2017). Consequently, we might expect that treatment providers in this sample who reported having had an eating disorder might also report higher levels of stigma than those who have not had an eating disorder. This was not the case and has important implications considering the high prevalence of eating disorder service providers who have had an eating disorder themselves (Barbarich, 2002). This finding suggests that treatment providers who have had an eating disorder are no more prone to having stigmatizing attitudes toward individuals with eating disorders than others who have not had such intimate experience with the disorders.

Despite evidence suggesting that working with eating disorders can lead to frustration, burnout, and negative attitudes, the providers in our sample who indicated that they work in a setting that provides eating disorder treatment had lower levels of stigma toward individuals with eating disorders than those who did not. One possible explanation may be that the treatment providers in this sub-sample do not directly provide eating disorder treatment. Instead they may only work in proximity to others who do, such as generalist practitioners who work separately from an eating disorder treatment department located in their same agency/organization. This may insulate them from direct contact with any negative effects of providing eating disorder

treatment while still providing more exposure to eating disorders than their counterparts in other settings.

Question 5: Relationship Between Stigmatizing Attitudes and Use of Coercive and Compulsive Treatment Methods

Theorists posit that stigmatizing attitudes toward mental illness may promote the use of coercive/compulsive treatment approaches (Gaebel & Zäske, 2011; Link, Castille, & Stuber, 2008; Martens, 2015; Medeiros et al., 2014). This assertion was not supported by the results of this study, which found no significance in the relationship between treatment providers' frequency of use of coercive/compulsive treatment methods based on their attitudes toward individuals with eating disorders. Based on these findings, it would appear that there is not a relationship between treatment providers' attitudes toward individuals with eating disorders and the frequency of their use of coercive/compulsive methods. However, due to the low levels of reported stigma across the sample, it is not possible to definitively assess whether there is or is not a relationship between variations in stigma and variations in coercive or compulsive treatment. This is potentially encouraging for its implication that treatment providers' clinical decision-making may be absent the influence of their personal biases or feelings about the individuals they serve. Additionally, because the treatment providers in this sample were grouped based on the criterion that they provide eating disorder treatment, these findings may also suggest that within eating disorder treatment specifically attitudes toward the individuals in treatment are not correlated to types of treatment approaches.

Because of the limitations of the measures used to obtain the data for this analysis, these results should be taken with caution and are reflective of the need for more refined inquiry into these complex factors. As it relates to attitudes and their relationship to the use of

coercion/compulsion, paternalistic attitudes are thought to play a significant role in addition to stigma (Medeiros et al., 2014; Seo et al., 2013a). Context may also play a role in mitigating or promoting the relationship between these two factors to the extent that attitudes and use of coercion/compulsion may shift if treatment providers were provided with specific characteristics or behavior of individuals in eating disorder treatment (Reas & Lynn, 2017; Roehrig & McLean, 2010). Consequently, additional research that incorporates measures of paternalism and contextually nuanced measures of the applications of coercion/compulsion may more adequately address the potential relationships between these factors.

Question 6: Relationship Between Stigmatizing Attitudes Toward Individuals with Eating Disorders and Attitudes Toward Coercive/Compulsive Treatment

No significant findings were identified in the exploration of the relationship between participants' reported attitudes toward individuals with eating disorders and their attitudes toward the use of coercive/compulsive methods in eating disorder treatment. This is congruent with the findings that treatment providers' attitudes were also not significantly correlated to their use of coercion/compulsion. Similarly, it is encouraging that treatment providers' attitudes toward individuals in treatment and their attitudes toward treatment approaches in this context may not be linked. Measures associated with paternalism and context specific uses of coercion/compulsion were also absent from this analysis and may provide additional areas for inquiry in order to better understand how attitudes and treatment approaches may or may not interact.

Question 7: Differences in Attitudes Toward Coercive/Compulsive Treatment

Methods Between Treatment Providers Who Treat or Do Not Treat Eating Disorders

While evidence suggests that working with individuals with eating disorders can either have a positive impact (contact theory) or negative impact (frustration/burnout theory) on treatment providers' attitudes toward individuals with eating disorders, there were no significant differences in attitudes toward coercive/compulsive treatment methods among providers regardless of whether they reported providing treatment for eating disorders in the past two years (Thompson-Brenner et al., 2012; Warren et al., 2012; Yorke et al., 2018). This is also particularly encouraging; despite potential burnout and its associated effects, treatment providers in this study who provide eating disorder treatment are no more likely to favor coercive/compulsive treatment methods than treatment providers who do not provide eating disorder treatment. It is perhaps, however, discouraging that treatment providers who may have less experience treating eating disorders, and are thus less knowledgeable about the ongoing debate surrounding the risks and benefits of coercion/compulsion, are reporting similar attitudes toward these distinct treatment approaches (Carney et al., 2019; Túry et al., 2019). As with the preceding two research questions, paternalism and context are also applicable to future research on this topic as it relates to a potentially more refined assessment of attitudes toward coercive/compulsive treatment methods.

Strengths and Limitations

Methodological Limitations

There are several limitations of the present study that are worth noting. With regard to methodological construction, survey-based methodologies are useful and widely accepted in social science research primarily because of their ability to efficiently collect large amounts of

quantitative data from large samples of the target population (Hewson & Stewart, 2016), however, purely quantitative survey measures can be limited in their ability to measure sensitive, individually subjective, or contextually nuanced concepts (Creswell & Creswell, 2017). Because this study represents a novel inquiry, it is important that the results are interpreted within this context. Correlational analysis is another limitation linked to non-experimental methodologies, thereby limiting the predictive value of the findings.

Criteria for participation included many of the primary treatment provider roles who might be expected to work with or make decisions regarding the clinical treatment of individuals with eating disorders. The criteria, detailed earlier in the methods section, also excluded several treatment provider roles, such as dieticians, who are also typically represented on eating disorder treatment teams. The exclusion of these roles represents a limitation in regard to the generalizability of the findings to all roles of an eating disorder treatment team.

Using a self-selecting sampling strategy, while convenient and encouraging of participants' autonomy as it relates to ethics and research on human subjects, can lead to biases in the sample. This occurs because of the unmitigated influence of individuals' positive or negative attitudes toward participation in research in general or toward the content or purpose of the study specifically (Etikan et al., 2016). Impacts of self-selection bias can mean that the research sample is less representative of the population that the results are being applied to (Etikan et al., 2016). Thus, the findings of this study should be cautiously interpreted and generalized to the large treatment provider population.

Response-bias based on perceived social desirability is another limitation of this methodology particularly because of the high face validity and sensitive content of the measures (Brenner & DeLamater, 2016). Research shows that when presented with questions that have

response options that appear more or less socially desirable, respondents tailor their answers toward what we believe will be perceived as more socially desirable (Brenner & DeLamater, 2016). In the case of asking treatment providers to discuss their attitudes toward individuals with eating disorders, it is no less expected that they may have an explicit or implicit bias toward more socially favorable responses that measure their attitudes toward individuals with eating disorders, their attitudes toward coercive/compulsive treatment methods, and their use of coercive/compulsive methods. This limitation may mean that the results of the sample are biased, and again, this means that the results should be treated cautiously as an initial foray into exploration of these phenomena and not the end of what has already proven to be a complex discussion.

Another limitation concerns the data used to form the eating disorder treatment provider group based on a “yes” or “no” response to providing eating disorder treatment within the past two years. Review of the literature presented no existing data on the role of time in relation to its impact on stigmatizing attitudes toward individuals with mental illness generally, or eating disorders specifically (Kobau et al., 2012). Absent empirical evidence, the time range of this item was selected through consultation informed by subjective experience. This criterion is a limitation in that treatment providers who have not recently treated an individual with an eating disorder (e.g. one to two years ago) may have different attitudes toward individuals with eating disorders and eating disorder treatment approaches, than those who continuously treat eating disorders, or who have only recently begun treating eating disorders. The data also fails to distinguish between generalist providers who may have provided eating disorder treatment, and specialized eating disorder treatment providers. Similar to the variations in treatment setting and level of care, distinctions between specialist or generalist provider types may also mediate

awareness, access, or use of coercive or compulsive treatment specific to eating disorders. Consequently, this is another area for caution in regard to interpretation of the results as they pertain to treatment providers who were grouped according to these criteria.

Despite best efforts to recruit a diverse sample of treatment providers, the sample was largely homogenous in regard to race/ethnicity and gender. While this may be a limitation based on the absence of diverse perspectives in the sample, it is also representative of the expected level of diversity of race/ethnicity (predominantly White) and gender (predominantly female) among treatment providers the fields that were included in this study based on currently available data (Lin, Stamm, & Christidis, 2018; Salsberg et al., 2017; U.S. Census Bureau, 2015; Xierali & Nivet, 2018). Additional characteristics of the sample suggest that certain types of treatment providers including psychiatrists, general MDs, and nurses may have been underrepresented relative to the number of participants in other roles such as psychologists and social workers.

Analytic Limitations

Regarding analysis of the data, the use of correlational analysis, though appropriate for the variables of interest, is limiting in terms of helping us to understand which variables may be causing shifts in attitudes or behavior. This has important implications related to our inability to identify or create interventions to reduce stigma or better understand the influences and processes of coercive/compulsive treatment methods based on the findings of this study.

Finally, within the interminable debate regarding parametric versus non-parametric tests it has been argued that non-parametric tests are less powerful than their parametric counterparts which can lead to retention of the null hypotheses even if the alternative hypotheses is true (also known as a type II error, or a false negative). Alpha for this study was set at a standard of .05 suggesting that a limitation may be the resulting five percent chance of a type II error, however,

given the scope of this research the more conservative approach was taken which prioritized reducing the potential for a false-positive (type I error) over the potential for a false negative, particularly given the distribution of the data.

Methodological Strengths

One of the strengths of the study is that it had a relatively large sample size in terms of statistical strength. Additionally, the response rates among participants were relatively high given the level of difficulty anticipated in obtaining survey responses from treatment providers. The sample also included a range of treatment providers across a variety of settings, which helps to generalize the findings to treatment providers who are most likely to engage with individuals with eating disorders either tangentially or directly. While largely homogenous in terms of race/ethnicity and gender, the sample was also largely representative of the demographics that are currently reflected in the target population. By utilizing an online survey method, this study was also able to efficiently gather data on treatment providers' attitudes and behavior that served as a basis for exploratory analysis of the complex concepts of interest but also as a means of refining future research in this area.

Another primary strength of the present study is its novelty in evaluating stigma, attitudes, and behavior among treatment providers. This represents an understudied area in the field and is an important contribution to the extant research in eating disorder literature. Relatedly, this dissertation included the undertaking of measure development. As a part of the study, two scales were created to measure attitudes and use of coercive/compulsive treatment methods among providers. This represents a novel and valuable contribution to the field at large, given that these two measures did not exist prior to the undertaking of this study. These

measures, based on this study, demonstrate psychometric properties that show a promising outlook for adaptation in future research.

A unique incidental strength of the study is the opportunity it allowed for providers to reflect on and examine their attitudes and behavior relative to eating disorder treatment and those who experience eating disorders. By drawing attention to these unexamined biases, it may help to reduce stigma associated with eating disorders by increasing knowledge and visibility.

Areas for Future Research

There are many possibilities for further analysis of the complex variables of interest in this study and it is clear that future research is warranted due to the incongruencies between the results of treatment providers' self-reported behavior and attitudes in this study and the previously documented experiences of individuals with eating disorders. These inconsistencies are also present in prior research suggesting that we are continuing to miss important information that may help us understand this phenomenon and its effects on individuals with eating disorders. A primary avenue for additional research includes integration of measures of paternalism and context-specific or step-wise measures of attitudes and behavior associated with coercive/compulsive treatment.

Measuring stigmatizing attitudes is a complex endeavor in and of itself, and because of the potential impacts of treatment providers' attitudes toward the individuals that they treat, it is also imperative that additional research attend to the possible nuances in stigmatizing attitudes held by treatment providers versus the attitudes of students or the general public. Paternalism is one potential feature of the difference in attitudes held by treatment providers and the attitudes of the general public given the expert status of treatment providers and their ethical, moral, and legal obligations to provide efficacious treatment (Kendall & Hugman, 2016; Martens, 2015).

Treatment and symptom presentation, including medical instability, are two other contextual factors that may also mediate differences in attitudes toward individuals with eating disorders and coercive/compulsive treatment (Carney et al., 2007; Clausen & Jones, 2014; Dobrzyńska et al., 2006; Matusek, 2011). One way to address these nuances would be to develop measures that specifically evaluate treatment providers' stigmatizing and paternalistic attitudes related to the behaviors or characteristics commonly associated with individuals in eating disorder treatment including resistance, relapse, and refusal (Campbell & Aulisio, 2012; Eddy et al., 2017; Hay, 2020; Ramjan, 2004; Túry et al., 2019). Differentiation across treatment settings, levels of care and providers' levels of licensure or specialty versus generalist practice would also help to further assess factors that may mediate or moderate treatment providers' attitudes and coercive or compulsive clinical practices (McNicholas et al., 2015; Túry et al., 2019).

Integrating measurements of implicit attitudes would also be useful, particularly in mitigating the potential impact for socially desirable responses that can occur with self-report measures of explicit attitudes (Chapman et al., 2013; Irving & Smith, 2020; Miller et al., 2013; Murakami et al., 2016; Sandhu et al., 2019). Best-available research suggests that the Implicit Attitudes Test (IAT) has been most effective in assessing for implicit or automatic biases (Irving & Smith, 2020; Sheehan et al., 2017). IATs use timed association tasks which ask the participant to respond rapidly to paired presentations of target and opposite images (such as images of individuals of different or same ethnicity as the participant) and words that reflect positive or negative attributes (Sheehan et al., 2017). The use of IATs for accurately measuring implicit attitudes, or reliably predicting the behaviors associated with implicit attitudes, is still widely debated primarily because the current method for verifying the results of IATs involves cross-

comparison with self-report measures which have proven inconsistent and vulnerable to biased response patterns (Irving & Smith, 2020).

Gallagher et al. (2019) assert that specific attributes of the disorder or of the individual with the disorder, including presenting symptoms, sex, race, or ethnicity can play a role in both stigma toward the individual and the treatment they receive. Because this study measured stigma toward eating disorders generally and not specific types or presentations or severity of eating disorders, a study that explores those variations and the relationships to stigma and coercive/compulsive treatment would also be applicable.

The relationships between treatment providers' attitudes, behavior, ethical duties, and their clinical decision-making are complex and varied depending on individual and contextual, perhaps even temporal, factors. Combined with the knowledge that attitudes are often implicit, it would be beneficial to employ varied research methodologies as we continue to explore stigma and the coercive/compulsive treatment of eating disorders. Use of mixed-methods research approaches that include interviews of treatment providers across multiple settings and experience levels are likely to assist in illuminating nuances within these complex topics that were not identifiable within the limitations of this quantitative study. To better understand the inconsistencies in treatment providers' self-reports compared to the perceptions of individuals in treatment, a mixed-methods approach would be an invaluable next step toward enhancing our understanding of these variables in a real-world context while incorporating a broader range of applicable data types and sources.

In application, I propose that future research include several phases of mixed-methods studies that integrate and compare quantitative and qualitative measures of implicit and explicit treatment provider attitudes, behavioral observation in clinical environments, and self-reported

experiences and attitudes of all stakeholders including treatment providers, individuals with eating disorders and their families or other support figures who collectively have unique observations, perspectives, and motivations in regard to eating disorder treatment and outcomes (Anderson et al., 2017; Carney, 2014; Engman-Bredvik, Carballeira Suarez, Levi, & Nilsson, 2016; Fox & Whittlesea, 2017; Matusek, 2011; Striegel Weissman & Rosselli, 2017; van Langenberg et al., 2018).

Association tests for measuring implicit attitudes across the types of stigma of interest do not currently exist and given the specificity and potential contextual complexity of these constructs the development of such measures is likely aspirational. It is possible that qualitative approaches that combine behavioral observation and semi-structured interview methods may represent a more feasible approach for assessing implicit attitudes of treatment providers based on the content of their disclosures and verbal or non-verbal interactions with individuals with eating disorders and other treatment providers or stakeholders. For example, if the reported attitudes of treatment providers toward individuals with eating disorders are incongruent with observational analysis of those same treatment providers' interactions with individuals in treatment, it may be reasonable to conclude that implicit attitudes are present and additional analysis using previously identified indicators of stigma, such as language that is congruent with blame or triviality, may be used to further identify the types of stigma represented in those interactions.

Qualitative research using semi-structured interview methods have already proven useful in identifying the experiences and attitudes of eating disorder treatment providers in regard to job burnout and associated constructs, providing further support for their use in assessing other types of attitudes (Graham et al., 2020; Joel Sebastian Zugai et al., 2018). Behavioral observation in

clinical settings could provide a better understanding of the frequency and contextual factors associated with treatment providers' use of coercive and compulsive treatment methods. When combined with measures that assess the experienced or perceived stigmatization, coercion, or compulsion of individuals in treatment these approaches may more accurately assess the relationships between attitudes and behaviors, and the associated outcomes in regard to the experiences, progress, and recovery of those in treatment.

While studies such as this one and those that preceded it have brought much to the table in regard to increasing our awareness and refinement of these concepts, being able to provide data that more robustly and succinctly answers the questions concerning the relationships between treatment provider attitudes and treatment approaches represents a necessary next step toward actual interventions that can mitigate unwanted consequences for individuals in treatment and allow the field of eating disorder treatment to continue its advancement of treatment that is holistically respectful and efficacious for individuals and their communities.

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APPENDIX A**Supplemental Figures**

Figure 1. Coercive and restrictive treatment strategies, adapted from Matusek and Wright, 2010

Coercive and Restrictive Treatment Strategies and Disciplinary Practices

Involuntary hospitalization
 Guardianship orders
 Naso-gastric tube feeding
 Enforced nutritional replacements (liquid supplements in lieu of solid food)
 Supplementary feeding (additional snacks, meal add-ons, or nocturnal tube feeding)
 Unwanted pharmacotherapy (including drugs with side effects of weight gain)
 Surveillance at meals and in bathroom
 Bed rest and/or movement restriction
 Exercise restriction
 Restrictions of visits and activities contingent upon progress and compliance
 Removal of contraband items (i.e. diet soda, outside food, diet pills)
 Redirections for inappropriate meal-time conversation
 Redirections for rituals with food
 Behavioural contracts
 Measuring of food and calories consumed
 Other coercive or restrictive interactions with staff

Note: Reprinted from “Ethical dilemmas in treating clients with eating disorders: A review and application of an integrative ethical decision-making model.” By Matusek, J. A., & Wright, M. O. D. (2010). *European Eating Disorders Review*, 18(6), 434-452. Copyright 2010 John Wiley & Sons, Ltd and Eating Disorders Association. Reprinted with permission.

APPENDIX B

Recruitment Documents, Informed Consent, Self-Authored Measures, and Demographic

Items

Recruitment Template: Email/Social Media Recruitment Template

Subject: Recruiting Treatment Providers to Participate in Online Survey - Chance to Win a \$50 Amazon Gift Card + Donation to the National Eating Disorder Association

Hello! My name is Jessica Cowan and I am a graduate student in Antioch University Seattle's APA-Accredited Clinical Psychology Psy.D program. As a part of my dissertation research, I am asking treatment providers to complete an online survey related to clinical decision making processes. The survey is designed to take less than 15 minutes to complete, participation is anonymous and voluntary, and following the completion of the survey you will have an opportunity to enter to win a \$50 Amazon.com gift card. Additionally, for the first 250 participants \$2 per participant will be donated to the National Eating Disorder Association (NEDA)*.

If you would like to take the survey please click here: <link>

If you know other treatment providers who may also be interested in participating please forward them this email.

If you have any questions, please do not hesitate to contact me at jcowan@antioch.edu or the chair of my dissertation research committee Chris Heffner, Psy.D., Ph.D. at heffner@antioch.edu

Thank you for your time and consideration!
- Jessica Cowan
Antioch University Seattle, Clinical Psychology Psy.D Program

NEDA is grateful to be receiving donations as part of your participation in this study. Please note NEDA is not formally a part of this research in any aspect; the design, data collection, analysis etc.

Informed Consent

We are asking you to take part in an anonymous survey. Antioch University Seattle is conducting this dissertation research to study treatment providers' knowledge and experiences related to eating disorders. Eating disorder treatment experience is NOT required. This study will help us learn more about the perspectives of treatment providers, and providers in training, who are currently engaging in clinical work. As an incentive for participation, you may enter for a chance to win one of two \$50 Amazon gift cards following the completion of this survey (entry information will not be linked in any way to survey responses). Regardless of whether or not you participate in the gift card drawing, \$2 per participant will be donated to the National Eating Disorder Association (NEDA)* for the first 250 participants who complete this survey.

If you agree to take part, you will not be asked to provide any identifying information, nor will you be identified individually in any outcomes or publications associated with this research. Some demographic information including, age, race/ethnicity, State where your practice is located, licensure status and general practice information will be requested. If you agree to the terms in this consent document you will be taken to an online survey that is designed to take approximately 10 minutes to complete.

There are some minimal risks associated with taking this survey due to the potentially upsetting nature of topics related to symptomology and clinical decision making associated with eating disorders. Some items may ask you about your personal and professional experiences and/or perspectives. Unwanted, unpleasant or confusing feelings or thoughts may result, but these risks are not anticipated to exceed what you may normally encounter in a mental health practice/setting during engagement with clients, treatment teams or other healthcare service providers as a normal part of your role as a mental health professional. You are free to refuse to answer any/all questions and to discontinue your participation in this survey at any time by exiting the survey.

Confidentiality: This research is anonymous. No one outside of the research team will know about your participation in this research study and demographic information collected will not include information that could be used to identify you. If you would like to be entered in the drawing to win one of two \$50 Amazon Gift Cards, you will be provided an opportunity to enter the drawing at the end of this survey. If you choose to participate in the drawing, you will be directed to a separate website hosted by SurveyMonkey where you will be asked to provide your first name, initials of your last name and an email address where you would like the gift card to be sent should you be selected as the winner of the drawing. Responses to the "Gift Card Drawing" will not be linked in any way to the responses provided in the survey. You may choose not to participate in the gift card drawing survey by selecting the "no" response when prompted.

Retention of Records: Non-identifying information will be stored using a randomly assigned participant number that will be automatically generated by SurveyMonkey, and will be stored on a secured, encrypted server that is only accessible by the research team. Responses to the "Gift Card" entry, should you choose to participate, will be stored until the end of the data completion period (December 31, 2019) and will be automatically deleted on January 1, 2020, following the random selection and notification of the gift card recipient.

Please see the Survey Monkey Privacy Policy for additional information regarding your privacy rights associated with the use of Survey Monkey technology/software used to complete this survey.

****NEDA is grateful to be receiving donations as part of your participation in this study. Please note NEDA is not formally a part of this research in any aspect; the design, data collection, analysis etc.****

If you have any questions you may contact the primary researcher Jessica Cowan at jcowan@antioch.edu or the chair of this dissertation research, Chris Heffner, Psy.D., Ph.D. at cheffner@antioch.edu

* I have read the informed consent and privacy information provided above, and agree to participate in this research study

Yes

No

Coercion and Compulsion Treatment Attitudes Scale

In general, when working with individuals who have eating disorders, indicate your level of agreement if a clinician were to do the following:

(1) Strongly agree (2) Agree (3) Somewhat Agree (4) Somewhat Disagree (5) Disagree (6) Strongly disagree

1. Tell an individual that they are free to engage in or terminate treatment at any time
2. Provide information on the pros/cons of treatment to increase treatment compliance or prevent termination
3. Make deals/agreements to increase treatment compliance/adherence or prevent termination
4. Leverage relationships/attachments to others to increase compliance with treatment or prevent treatment termination, such as suggesting that parents, family, significant other, friend may be impacted by the client's behavior/decision.
5. Leverage relationships/attachments to treatment providers to increase compliance with treatment or prevent treatment termination, such as suggesting that treatment providers may be impacted by the client's behavior/decision.
6. Withhold, or support the withholding of, all/some information about treatment methods/goals to increase compliance/adherence, such as information on the intended weight-gain side-effects of medication or caloric loads.
7. Adjust, or support the adjustment of, surveillance in or outside of treatment setting contingent upon treatment progress/compliance.
8. Restrict, or support the restriction of, privileges contingent upon treatment progress or compliance, such as visits or other privileges in or outside of treatment setting

9. Communicate, or support the communication of, the potential use of involuntary treatment measures to increase treatment compliance/adherence or prevent termination, such as NG tube feeding, hospitalization etc.
10. Initiate or support involuntarily treatment/hospitalization

Use of Coercive and Compulsive Treatment Scale

In your work with individuals with eating disorders how frequently have you:

(1) Always (2) Often (3) Sometimes (4) Rarely (5) Never ; or Not Applicable in My Treatment

Setting

1. Told an individual that they are free to engage in or terminate treatment at any time
2. Provided information on the pros/cons of treatment to increase treatment compliance or prevent termination
3. Made deals/agreements to increase treatment compliance/adherence or prevent termination
4. Leveraged relationships/attachments to others to increase compliance with treatment or prevent treatment termination, such as suggesting that parents, family, significant other, or friend(s) may be impacted by the client's behavior/decision.
5. Leveraged relationships/attachments to yourself or other treatment providers to increase compliance with treatment or prevent treatment termination, such as suggesting that treatment providers may be impacted by the client's behavior/decision.
6. Withheld, or supported the withholding, of all/some information about treatment methods/goals to increase compliance/adherence, such as information on the intended weight-gain side-effects of medication or caloric loads.
7. Adjusted, or supported the adjustment of, surveillance in or outside of treatment setting contingent upon treatment progress/compliance
8. Restricted, or supported the restriction of, privileges contingent upon treatment progress or compliance, such as visits or other privileges in or outside of treatment setting

9. Communicated, or supported the communication of, the potential use of involuntary treatment measures to increase treatment compliance/adherence or prevent termination, such as NG tube feeding, hospitalization etc.
10. Initiated or supported involuntarily treatment/hospitalization

Demographic Items

1. Please indicate which of the following best applies to you:
 - a. I am a licensed treatment provider
 - b. I am a treatment provider in a learner/training role (e.g. practicum, residency, postdoc, fellowship)
 - c. I am not currently a treatment provider

2. In the past two years have you treated anyone diagnosed with an eating disorder?
 - a. Yes
 - b. No

3. Please indicate whether or not you have treated any individuals diagnosed with any of the following eating disorders in the past two years:

	Adults	Children/Adolescents	I have not worked with any individuals with this diagnosis in the past 2 years
Anorexia Nervosa			
Bulimia Nervosa			
Binge Eating Disorder			
Avoidant/restrictive food intake disorder			
OSFED/EDNOS			

4. Are you currently in a learner/training role (e.g. practicum, pre-internship, internship, residency, postdoc, fellowship...)?
 - a. Yes
 - b. No
5. What is your age? (open numerical response)
6. What is Your Racial Background?
 - a. White
 - b. Black or African-American
 - c. American Indian or Alaskan Native
 - d. Asian
 - e. Native Hawaiian or other Pacific Islander
 - f. From multiple races
 - g. Some other race (please specify)
7. What is your gender?
 - a. Female
 - b. Male
 - c. Other (specify)
8. Do you consider yourself to be:
 - a. Gay
 - b. Lesbian
 - c. Heterosexual
 - d. Bisexual

- e. Prefer not to answer
 - f. Other (please specify)
9. Select the most applicable highest level of education you have completed
- a. Bachelor's degree (BA, BS)
 - b. Master's degree (MA, MS, MS, MSW)
 - c. Doctoral degree (PhD, PsyD, EdD)
 - d. Medical degree (MD, DO, ND, ARNP, PA-C)
 - e. Other type of degree (please specify)
10. Which of the following best defines your field or program type?
- a. Therapist/Counselor (LMHC, MHC, MFT)
 - b. Social Worker (MSW, LICSW)
 - c. Psychologist (PhD, PsyD, EdD)
 - d. Psychiatrist (MD)
 - e. Physician (MD, DO, ND)
 - f. Nurse (RN, LPN/LVN)
 - g. Other medical providers (ARNP; PA-C)
 - h. Other (please specify)
11. What state do you reside in?
12. How many years have you been a treatment provider? (total, including any experience as a licensed treatment provider prior to enrolling in your current training program).
13. What best describes the setting of your current, primary clinical training placement (e.g. practicum/pre-internship/residency/fellowship)
- a. Academic (University, college, or other academic/school setting)

- b. Private practice
 - c. Hospital or Emergency Department
 - d. Psychiatric Hospital
 - e. Mental Health Program/Clinic
 - f. Primary Care/Family Medicine
 - g. Research Organization
 - h. Military or VA Setting
 - i. Other (please specify)
14. What level of care is offered at your primary clinical training setting?
- a. Outpatient
 - b. Intensive Outpatient (IOP)
 - c. Partial Hospitalization Program (PHP)
 - d. Combined IOP/PHP
 - e. Residential or Inpatient
 - f. All levels of care
15. What age range of clients do you most often see in your clinical training setting?
- a. Children
 - b. Adolescents
 - c. Children and Adolescents
 - d. Adults
 - e. Older Adults
 - f. All ages

16. Please indicate whether or not you received any of the following training/education specific to eating disorders (EDs):

- a. Standalone academic course(s) specific to EDs
- b. Seminar/didactic training specific to EDs
- c. Specialized practicum/internship/postdoc/residency/fellowship training in an ED treatment or research setting
- d. None of these apply to my pre-licensure education/training experiences

17. Please indicate whether or not you received any of the following training/education specific to multicultural factors and treatment bias reduction

- a. Standalone coursework on multicultural factors and treatment bias reduction
- b. Coursework that integrated multicultural factors and treatment bias reduction
- c. Seminar/didactic training on the topic of multicultural factors and treatment bias reduction
- d. None of these apply to my pre-licensure education/training experiences

18. Have you received any training/education specific to bias reduction in eating disorder treatment or research?

- a. Yes
- b. No

Appendix C**Tables**

Table 1. Sample demographics

<i>Demographics</i>			
Age (<i>n</i> = 218)	Mean 44.61	Minimum 24	Maximum 83
Gender (<i>n</i> = 235)	Frequency	Percent	Percent Responding
Female	206	60.6	87.7
Male	28	8.2	11.9
Other (specify)	1	0.3	0.4
Missing	105	30.9	
Race (<i>n</i> = 235)			
White	208	61.2	88.5
From multiple races	11	3.2	4.7
Asian	8	2.4	3.4
Black or African-American	5	1.5	2.1
Some other race (please specify)	3	0.9	1.3
Missing	105	30.9	
Sexual Orientation (<i>n</i> = 232)			
Heterosexual	183	53.8	78.9
Bisexual	18	5.3	7.8
Prefer not to answer	14	4.1	6
Lesbian	10	2.9	4.3
Gay	4	1.2	1.7
Other (please specify)	3	0.9	1.3
Missing	108	31.8	
Education Level (<i>n</i> = 237)			
Doctoral degree (PhD, PsyD, EdD)	108	31.8	45.6
Master's degree (MA, MS, MS, MSW)	79	23.2	33.3
Medical degree (MD, DO, ND, ARNP, PA-C)	36	10.6	15.2
Bachelor's degree (BA, BS)	9	2.6	3.8
Other type of degree (please specify)	5	1.5	2.1
Missing	103	30.3	

Region of the U.S. (*n*= 231)

West	130	38.2
Midwest	38	11.2
Northeast	33	9.7
South	30	8.8
Pacific	0	

Table 2. Professional composition of sample

<i>Professional Demographics</i>	Mean (SD)	Range
Years of Practice (<i>n</i> = 236)	14.1 (11.58)	1 - 48
Licensure/Training Status (<i>n</i> = 317)	Frequency	Percent
Licensed treatment provider	281	82.6
Treatment provider in training	36	10.6
Licensure/Program Type (<i>n</i> = 237)		
Psychologist	115	33.8
Social Worker	47	13.8
Physician	29	8.5
Therapist/Counselor	21	6.2
Other	9	2.6
Other medical providers (e.g., PA)	8	2.4
Psychiatrist	5	1.5
Nurse	3	0.9
Missing	103	30.3
Practice Setting (<i>n</i> = 238)		
Private practice	110	32.4
Primary Care/Family Medicine	40	11.8
Mental Health Program/Clinic	32	9.4
Other (please specify)	17	5
Academic	17	5
Hospital or Emergency Department	13	3.8
Psychiatric Hospital	5	1.5
Military or VA Setting	4	1.2
Missing	102	30
Level of Care at Practice Setting (<i>n</i> = 234)		
Combined IOP/PHP	128	37.6
All levels of care	68	20
Partial Hospitalization Program (PHP)	25	7.4
Intensive Outpatient (IOP)	8	2.4
Residential or Inpatient	3	0.9
Outpatient	2	0.6
Missing	106	31.2
Age Range of Clients (<i>n</i> = 198)		
Adults	109	32.1
All ages	58	17.1

Children and Adolescents	22	6.5
Adolescents	6	1.8
Older Adults	3	0.9
Missing	142	41.8

Table 3. Descriptive statistics

<i>Descriptive Statistics for Variables</i>	Mean	SD	Skewness	Kurtosis
Stigma (EDSS) (n = 270)	1.3641	0.39381	2.91	13.775
Level of Exposure to ED				
<i>Has Had ED</i>				
Yes	1.4211	0.60523	3.387	12.942
No	1.3642	0.351	1.513	0.35
<i>Works at ED Treatment Site</i>				
Yes	1.3269	0.39331	3.856	22.958
No	1.4501	0.43142	1.722	3.765
<i>Interpersonal Exposure</i>				
Yes	1.3347	0.30683	1.606	2.444
No	1.4087	0.48065	2.807	11.292
Attitudes Toward Coercive/Compulsive				
Treatment Provision Status	52.9322	18.51062	-0.157	-0.303
<i>Yes - Provides ED Treatment</i>		19.39764	-0.178	-0.387
<i>No - Does Not Provide ED Treatment</i>	53.7209	15.76262	-0.271	-0.177
Frequency of Use of Coercive/Compulsive				
	2.2525	0.72446	0.505	0.183

Table 4. Tests of normality

Tests of Normality for Dependent and Independent Variables

Variable	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Stigma (EDSS)	0.228	182	n.s.	0.682	182	n.s
<i>Has Had ED</i>						
<i>Yes</i>	0.297	46	n.s	0.575	46	n.s
<i>No</i>	0.211	191	n.s	0.817	191	n.s
<i>ED Treatment Site</i>						
<i>Yes</i>	0.258	144	n.s	0.644	144	n.s
<i>No</i>	0.202	93	n.s	0.825	93	n.s
<i>Interpersonal</i>						
<i>Yes</i>	0.227	107	n.s	0.824	107	n.s
<i>No</i>	0.233	130	n.s	0.708	130	n.s
<i>Yes -Provides ED Treatment</i>	0.228	194	n.s	0.677	194	n.s
Use of Coercive /Compulsive Full Sample	.102	182	n.s	0.971	182	0.001
Attitude Toward Coercive/ Compulsive Full Sample	0.04	182	.200*	0.992	182	0.438
<i>Yes - Provides ED Treatment</i>	0.038	186	.200*	0.992	186	0.375
<i>No - Does Not Provide ED Treatment</i>	0.06	68	.200*	0.989	68	0.789