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It is Time to Talk About it: Designing a Health Communication Program for Eating Disorder Recovery in an Appalachian University

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IT IS TIME TO TALK ABOUT IT: DESIGNING A HEALTH COMMUNICATION

PROGRAM FOR EATING DISORDER RECOVERY IN AN APPALACHIAN

UNIVERSITY

A thesis submitted to

the Graduate College of

Marshall University

In partial fulfillment of

the requirements for the degree of

Master of Arts

Communication Studies

by

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May 2012

To my best friend, Libby, for teaching me the meaning of courage and strength in

the fight against eating disorders.

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Abstract

The purpose of this thesis was to evaluate the treatments used in current eating disorder programs and to develop a more effective model using two relevant communication theories: the Transtheoretical Model of Change and Social Networking Theory. Further, the thesis explored the need for greater mental health literacy on Appalachian college and university campuses as it relates to the three major eating disorders defined by the *DSM-IV-TR*: anorexia nervosa, bulimia nervosa, and binge eating disorders. The analysis of current treatment revealed an overemphasis on physical health and quantitative medical progress. Applying both the Transtheoretical Model of Change and Social Networking Theory to the known characteristics of these disorders produced a program that focused more on the underlying causes of the illnesses rather than the medical symptoms.

Keywords: health communication, anorexia, bulimia, binge eating disorder, Appalachia, Social Networking Theory, Transtheoretical Model of Change

Chapter 1: Background of Problem

Since eating disorders became recognized as a distinct disease in The Diagnostic and Statistical Manual of Mental Disorders (*DSM-III, 1980* as cited in Toro & Sherwood, 1998*),* their prevalence in society has been difficult to ignore. Compared to mere decades ago, the incidence of these deadly disorders has skyrocketed, and what is worse, the illnesses themselves have evolved. What was once the desolate territory of self-starvation and self-induced vomiting has expanded to include diabetics refusing insulin for weight loss benefits, college-aged women saving their daily caloric intake for binge alcohol drinking in the evening, and even pregnant women taking advantage of morning sickness to minimize weight gain during maternity.

Definition of Illness

The *DSM-IV-TR* (American Psychological Association, 2000) characterizes eating disorders as severe disturbances in eating behavior, which can be broken down into three distinct categories: anorexia nervosa, bulimia nervosa, and ED-NOS (eating disorder not otherwise specified). However, all three subgroups are indicative of distorted perceptions of body image and weight. Anorexia nervosa originates from the Greek word "nervous lack of appetite" (Blackman, 1996) and is perhaps the most well-known of all eating disorders. Anorexics have a debilitating fear of weight gain, despite the fact that their diagnosis is contingent upon weighing less than 85% of their expected body weight. Bulimia nervosa originates from the Greek word "hunger of an ox" (Chassler, 1998) and is characterized by recurrent and compulsive bingeing and purging episodes. ED-NOS includes disordered eating that does not meet the criteria for any specific eating disorder.

For example, this distinction might include engaging in self-starvation methods but continuing to menstruate regularly.

Prevalence in the United States

"To say the pervasiveness of eating disorders in the United States is distressing may be an understatement" (Napierski-Prancl, 2008, p. 151). It is estimated that eating disorders affect over 11 million people in the U.S.—more people than are affected by Alzheimer's disease (NEDA, 2005). Of those who are struggling with anorexia or bulimia, only about 15% are male. A 2010 ABC News article cautions that age and gender are even becoming wildcards—prepubescent girls are developing eating disorders as young as 5 and 6 years old and males continue their contribution toward the overall eating disorder population (Hutchinson, 2010). There is more social support for the Hollywood thin ideal and the multibillion dollar dieting industry in this country than there is funding for anorexia patients who seek wellness.

Beginning with families and expanding to include medical professionals and government policymakers, there is an incredible social ignorance about eating disorders. It has become increasingly more difficult to get the facts because popular culture either brushes mental illness under the rug or makes it into a lighthearted mockery. Now, more than any other period in history, American youth are plagued with adult issues at a younger and younger age. Toddlers are preened for lives in pageantry and teenagers are expected to balance a course load of AP classes, varsity athletics and volunteer hours if they are to be considered for college admittance. In addition, there is enormous pressure to engage in sexual and drug-related activities to gain social status. It is small wonder more people do not develop eating disorders as a way to cope.

Prevalence on College Campuses

The startling rate of disordered eating in the United States, especially among college-aged women, has grown to epidemic proportions. Conservative estimates by the National Eating Disorder Association (2006) suggest as many as 20% of college students may be struggling with the disease. The National College Health Assessment (2007) reported a figure as high as 60% (as cited in Hartnett, 2011). These findings would suggest that a medium-sized institution like Marshall University, with an enrollment of around 16,000, could be neglecting the needs of as many as 9,600 individuals (U.S. News & World Report, 2011). Research indicates that the prevalence of eating disorders among college students is on the rise. In fact, the prevalence of subclinical disorders is common enough that educators can assume that up to half of any class of females will be suffering from some level of problem (Parham et al., 2001). Despite the significant attention that drugs and alcohol receive on college campuses, few resources and supports are available to students who are recovering from an addiction like an eating disorder. Which, as the statistics indicate, account for a much larger problem. With such high rates, it is imperative that universities provide eating disorder-specific support and education.

Why College?

The literature on college student mental health clearly states that college students experience various life transitions and stressors that increase the risk of mental disorders (e.g., depression, eating disorders; Hunt, Eisenberg, & Kilbourne, 2010 as cited in Perron et al., 2011). The mental, physical, and financial demands of college are unlike anything most incoming freshmen have ever experienced and eating disorders can become both an escape from and an extension of the stress being felt. The stakes have suddenly become

higher as peers compete for future marriage partners, top internships, and post-graduation employment. Similarly, it is surprisingly easy to under eat and over eat at the cafeteria, abuse exercise at the student recreation center, and disguise purging in a communal living environment. These already burdensome pressures can increase for young women who elect to participate in the uniquely college experience of sororities (Basow, Foran, & Bookwala, 2007).

Prevalence in Appalachia: A Special Population

Appalachian populations are notorious for experiencing disproportionate health problems compared with the nation as a whole, so a 60% prevalence rate of disordered eating (Hartnett, 2011) may be an underestimate here. Hendryx (2008) found Appalachian residents have a decided disadvantage in the fight against eating disorders for several reasons. First, they have poorer access to mental health providers, in general, and especially those providers with more advanced or specialized practice areas—within which eating disorders surely fall. Beyond general rural factors, Hendryx (2008) argues the unique history and culture of Appalachia built upon self-reliance and fatalism may be contributing to a rejection of mental health issues, in general, and outside assistance in particular. According to America's Health Rankings (2010), West Virginia ranks 43rd out of 50 states in overall wellness; of specific concern was an alarmingly low health literacy and a low acceptance of mental health professionals. Neighboring Appalachians in Kentucky and Tennessee were not much better off, ranking 44th and 42nd respectively. Huntington, West Virginia, home of Marshall University draws largely from these three states given its unique location. (see Figure 1.1)
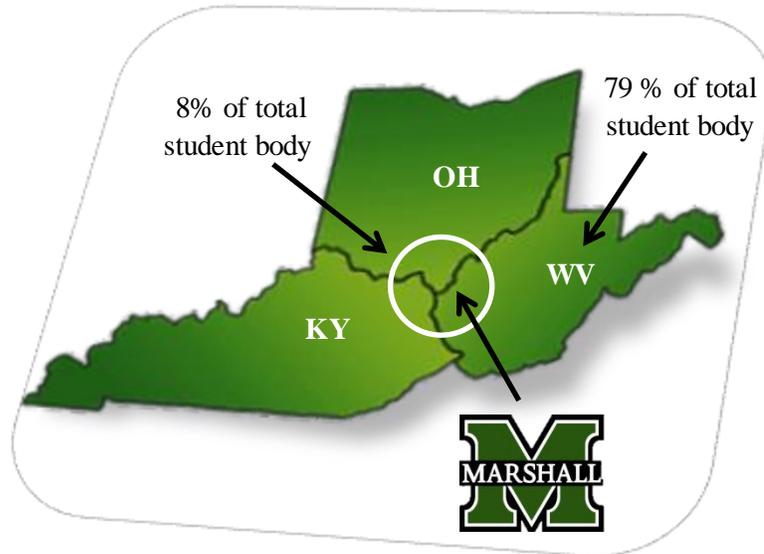
Figure 1.1 Marshall University Student Residency Distribution 2005-2011

Chapter 2: High Cost of Eating Disorders

Eating disorders are associated with some of the highest levels of medical and social disabilities of any psychiatric disorder (National Eating Disorder Association, 2011). The Eating Disorder Association (EDA) warns of an appalling legacy of health and social costs created by the financial burdens of treating these disorders (BBC News). These burdens are only intensified when applied to Appalachia, a little slice of the third world in the United States, where poverty is three times the national average (Gray, 2009). Eating disorders must be addressed from both a medical and a mental health perspective, as full recovery will not occur if either component—either medical or psychiatric—is neglected. Eating disorders are not about food; rather they are an attempt to use food and weight to deal with deeper issues. If it is understood that food is not the whole problem, it cannot be expected to be the whole solution.

Individual Cost

Much to the dismay of anorexics and bulimics, their behavior is riddled with problems. Anorexia causes increased irritability, loss of concentration, dizziness and lethargy, poor circulation, constipation, and vitamin deficiencies. These problems can result in much bigger, and more deadly problems the longer an individual struggles, including: amenorrhea and infertility, osteopenia and osteoporosis, brittle hair and nails, lanugo hair, yellowing skin, anemia, dangerously low blood pressure and pulse, heart palpitations, brain damage, and multiple organ failure (Mayo Clinic Staff, 2012). Bulimia mirrors anorexia with regard to minor disturbances, like irritability and loss of concentration, but the long-term effects are decidedly different. Individuals who remain trapped in a binge-purge cycle for many months or years can expect to experience one or more of the following: electrolyte imbalance, severe dehydration, acid reflux, swollen salivary glands, inflamed throat, weakened and decaying teeth, calloused fingers, and esophageal tears (Mayo Clinic Staff, 2012).

Recovery is an average seven to ten year time commitment (Herzog et al., 1999 as cited in Lamoureux & Bottorff, 2005), which means an anorexic, bulimic, or binge eater is frequently forced to put his or her life on hold, well after his or her discharge from a treatment facility or after initial diagnosis. Educational plans or career goals may be forced to shuffle in a grand juggling act of emotional, physical, and financial healing. "A residential program costs $30,000 a month on average. And many patients require three or more months of treatment, often at a facility far from home. Even after leaving a specialized program, patients may need years of follow-up care" (Alderman, 2010, para. 3). Eating disorders take their toll on individuals in a variety of ways, but arguably the

most exhausting are the hidden costs of these chronic illnesses. Time missed with family and friends, and internal dialogues of self-hate, to name a few overlooked consequences, all come at a price. "It's going to hurt you for the rest of your life if it ever gets on your record that you've had this problem" (ID 14 as cited in Becker et al., 2010, p.642).

Interpersonal Cost

Deeply rooted in these disorders are impaired interpersonal relationships. Hartmann, Zeeck, and Barrett (2010) argue interpersonal problems are a core component of eating disorders in that they serve as a risk factor for development, act to maintain the disorder, and often develop as a result of having suffered. "…it [my eating disorder] just makes any relationship impossible" (Newton, Boblin, Brown, & Ciliska, 2006, p. 325). People are less likely to develop strong bonds with someone who is suffering from an eating disorder because engaging in disordered eating behaviors often necessitates seclusion and minimal contact with others. Many anorexics and bulimics also worry that disclosing their eating disorder will jeopardize an existing connection. "I thought that people would judge me. I thought that people would be disgusted with what I was doing and that they wouldn't want to know me anymore" (Hepworth & Paxton, 2007, p. 498). Research also supports a prevalent stigma of individuals suffering from disordered eating that has serious interpersonal repercussions.

In a study by Stewart et al. (2008), a significant bias toward individuals with anorexia nervosa was manifest as a rejection of those individuals as potential friends and dating partners. Participants in the same study perceived anorexia as more severe than both mononucleosis and schizophrenia. In a similar way, Mond et al. (2006) documented a societal reluctance to consider eating disordered individuals suitable as employees or

tenants. This prejudice can have damaging effects on their targets, often serving only to further isolate the individual from the support they need and the help they deserve. "I have lost lots of friends due to the illness…I have more of a relationship with my eating disorder than a partner" (Jones, Evans, Bamford, & Ford, 2008, p. 279). The paradox, of course, is that eating disorders are rarely beaten by the sufferer fighting alone.

Societal Cost

These disorders place a high burden on the community as well. In 2006, Forbes magazine reported on the findings compiled by various government health agencies which showed that the five most-chronicled 'hard' addictions—alcohol, drugs, tobacco, gambling and eating disorders—are what society truly pays for. "Those maladies cost taxpayers and businesses $590 billion annually, primarily in lost productivity and government-assisted medical treatment" (Van Riper, 2006, para.10). Eating disorders account for $107 billion of that price tag, according to the National Institute of Health. Lynn Grefe, the chief executive of the National Eating Disorders Association brought home this financial strain in an interview by Newsweek when she said, "Wherever I go, I hear the same stories—families depleting their retirement accounts, going through life savings, taking second mortgages on their homes…(as cited in Bennett, 2006, para. 3)" to pay for their child's eating disorder treatment.

Chapter 3: Current Treatment Constraints

Current treatment efforts leave much to be desired. Long-term outcomes continue to be poor and approximately one half of all patients drop out of treatment (Nordbø et al., 2006). It is a well-known fact that anorexia nervosa boasts the highest mortality rate of any mental illness and as Malson, Bailey, Clarke, Treasure, Anderson, & Kohn (2011)

explain, studies suggest eating disorder interventions are perhaps no better or more effective than they were fifty years ago. That is not to say that there are no redeeming qualities of the current treatment strategies, only that it is time to at least experiment with possible alternatives. As Albert Einstein once said, "Insanity: doing the same thing over and over again and expecting different results."

Location of Treatment Centers

A thorough review of treatment centers and the services that they offer may shed some light on the shortcomings of current treatment efforts. The success of an eating disorder intervention is frequently threatened by drop-out and recidivism rates. Although, even before those issues can pose a threat, there exists a legitimate hurdle of getting individuals into programs. It is simply unacceptable that the best that prominent advocacy agencies like NEDA and ANAD can do for Huntington, West Virginia residents is to direct them to support hundreds of miles outside state of lines (see Appendix A). "I think access to care can be a big problem. Even if it's not just a factor of, 'I don't have insurance, I don't have money,' finding places here where I live that treat eating problems is hard. There are not a lot of places here" (ID 10 as cited in Becker, Arrindell, Perloe, Fay, & Striegel-Moore, 2010, p. 642).

Health Insurance Coverage

In addition to the lack of local available programs, there is no standard coverage for eating disorder patients in the United States. According to Krauth, Buser, and Vogel (2002), health insurers provide an average of ten to fifteen counseling sessions, twenty-six inpatient days, and twelve to sixteen outpatient days per year for bulimic and anorexic patients, respectively. However, each state and its insurance carriers are allowed to create

their own definitional criteria for treatment. As a result, insurers in some parts of the country are able to refuse coverage of eating disorders altogether (NEDA, 2011). As one eating disorder client remarked, "…the insurance company decided that, because I had been able to graduate [from high school], I must be well and no longer need inpatient treatment. When I heard this, I was distraught. I threw up all night" (Taylor, 2008, p. 265).

Program Admission

Finding a treatment center that is close enough to home and whose services are adequately covered by insurance is an arduous task, but the frustrations may not end there. Programs often employ long waiting lists and always reserve the right to deny admission based on their own criterion. An elaborate admissions process is fairly standard and usually consists of blood work and medical record checks, as well as, an extended telephone interview. Unfortunately, these processes are just as much about fighting not to get blackballed as they are about fighting to gain admission. It is not uncommon for treatment centers to deny admission to those patients who have active psychosis, have active suicidal ideation, do not carry an official DSM-IV diagnosis, present unstable vital signs or acute health risk, are registered sex offenders, or cannot supply an immediate financial deposit. As previously mentioned, this is especially troubling as eating disorders frequently coexist with other illnesses.

Physical Health Emphasis

Daily life inside an eating disorder treatment program is highly regimented (see Appendix B) and almost entirely centered upon physical health restoration. For example, 90% of treatment physicians report requiring daily weigh-ins and weight goal contracts

(Gürze Books, 2009). This regime can be very discouraging to potential patients, as one young woman articulated, "I don't want to go into treatment. Because I feel, it doesn't get to the root [of the problem]" (*Charlene as cited in Williams and Reid, 2010, p.563). Charlene is not the only patient with this concern as the American Association of Anorexia Nervosa and Associated Disorders (ANAD) estimates only one in ten men and women with eating disorders receive treatment, and of those who enter treatment and do not drop out, nearly 13% are discharged because of insufficient weight gain or perceived lack of motivation to gain weight (Gürze Books, 2005).

From the perspective of the patient, however, the physical symptoms are minor as compared to the total impact the illness has on his or her life (Jones et al., 2008). Research done by Williams and Reid (2010) and Eivors et al. (2003) centered on the patient's concern with current treatment, in which the issue of weight is either implicitly or explicitly the in foreground of the healing approach. The responses they gathered offer invaluable insight into the crux of this issue. A particularly frustrated patient shared a common feeling among clients, "I think treatment centers are a load of crap…treatment facilities really only serve to fatten you up so that they can collect their exorbitant fees based on you 'looking healthier' while inside you're still a mess" (*Taylor as cited in Williams & Reid, 2008, p. 563). Another patient commented on this clash of priorities between her and her doctor: "I don't think he was sensitive enough to see what I really needed. He just kept focusing on the eating, he kept focusing on weighing me and keeping this diary" (I6:135 as cited in Eivors et al., 2003, p. 98). It becomes clear that the current system is not working.

Failure of Current Interventions

Anorexia and bulimia are so stigmatized and marginalized by our society that the easiest forms of treatment are preferred over more effective interventions. If doctors can make an anorexic pack on the pounds while inpatient or prevent the bulimic from purging for thirty days straight, everyone can go on believing the problem is solved. Contemporary treatments have veered off course, succumbing to "the temptation to 'do' therapy rather than focus on empowering or promoting independence from the practitioner (DeCoster and George, 2005)." Most people fail to understand that fractured communication is as tragic a consequence of extended eating disordered behavior as the behaviors themselves or an emaciated appearance.

Health professionals and current weight restoration-focused treatments, too, are guilty of endorsing this myth that "eating disorders are just about food". Based on decades of combined clinical experience, eating disorder scholars Siegel, Brisman, and Weinshel (1997) published a book chockfull of strategies for families and friends of those struggling. In large part, the success of their book can be attributed to their fundamental understanding that lasting recovery requires more than renewed physical health.

> Often people hope for something like a surgical procedure that will 'cut out' the behavior the way a surgeon removes diseased tissues or organs…Because the symptoms of bingeing, vomiting, exercising, or starving can be so disruptive and frightening, it is easy to pay attention only to those behaviors. To do so, however, misses the point. The overt symptoms are just the tip of the iceberg (pg. 59).

It is time to stop relying on quantitative measures and empirical support for answers and consider tailoring the solution to the intervention beneficiaries—the patients—and they are saying *communication* is the key.

Chapter 4: Applicable Communication Theories

Considering the important role that communication and relationships seem to play in both the genesis and maintenance of an eating disorder, as well as, the critical understanding that not all individuals are ready to welcome behavior change simultaneously, a great starting point for the development of a more holistic and accessible treatment program is the direct application of two communication theories. Social Networking Theory, also known as Social Network Analysis (SNA), or simply, Network Theory, is a logical choice given the appropriate macro focus on eating disorders as a systemic illness and the assumptions of the theory that it is through diverse channels of communication that the illnesses can be fostered, exacerbated, and cured. The Transtheoretical Model of Change (TTM) is one of a limited number of health behavior change models, and one of an even smaller segment that permits a nonlinear progression through the change process. With what is known about human behavior and the direction these illnesses may take, it is essential to view eating disorders as illnesses capable of relapse and predictability.

Social Networking Theory

Social Networking Theory explores how interactions between individuals within a group affect beliefs and behaviors. SNA contends that the action of any individual in the network inevitably affects every other network member by proxy. According to the theory, social networks operate under the condition that the sum is greater than the parts; once in the network web it becomes increasingly difficult to tease out the input of individual participants in isolation. In other words, examining the links between

individuals in relation to the larger system is the surest way to determine the health, well-being, and influence of a single member.

According to the seminal research of Wasserman and Faust (1994), social networks consist of a set of actors, or "nodes", and the "ties" or "edges" between these actors. The nodes may be individuals, groups, organizations, or societies. The ties may fall within a level of analysis (e.g., individual-to-individual ties) or may cross levels of analysis (e.g., individual-to-group ties) (Katz, Lazer, Arrow, & Contractor, 2004). To fully understand social network analysis, it is important to understand a number of dimensional relationship possibilities, including: communication ties, formal ties, affective ties, material or workflow ties, proximity ties, and cognitive ties. Katz et al. (2004) offer practical definitions of these terms.

> These include communication ties (such as who talks to whom, or who gives information or advice to whom), formal ties (such as who reports to whom), affective ties (such as who likes whom, or who trusts whom), material or work flow ties (such as who gives money or other resources to whom), proximity ties (who is spatially or electronically close to whom), and cognitive ties (such as who knows who knows whom). (p. 308)

Network ties are multifaceted in that they are also uniquely affected by variables like frequency of contact, intensity of contact, content of contact, and the medium of contact.

With what is known of interpersonal relationships as a driving force in the etiology and maintenance of eating disorders, social networking theory represents a logical framework in the development of an effective eating disorder support program. As previously mentioned, much of the fault found in current treatment methods is the handling of these disorders as an individual illness. However well-intentioned, recovery initiatives that neglect the function of network ties in the healing process are failing the patient. Social networking theory allows for an in-depth analysis of the full picture of the

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disorder; beyond overt symptomology. It calls into question important issues such as: Does the eating disordered individual spend most of their time with other individuals in support of their maladaptive behavior? Does the eating disordered individual interact with others in person or are they relatively isolated, relying on social media as a communication outlet? How have social media changed what it means to suffer from an eating disorder through the recent boom of Pro-Ana and Pro-Mia, or anti-recovery, communities?

Transtheoretical Model of Change

The Transtheoretical Model (TTM), also known as the Stages of Change (SOC) Model, contends behavior change is a six stage process. However, this progression unfolds over a substantial amount of time and frequently deviates from a predictable linear path. TTM fundamentally argues that not all individuals in need of behavior modification express equal readiness to see those changes through. Progression through the six stages is influenced by what the authors term, processes of change, or the activities and coping skills employed to effectively navigate through the stages (see Appendix C). The ten processes of change are then coupled with the pros and cons of behavior change, self-efficacy, and temptation to determine the position of an individual within the model and, therefore, the most appropriate intervention strategy.

TTM quickly has become one of the most widely used models of understanding health behavior because it is largely based on intuition (Glanz et al., 2008). The theory was originally developed for smoking cessation, but has been applied to a number of areas, such as exercise adoption and weight loss interventions (Glanz et al., 2008). TTM is essentially a readiness scale ranging from no intention to take action on one extreme

and 100% confidence in the ability to avoid temptation and relapse on the other. The core constructs of the theory include the six stages of change: precontemplation, contemplation, preparation, action, maintenance, and termination, as well as, the ten processes of change: consciousness raising, dramatic relief, self-reevaluation, environmental reevaluation, self-liberation, social liberation, counterconditioning, stimulus control, contingency management, and helping relationships (Glanz et al., 2008). Processes of change provide important guides for intervention programs, as processes are like independent variables that people need to apply to move from stage to stage.

In their highly regarded health communication textbook, Karen Glanz and her colleagues (2008) provide an illuminating definition for each of the main tenets of TTM. *Precontemplation*, the first of the six stages of change represents no intention to take action within the next six months. Individuals in this stage tend to utilize denial and minimize the potential severity of their high-risk behaviors. "People may be in this stage because they are uninformed or under-informed about the consequences of their behavior. Or they may have tried to change a number of times and become demoralized about their abilities to change" (Glanz et al., 2008, p. 100). *Contemplators* are more aware of pros to behavior change than *precontemplators*, but they are still ambivalent. Categorically, they include any individual intending to take action within the next six months. Those in the *preparation* stage intend to take action within the next thirty days and have also taken some behavioral steps in this positive direction, which could be as simple as initiating a discussion with their physician or purchasing a self-help book.

Action is only one of six stages in this model; therefore, not all behavior modification is weighted equally. To have achieved this fourth stage of TTM, overt behaviors will have been changed for up to, but no more than, six months. "In most applications, people have to attain a criterion that scientists and professionals agree is sufficient to reduce risks for disease" (Glanz et al., 2008, p. 100). *Maintenance*, then, represents overt behavior changes that have been in effect for more than six months. It was estimated that *maintenance* lasts from six months to about five years.

The sixth and final stage, *termination*, signifies both the end of the model and the theoretical end to the behavior. At this point, the individual has 100% confidence in their ability to avoid temptation and relapse; "Whether they are depressed, anxious, bored, lonely, angry, or stressed, they are sure they will not return to their old unhealthy behaviors. It is as if they never acquired the behavior in the first place…" (Glanz et al., 2008, p. 101). The majority of research done on eating disorders focuses on areas other than life after the illness, therefore, it is difficult to estimate the number of individuals who reach the *termination* stage. Reaching this stage is very possible though.

The TTM would be an asset to the development of a reinvented treatment approach because it acknowledges both: that recovery is a process and that the process is as unique and individualized as the unique individual seeking recovery. This model reflects, in stark contrast to the physical health emphasis of so many current treatments, the continuum of these illnesses. As far as weight gain contracts and feeding tubes are concerned, the corresponding individual is ready for behavior change and the time for that change is now. Eating disorders affect approximately 11 million people in the United States (NEDA, 2005). The odds that all 11 million individuals can be motivated and

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accepting of drastic behavior change in the same way and on the same timetable is simply naïve. "Every recovery journey is unique; no two individuals will follow the exact same path. For some, recovery is crossing back to a former way of life; for others, recovery is forging ahead to a new way of being" (Power, 2010, p.114).

Chapter 5: Application of Theory to a Collaborative Approach

Individuals with the greatest chance of attaining a full recovery from an eating disorder are those who hold membership in a supportive social network from which the support provided aligns with the readiness of the individual to change their behavior. If an eating disorder treatment is to be successful, it must find a way to use communication as the intervention (see Appendix D). A collaborate approach would take the application of Social Networking Theory a step further than current treatment initiatives; removing an individual from a toxic social network is a temporary solution. Communication is the essence of relationships and recovery, so isolation from relational ties, however eating disorder friendly, is ultimately troublesome. Better still would be equipping social networks with the communication skills and prompts necessary to foster recovery. Similarly, if individuals with eating disorders are ever to transition into the real world, outside a treatment program, they must know what and how to communicate within a system that may be less than well-versed in their specific needs. This is especially crucial as the mores change with behavior readiness fluctuations. A collaborate model integrating the principles of Social Networking Theory will be the first step.

Social Networking Theory

Women in America function in a society where appearance and status are currency and this obsession with beauty and success becomes the means of connection

with one another—even among strangers. In a culture that rewards dieting, eating disorders can become "contagiously competitive." Anorexics, bulimics, and binge eaters can become ensnared in a web of individuals whose interactions with one another initiate, encourage, maintain, or even nurture the illness. Understanding this dynamic interplay between individuals and social systems is paramount to revolutionizing what it means to treat disordered eating. "…eating disorders are not only an individual illness, but also a 'valid diagnosis of the family system'" (Prescott & Le Poire, 2002, p. 62). This statement could just as easily read "valid diagnosis of the dominant culture (or social network)."

Social networks hold great sway in the recovery process. Although the importance of weight gain and physical healing should not be ignored, especially as many anorexics are severely underweight, it would seem counterproductive to spend time, money, and energy on external symptoms if the individual is destined for relapse at the hands of their social network. If an eating disordered individual remains linked with those who value thinness and dieting, or whom also engage in disordered eating, it will be difficult for that individual to achieve change.

A growing body of literature is favoring self-help groups over more traditional treatment methods in achieving sustained recovery. Peer support groups have been documented to be effective in supporting positive behavior changes and coping tools in a range of health behavior interventions such as alcohol dependency (Kelly, Magill, & Stout, 2009), patients dealing with severe burns (Badger & Royse, 2010a) and cancer (Grande, Myers, & Sutton, 2006), severe mental illness (Whitley et al., 2008), traumatic brain injuries (Hibbard et al., 2002 as cited in Badger & Royse, 2010b), HIV positive adolescents (Funck-Bretano et al., 2005), elders with diabetes (DeCoster & George,

2005), suicide survivors (Cerel, Padgett, & Reed, Jr., 2009) and eating disorders (Gísladóttir & Svavardóttir, 2011).

Research conducted by Whitley et al. (2008) examined recovery communities for individuals with severe mental illness. Feelings of safety and security in the program allowed participants to connect with others and just "be themselves." One of the most important aspects of the support group-style intervention, that significantly affected recovery, was the function of the group as a surrogate family. As one women stated, "When I have situations I need to talk about, I come in here and just throw it all out here, and people give me advice, and solutions, and different ways to handle situations" (Whitley et al., 2008, p. 179). The prominent findings of this study echoed themes common among eating disorder support group participants, where ongoing constructive social interactions in a recovery community prompt positive behavior change.

Alcoholics Anonymous (AA) is perhaps the most well-known recovery self-help group in the world. "Some 1.2 million people belong to one of AA's 55,000 meeting groups in the U.S." (Koerner, 2010, para.1). Addiction studies and analyses of recovery from alcohol dependence suggest AA helps individuals through "enhancing self-efficacy, coping skills, and motivation, and by facilitating adaptive social network changes" (Kelly et al., 2009, p. 236), "the opportunity to forge new friendships and seek, as well as offer, peer support" (Boisvert, Martin, Grosek, & Clarie, 2008, p. 207), and providing "a context for expiation of such secrets [of shame, guilt, and regret about the behavior]" (Humphreys, 2000, p. 500). These mechanisms of behavior change may well be the reason AA has been going strong for 75 years.

Another successful application of peer support group programming deals with victims of serious burns. "Because they have faced similar health or emotional challenges, peer supporters bring a unique and personal perspective" (Badger & Royse, 2010b, p. 3). In the case of burn survivors, a vast majority of study participants reported that their lives had been dramatically changed as a result of their involvement in the peer support group. A male survivor stated, "Five minutes with a peer supporter skipped six weeks [of information gathering]. I felt automatic trust. You know you can trust them with your feelings" (Badger & Royse, 2010a, p. 306). In this way, peer support was able to provide hope and supply survivors with role models living futures apart from their trauma. As another gentleman said, "People can tell you [that you can rebuild your life] but you can't see it without a real example. You can see their scars, know that they are progressing and moving on" (Badger & Royse, 2010a, p.306).

A source of support for suicide survivors has consistently been found in peer self-help groups. Not unlike those battling anorexia, bulimia, or binge eating disorders, psychological care for suicidal thoughts in our society is highly stigmatized. Cerel, Padgett, and Reed, Jr. (2009) found that sharing stories with others who have "been there" is an essential part of the healing process. "Here you can meet and talk with (or just listen to, if you prefer) people who are in your shoes. You can openly express your feelings and experiences with a group of caring individuals who will never judge you" (Jackson, 2003, as cited in Cerel et al, 2009, p. 589). This particular study adds powerful credibility to the support group intervention style. Any tactic that can prompt discussion and behavior change in a population that recently imagined suicide, as the only way, must be onto something.

In much the same way as traditional support groups function to keep members abstinent or drug-free, like Alcoholics Anonymous for example, by harnessing the power of positive role modeling and a community of wellness, the social networks to which eating disorder patients belong often serve to keep them sick. "Two of my closer friends, one of them was also anorexic and the other was bulimic, so I had that support system, let's not eat together…" (Jane as cited in Granek, 2007, p. 368). The social and interpersonal dimensions of eating disorders must not be overlooked—these maladaptive behaviors do not exist in a vacuum. Be it a familial, cultural, or societal influence, no anorexic, bulimic, or binge eater is acting alone.

Understanding that the likelihood of lasting change is dependent upon the recovery friendliness of the larger social network, universities pose a unique threat in the fight against eating disorders. This infrastructure is even more exaggerated on Appalachian campuses where there is a well-documented social network of mental health disparity. Not least among the inequity is poor mental health literacy and skepticism of outside medical assistance. Unfortunately, neither limited access to specialized care, sub-par health insurance coverage, nor a feeble understanding of eating disorder symptomology immunizes against these disorders. In which case, the larger Appalachian culture becomes a social network where disordered eating can thrive. College campus communities have the ability to operate as distinct cultures and it is time those concerned with the study of eating disorder research need to harness the potential of these institutions as change agents and intermediaries amidst a larger system of dysfunction.

At Marshall University in Huntington, West Virginia, the College Support Program for Students with Asperger Syndrome was developed in 2002 and currently has

a waiting list of over 200 students (Wilcox, 2008). The program has been wildly successful because of its incorporation of social networking theory. "…support focuses on preventing problems before they occur, making changes in environments, teaching new skills and improving quality of life. [It] is a family-centered approach that emphasizes interagency collaboration, the use of formal and informal supports, and services tailored to the needs of the family or support system" (The Autism Training Center at Marshall University, n.d., para. What is the Family Focus Positive Behavior Support (FFPBS) Program based on?). The university also offers academic courses on autism, as well as, training workshops and free family coaching sessions.

Not unlike special assistance programs like that for students with Asperger's Syndrome or learning disabilities, graduate or doctoral psychology students could be paired with a student carrying an eating disorder diagnosis. This relationship would function as a level of accountability and support for the student, and would ultimately help both the graduate mentor achieve their requisite clinical experience and increase standing in the field of eating disorder research. These mentors would be responsible for weekly counseling sessions with their mentee, as well as, running the on-campus support group. To keep individuals committed to the program, the focus would be on communication, specifically having access to a healthy support network 24/7 and applying the TTM processes of change, as designed, so all participants are equipped with realistic and attainable strategies for moving along a trajectory of achieving behavioral termination, regardless of where they entered the process (see Appendix E).

The fact that the selected mentors would also be full-time students, and potentially similarly aged to their eating disordered mentee, might circumvent the fear

many eating disordered patients have about intimidating medical professionals misunderstanding their concerns about recovery because of an inability to relate to them on their level. By the time an anorexic or bulimic displays overt symptoms of their disorder, they have likely accumulated a wealth of shame and disgust about their condition. What they do not need is to feel as if their social network inhibits their ability to expiate these feelings simply because there is a palpable social stigma toward mental illness, even among medical professionals (Becker et al., 2010), where the open and honest communication needed for wellness is silenced by taboos. Therefore, incorporation of Social Networking Theory provides a foundation for understanding the significance of interpersonal ties in the recovery process, but the development of a truly effective eating disorder treatment program will also require the processes of change outlined in the Transtheoretical Model of Change.

Transtheoretical Model of Change

Eating disorders do not adhere to a predictable, linear lifecycle. Therefore, it makes little sense to streamline wellness into one methodology. As far as weight gain contracts and feeding tubes are concerned, however, individuals are ready for behavior change and the time for that change is now. Unfortunately, a standardized process neglects this fundamental notion of individualization and consequently misses out on the robust offering of readiness-tailored treatment strategies presented in the TTM.

Glanz et al. (2008) discuss a number of covert and overt activities people use to progress through stages of change, as could be applied to an eating disorder recovery model. The first three techniques of consciousness raising, dramatic relief, and environmental reevaluation have documented the most effectiveness when applied to

those in the TTM stage of precontemplation. Contemplators and preparers most typically respond to self-reevaluation strategies. Those individuals in the action stage should be focusing on self-liberation measures and the final four techniques of counterconditioning, reinforcement management, stimulus control, and helping relationships correlate with the TTM stage of maintenance.

Precontemplation

The objective of consciousness raising is increasing awareness about the dangers and consequences of eating disordered behaviors. Educating individuals about alternative coping strategies and tips for managing times of stress and temptation would also fall into this category. Individuals may come to the conclusion that they display concerning eating habits in a variety of ways, perhaps through the comment of a close friend, information in a brochure, or a piece of popular media. The aim of this stage is to open the door for dialogue. Dramatic relief would then encourage anorexic, bulimic, and EDNOS patients to experience a range of emotions to elicit conversation about the function of their unhealthy behaviors, as well as, discussing the fears and anxieties of letting go. Examples of techniques that can move people emotionally include role-playing, sharing testimonies, artistic expression, and music therapy.

Environmental reevaluation would apply the cognitive technique indicative of self-reevaluation to the interpersonal context, such as assessing how the eating disorder has affected important others and the overall social climate. Siegel et al. (1997), offer advice for communicating with individuals at this phase in their recovery, suggesting some general guidelines to keep in mind: Do not blame or attack the individual with an eating disorder, for example, "*you* are ruining our relationship" or induce guilt with harsh statements like, "*you* are killing your father when *you* refuse to eat like this". Instead, it is

much more effective to reframe discussions around "I" statements that touch upon concerns and feelings surrounding the suspected problem. There is a big difference between saying "What is the matter with you? What kind of person eats all that food and then throws it up?" and "I've been worried about what I'm seeing in your behavior lately." Family interventions and couples counseling are frequently used to facilitate this type of reassessment.

Precontemplation	Role of Individual	Role of University	Role of Community
Consciousness raising	-Become more educated on the myriad negative consequences of disordered eating	-Post eating disorder warning signs at high risk locations around campus: recreation center, cafeteria, restrooms	-Host an Eating Disorder Awareness benefit or NEDA Walk -Run story in local newspaper -Invite guest speakers from the field
Dramatic relief	-Attend and utilize university and/or community resources	-Offer art therapy classes -Offer yoga classes	-Recruit eating disorder specialists to the area (therapists, dieticians) -Collaborate with local yoga studios
Environmental reevaluation	-Introspectively assess quality of social networks -Consider family or couples counseling when appropriate	-Ban Pro-Ana and Pro-Mia websites from server	-Become more sensitive to the stigma against mental illness

Figure 5.1 Precontemplation as Applied to an Effective Eating Disorder Treatment

Contemplation and Preparation

Self-reevaluation would involve utilizing cognitive assessments to reexamine self-image with and without the eating disorder, such as a mirror self-analysis workshop or

diagramming the pros and cons of living with the illness. At this point it is important to clearly differentiate between having an eating disorder and allowing the eating disorder to define sufferer identity. Journaling is one of the most widely used techniques at this stage of recovery. Bestselling author of Life Without Ed (2004), Jenni Schaefer, was made famous by her personification of "Ed" (as in eating disorder) in which she and her psychotherapist would diagram journal entries to illustrate the two distinct personalities involved in the eating disorder—Jenni and Ed.

> The first step in breaking free from Ed was learning how to distinguish between the two of us. I had to determine which thoughts came from Ed and which ones belonged to me…You will realize that Ed—not you—is the one who thinks you should binge and purge. You will find the part of yourself that wants to abandon those behaviors and be healthy. Ed wants you to binge and purge; you want to live (pg. 10).

Healthy role models, especially recovered anorexics and bulimics like Schaefer, can be a priceless asset to treatment at this phase.

Contemplation/Preparation	Role of Individual	Role of University	Role of Community
Self-reevaluation	-Utilize healthy outlets (journaling, yoga, therapy) to assess illness pros/cons	-Incorporate graduate mentors into program as healthy role models	-Support a health communication campaign conveying "beauty comes in all sizes"

Figure 5.2 Contemplation/Preparation Stages as Applied to an Effective Eating Disorder Treatment

Action

Although it may seem counterintuitive that the action stage is comprised of the fewest strategies, it could be argued that self-liberation is among the most difficult benchmarks to accomplish. Self-liberation could be described as harnessing the power of positivity in both the belief that change is possible and in the commitment to acting on

that belief. Support group environments can be paramount to enhancing this willpower, as similar stories and testimony of others serve to continually re-motivate individuals toward ongoing recovery. Siegel et al. (1997) point out that knowing what to say—and what not to say—can make all the difference at this point in the process. How to be most helpful and supportive to someone in treatment varies from individual to individual, but there needs to be an open line of communication. The frequency of that communication, as well as, the type of communication should be mutually decided upon proactively. To avoid stagnation or relapse, stories like that of the following patient should be evaded through clear communication expectations (Siegel et al. (1997)):

> One 24-year-old woman, Jacki, told us that she felt badly that her parents never asked how she was doing in therapy. It made her feel shameful about going, as if this were an embarrassment to everyone. Her parents, on the other hand, wanted to know how she was doing, but were afraid that if they asked Jacki would get angry. So Jacki and her parents silently misunderstood one another and uncomfortably walked on eggshells whenever they got together (p. 164)

Action	Role of Individual	Role of University	Role of Community
Self-liberation	-Make a personal commitment to recovery -Attend and participate in affiliate support group	-Accountability agreements between patient and mentor -Invite guest speakers -Apply for grants and funding	-Collaborate with local medical health professionals to manage and sustain a community support group

Figure 5.3 Action Stage as Applied to an Effective Eating Disorder Treatment

Maintenance

Counterconditioning refers to learning and implementing healthier behaviors as a substitute for eating disordered behaviors. Compiling a list of positive self-affirmations to post on the refrigerator and mirror or constructing a coping toolbox, an alternative strategy grab-bag, with suggestions like going for a walk, practicing yoga, and coloring,

are worthwhile techniques. Reinforcement management involves providing recognition and incentives for taking steps toward a healthier relationship with food. This could be an appropriate time to introduce a weight contract or a reward system for adherence to a meal plan and abstinence from the binge-purge cycle. In this way, there is increased probability that the healthier behaviors will be repeated.

Stimulus control would involve removing those cues that encourage maladaptive eating behaviors in combination with the addition of prompts for healthier alternatives. Simple measures like attending a support group, avoiding or limiting time spent at the gym or restructuring a class schedule to ensure time for lunch can support change and reduce the risk for relapse. Helping relationships would involve combining caring, trust, openness, and acceptance, as well as support for eating disorder recovery into daily life. This could be achieved through therapeutic alliances, buddy systems, on-call counseling, and field trips or social outings with a positive peer group that incorporate alternative coping skills.

Maintenance	Role of Individual	Role of University	Role of Community
Counterconditioning	-Consciously choose healthy alternative over eating disordered behavior	-Support field trip outings that encourage and facilitate recovery (pottery, cinema)	- Collaborate with local medical health professionals to manage and sustain a community support group
Helping relationships	-Become more open and willing to choose connection over isolation	-Provide 24/7 support hotline -Match patient with compatible graduate mentor -Incorporate mealtime mentor support	-Collaborate with individuals and university to build well-rounded support teams
Reinforcement management	-Reward and celebrate healthy behavior choices	-Offer Health Communication track -Offer classes on media criticism -Offer classes on healthy eating	-Incentivize healthy food choices (Farmer's Market vs. fast food, three meals a day)
Stimulus control	-Utilize positive self-affirmations	- Remove nutritional content labels from cafeterias -Remove scales from locker rooms -Remove controversial magazines (Cosmopolitan, Maxim) from bookstore	- Support a health communication campaign conveying "beauty comes in all sizes"

Figure 5.4 Maintenance Stage as Applied to an Effective Eating Disorder Treatment

Social liberation and its influence, although they do not fit cleanly within any of the TTM stages as the process through which change is most effectively achieved, should not be overlooked or discredited (see Appendix E). These actions include increasing social advocacy and educational initiatives to stamp out the stigma and misconceptions toward eating disorders. Policy and procedural changes could be made to help foster a

recovery-friendly community, such as removing nutrition labels from the cafeteria or inviting guest speakers to discuss the unattainable beauty standard endorsed by the media.

Chapter 6: Development of an Effective Treatment Program

Taking into account the shocking prevalence among young women 18-25, institutions of higher learning are in a unique position to spearhead a change in eating disorder recovery. Few other opportunities exist where access to this target population is as simple and plentiful as in the university setting. Despite the significant attention that drugs and alcohol receive on college campuses, no support is available to students who are recovering or suffering from an eating disorder. Because anorexia boasts the highest mortality rate of all mental illnesses and afflicts mainly young adults who are generally free of major health problems, it is a significant and disturbing health issue (Elliott, 2010). It is essential that the current method of treatment be tailored to the current demands of these illnesses. An innovative approach to eating disorder treatment will be one in which the value of communication in the recovery process is accentuated at every point in the program.

This process should begin with properly and adequately educating the student body, faculty, staff, and administration about the adverse effects that eating disorders can have on their health and the health of their community. Such activities could include, raising awareness regarding the long-term and irreparable consequences of these illnesses through campaigns, brochures, posters, or guest speakers and dispelling the myths surrounding these glorified conditions through similar means. Stories and testimonials could be run in both the local and university newspapers (see Figure 5.1). These efforts

could also spark major changes in local medical practices by preparing physicians and other prominent health care providers to recognize and treat eating disorders for the serious conditions that they are. This process is particularly relevant for campuses with affiliate medical schools. Once these conditions are a part of the social consciousness, more individuals will come forward with concerns, increasing the number of diagnoses and populating the proposed treatment program.

Once a diagnosis is made, through a variety of means such as self-reporting and peer referrals, the individual could be paired with a counselor and peer mentor at the university. Given the integral role of the peer mentor to this transitional treatment program, a thorough mentor-mentee matching process would be involved. This process would include determining basic compatibility, as well as, trying to honor demographic preferences. For example, an individual may feel more comfortable if their mentor is of the same sex and similar in age. These mentors would be responsible for running the campus support groups, (namely a support group for sufferers, a support group for loved ones, and a mealtime buddy system), directing their mentees toward campus and community resources like tutoring services during the stress of final exams, and maintaining an open line of communication. Priority would be given to those mentors who had either experienced or known someone with an eating disorder. Access to cafeteria and recreational center activity information suggesting the frequency and duration of visits would be worth organizing. If the treatment program could track whether or not an individual used a card swipe for a meal at any point during the day, they could potentially prevent an emergency situation from occurring, or at the very least, initiate a dialogue that may have not otherwise taken place.

A number of advantages distinct to an eating disorder treatment effort in partnership with an institution of higher learning make such collaboration worth exploring (see Figure 6.1). Not least among these benefits is the ability for those in treatment to continue working toward their degree without putting their graduation or career prospects on hold. Further, those seeking treatment can receive services without appearing to seek treatment. Such an approach taps into the relational component of the illness often overlooked by treatment efforts focused on weight gain and medication. This revolutionary approach would also bring great news to Appalachian Americans battling eating disorders, for whom premier treatment facilities like Rogers Memorial Hospital in Oconomowoc, Wisconsin and Remuda Ranch in Wickenburg, Arizona are not getting any closer.

Faults of Current Treatment	Benefits of Proposed Treatment
Medical facility	University
Focused on symptoms	Focused on interpersonal relationships
Limited ecological validity	Real life implementation
Geographical access to care	On-site location
Led by medical professionals	Led by peer mentors
Disruption in daily schedule	Can be balanced with school, work
Stigma associated with hospitalization	Membership is nondescript

Figure 6.1 Comparing and Contrasting Current Treatment with Proposed

University affiliated treatment programs could be a wildly successful alternative to the lab coats and blood tests that scare potential patients away from more traditional treatment options. "Offering support for 12-step meetings and other peer-led support services on campus sends a strong message from administration that students in recovery are recognized and valued within the campus community" (Perron et al, 2011, p. 8). Current treatment efforts are a disservice to those struggling with disordered eating. They

are uprooting individuals from support systems with the potential to do wonderful things for recovery—by virtue of their relational ties—and they are operating in an environment with limited resemblance to the outside world in which these individuals must someday reenter. Ultimately, the decision to get well must come from within, as not even the most supportive social network or theoretically sound treatment program will foster healing if an individual is indifferent to recovery. However, eating disorders cannot be beaten by an individual alone. Therefore, it is imperative that the larger system does whatever may be necessary to encourage and facilitate wellness.

Future Directions

The battle against eating disorders has only just begun and even the most effectively designed treatment operation will fall flat without the support from the larger community in which it is placed. Colleges are an ideal context for heightened support of these illnesses, so university personnel should apply for grants and federal funding to sustain such an initiative (see Figure 5.3). Incorporation of the *CDCynergy* tool created by the Centers for Disease Control and Prevention Office of Communication would be an excellent starting point. *CDCynergy* is a step-by-step guide to the development, implementation, and evaluation of health communications plans and health interventions. This program has become the gold standard for utilizing communication to combat public health concerns. Several strikingly successful studies have adopted the *CDCynergy* model including smoking cessation programs, school physical activity intervention and infant immunization initiatives.

Administrators and faculty should push for positive curriculum changes like adding a health communication track to communication studies departments and offering

classes on media criticism (see Figure 5.4). Even simple steps, like removing scales from locker rooms, would be supportive. Local businesses should team up with charities like Goodwill or the Salvation Army to sponsor Dress for Success—where clothes that once fit an eating disordered body can be donated and replaced with clothes that support a healthier body. Restaurants in the area could play a role in shaping a recovery-friendly culture by shifting the focus of the dining experience from concern over calories and ingredients to the importance of making healthy food choices. They could also provide the community with resources like healthy cooking classes and incentives for healthy food choices.

There is still much to be learned about gender differences in experiences with these illnesses. It would be interesting to note how eating disorders manifest themselves among men as compared with women, if at all. It is possible that men and women present different symptoms, consequences, or contributing factors. Men with eating disorders is a fascinating subject that should be investigated further, especially as it relates to hobbies and occupations like jockeying and wrestling that are male dominated, yet highly weight-focused. Future research should focus on the role of the internet on the maintenance and termination of anorexia, bulimia, and binge eating disorder. Given what is known about the significance of social networks as they relate to eating disorders, it would be particularly interesting to study these dynamics through a well-established social networking website.

More needs to be done to better understand the role of interpersonal relationships as a contributing factor to these disorders, especially, the relatively unexplored domain of student-teacher and sibling relationships. Communication strategies for loved ones, and

even medical professionals, would prove invaluable. Too often, the fear of saying the wrong thing to someone struggling with an eating disorder keeps anything from being said at all. It is time to talk about it.

Appendix A: Location of Treatment Centers from Marshall University

1. The Center for Balanced Living: Worthington, Ohio

   148 miles / 2 hours, 56 minutes

2. Lindner Center of HOPE: Mason, Ohio
   153 miles / 3 hours, 8 minutes

3. Cleveland Center for Eating Disorders: Beachwood, Ohio
   267 miles / 4 hours, 41 minutes

4. Selah House: Anderson, Indiana
   268 miles / 5 hours, 6 minutes

5. River Centre Clinic: Sylvania, Ohio
   284 miles / 5 hours, 18 minutes

6. The Renfrew Center of North Carolina: Charlotte, North Carolina
   321 miles / 5 hours, 35 minutes

7. The Renfrew Center of Tennessee: Brentwood, Tennessee
   356 miles / 5 hours, 49 minutes

Note: All travel information was found using Google Maps directions from the starting address: One John Marshall Drive Huntington, West Virginia 25755

Appendix B: River Centre Clinic Adult Partial Hospitalization Daily Schedule Example

11:30 a.m.: Weigh-in and lunch preparation

12:00 p.m.: Supervised meal

1:00 p.m.: Group (either psycho-educational or psychotherapy)

2:30 p.m.: Break

2:45 p.m.: Supervised snack

3:15 p.m.: Group (either psycho-educational or psychotherapy)

5:00 p.m.: Dinner preparation and supervised meal

6:00 p.m.: Post-dinner wrap-up group and activities

6:30 p.m.: Program ends (participants move to independent living areas)

Appendix C: The Transtheoretical Model of Change—Description of Key Constructs

Constructs	Description
Consciousness raising	Finding and learning new facts, ideas, and tips that support the new behavior change
Dramatic relief	Experiencing the negative emotions (fear, anxiety, worry) that go along with unhealthy behavioral risks
Self-reevaluation	Realizing that the behavior change is an important part of one's identity as a person
Environmental reevaluation	Realizing the negative impact of the unhealthy behavior or the positive impact of the healthy behavior on one's proximal social and/or physical environment
Self-liberation	Making a firm commitment to change
Helping relationships	Seeking and using social support for the healthy behavior change
Counterconditioning	Substitution of healthier alternative behaviors and cognitions for the unhealthy behavior
Reinforcement management	Increasing the rewards for the positive behavior change and decreasing the rewards of the unhealthy behavior
Stimulus control	Removing reminders or cues to engage in the unhealthy behavior and adding cues or reminders to engage in the healthy behavior
Social liberation	Realizing that the social norms are changing in the direction of supporting the healthy behavior change

Appendix D: The Transtheoretical Model of Change—Application of Communication to Collaborative Approach

Phase	Role of Communication
Consciousness raising	Increasing health literacy through health campaigns, testimonials, posters
Dramatic relief	Opening the door for communication, Capturing raw, subconscious thoughts
Self-reevaluation	Provoking insightful, introspective thinking, Shaping identity separate from illness
Environmental reevaluation	Incorporating dialogue from loved ones and peers, Acknowledging progress
Self-liberation	Creating a level of accountability in the recovery process
Helping relationships	Reaffirming recovery as the right decision, Offering encouragement and support
Counterconditioning	Making healthier behavior alternatives accessible and well-known
Reinforcement management	Reiterating the benefits of healthier behavior alternatives, Praising success
Stimulus control	Censoring environment for triggers, Utilizing recovery resources like books, affirmations
Social liberation	Embracing recovery, Reinvesting energy into the process as support for others

Appendix E: The Transtheoretical Model of Change—Processes of Change That Mediate Progression Between the Stages of Change

	Precontemplation	Contemplation	Preparation	Action	Maintenance
Processes	*Consciousness raising* Dramatic relief *Environmental reevaluation*				
		Self-reevaluation			
				Self-liberation	
					Counter-conditioning Helping relationships *Reinforcement management* Stimulus control

Note: Social liberation was omitted due to its unclear relationship to the stages.

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