DISSERTATION

AN ANALYSIS OF SYMPTOM REDUCTION IN A SAMPLE OF ADULTS PARTICIPATING IN AN INTENSIVE OUTPATIENT EATING DISORDER TREATMENT PROGRAM

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ABSTRACT

AN ANALYSIS OF SYMPTOM REDUCTION IN A SAMPLE OF ADULTS PARTICIPATING IN AN INTENSIVE OUTPATIENT EATING DISORDER TREATMENT PROGRAM

There is a need for research evaluating the effectiveness of current eating disorder treatment programs (Sullivan, 2002; Wilson, Grilo, & Vitousen, 2007). This study aimed to address this issue through analyzing data obtained from an adult population attending a group-based intensive outpatient treatment program for disordered eating at the La Luna Center for Eating Disorders in Northern Colorado. Data assessing eating disorder-related symptomatology was collected from program participants at the beginning and end of treatment. Program graduates were also provided with a survey asking for feedback about components of the program that were considered helpful to their recovery. Quantitative analyses demonstrated a significant degree of symptom reduction experienced by participants after program completion, and qualitative analyses identified components of the program participants found to be particularly helpful to their recovery. Results of this study provided preliminary support for a theoretically integrated group-based treatment program for eating disorders and highlighted both personal and program factors that may positively impact recovery.

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Introduction

The prevalence rates of eating disorders in the United States indicate that over 13 million Americans are currently struggling with a diagnosable eating disorder (Garner, 2002; Hudson, Hiripi, Pope, & Kessler, 2007). In addition, the morbidity, mortality and recidivism rates associated with eating disorders are extremely high and the presence of programs demonstrating empirically supported treatment for eating disorders is sparse (Sullivan, 2002; Wilson, Grilo, & Vitousen, 2007). Thus, the need for research evaluating the effectiveness of current eating disorder treatment programs is clear. This study aims to address this issue through analyzing data obtained from an adult client population attending a group based intensive outpatient treatment program for disordered eating at the La Luna Center for Eating Disorders in Northern Colorado.

Informal analysis of verbal and written feedback from the La Luna Center's graduates initially provided anecdotal evidence of the success and perceived benefits of the La Luna Center Treatment program, with many clients reporting recovery from disordered eating behaviors. However, no empirical research had been conducted which more accurately and quantitatively assessed treatment outcomes. This study sought to provide a formal analysis of the clients' responses to quantitative measures of eating disorder related symptomatology before and after participation in treatment. It was also hoped that the analysis of qualitative client feedback regarding the program's components would identify themes of important recovery skills, thus highlighting client interpretations of effective program components.

La Luna Center Program

The La Luna Center has been operating in Colorado since November 2005. There are currently two centers offering eating disorder treatment: the original center is in Boulder, CO and there is also one in Fort Collins, CO that opened in March of 2008. Both treatment centers offer an intensive outpatient treatment program (IOP) for men and women struggling with anorexia nervosa, bulimia nervosa, and related eating disorders. To date, the significant majority of program graduates have been women.

La Luna Center views eating disorders as complex, with psychological, emotional, nutritional, physiological, and cultural components. As a result, the center emphasizes the need for a multi-disciplinary collaborative treatment team consisting of therapists, psychologists and nutritionists, while also encouraging and coordinating treatment with psychiatrists, physicians and other medical and mental health professionals. The IOP also ascribes to an integrated therapeutic treatment approach that is informed by empirically supported techniques from a number of different theoretical orientations. The combination of these techniques is designed to address the psychological, physical and nutritional aspects of disordered eating. Specifically, the treatment approach integrates dialectical behavior therapy skills, cognitive behavioral techniques, interpersonal process techniques, and a focus on intuitive eating all grounded in the overarching umbrella of feminist theory.

The IOP offers clients a level of treatment that is sustainable for individuals struggling with disordered eating and other co-existing conditions and diagnoses. The number of groups that each client attends is fixed, with the whole program designed to last for 50 sessions over five-months. However, the exact length of treatment can vary

based on client progress, individual needs, insurance coverage, and attendance. The program is uniquely appropriate for clients that are capable of addressing their disordered eating behaviors in a safe, supportive, and intimate environment, while also maintaining outside daily activities and living on their own. Therefore, this treatment program is designed as an alternative to simple outpatient therapy, more intensive day treatment, residential treatment, or inpatient settings.

While treatment is presented as the client's choice, there are some specific criteria in place that need to be met in order for the client to be admitted to the IOP. In order for the client to be deemed appropriate for this level of treatment, they must present with a diagnosable eating disorder, a Global Assessment of Functioning (GAF) score of 55 or below, a history of either inpatient or outpatient treatment and/or a likelihood of deterioration in the absence of treatment, and be deemed medically stable by a physician prior to acceptance into the program. The client also cannot be suicidal or experiencing substance dependence. It is also important that the client demonstrate, to the satisfaction of the intake psychologist, a sincere interest in treatment, and the capacity to participate appropriately in the group activities and within the group setting.

Clients that are accepted into the IOP are initially asked to complete an Eating Disorder Inventory - 3 (EDI-3) (Garner, 2004). This instrument is provided in order to obtain an initial assessment of the client's eating disorder related symptomatology and to help provide the treatment team with information regarding the client's functioning across different psychological and behavioral aspects.

After completing treatment, clients are once again asked to complete the EDI-3 (Garner, 2004) in addition to an anonymous program feedback form that allows for the

client to provide written feedback to the treatment staff. Upon nearing the completion of treatment, clients engage in discharge planning with the treatment team, and additional preparations are made for a meaningful and appropriate closure with the other group members. The La Luna Center staff also prepares for the client's graduation by connecting with all of the client's treatment providers in order to solicit their input regarding discharge planning and continued care after the client's exit from the treatment program.

Clients who complete treatment generally report plans for continued outpatient care for a period of time after their discharge. They are also encouraged to continue with low-cost aftercare support through the La Luna Center's aftercare group. Although an atypical occurrence, some clients may complete the IOP and elect to attend alternative intensive treatment programs providing additional support to their recovery process. Furthermore, other members participating in the IOP may require inpatient hospitalization throughout the program. Although uncommon, it is often a result of a decrease in medical stability or an increase in suicidality. In such cases, appropriate referrals and transition assistance are provided.

Literature Review

Eating Disorders

Chronic dieting and restrained eating behaviors have become common experiences for both women and men in the United States. Current estimates report that the prevalence rates of anorexia nervosa are at 0.9%, bulimia nervosa at 1.5% and binge eating disorder at 3.5% among American women. Among American men, prevalence is lower with anorexia nervosa occurring at a rate of 0.3%, bulimia nervosa at a rate of

0.5%, and binge eating disorder at 2.0%. Although these rates appear low, within the United States alone, well over 13 million women and men are currently struggling with a diagnosable eating disorder (Garner, 2002; Hudson et al., 2007). Additionally, millions more are likely struggling with sub-threshold eating disordered behaviors (Fairburn & Beglin, 1990; Hoek, 2002; Machado et al. 2007).

While men are vulnerable to pathological eating, eating disturbances are most prominent in adolescent and college aged women, with the peak onset of eating disorders between the ages of 16 and 24 (Garner, 2004; Taylor et al., 2006; Wakeling, 1996). Among the general college population, the clinically diagnosable eating disorder rates have been reported to range from 1.0% to 5.0% (Hoek & van Hoeken, 2003; Kreipe & Mou, 2000) with women constituting the majority, over 90% to 95%, of reported cases of anorexia nervosa and bulimia nervosa (Connors & Johnson, 1987; Crisp & Burns, 1983; Fairburn & Beglin, 1990; Lucas et al., 1991). The pervasiveness of these disorders is cause for great concern given that they are not only commonly underreported (Wakeling, 1996) and therefore undertreated (Fairburn & Beglin; Whitaker et al., 1990), but the prevalence rates of eating disorders have been rising over the past several decades (Hoek, 2002; Keel & Klump, 2003; Lucas, Crowson, O'Fallon & Melton, 1999; Wakeling, 1996). It is estimated that, in their lifetime, 0.5 % to 3.7% of all women will suffer from anorexia nervosa, and 1.1% to 4.2% will suffer from bulimia nervosa (APA, 2000).

Even though death from bulimia nervosa has been reportedly low, with rates ranging from 0.03% to 3.1% (Keel & Mitchell, 1997; Patton, 1988), the mortality rate for individuals suffering from anorexia nervosa is much higher, 5.9%, putting this group at a substantially greater risk for death than both the general and psychiatric population

(Sullivan, 1995). Unfortunately, recidivism rates are also concerning, with research indicating that only 50% - 70% of individuals with clinically diagnosable eating disorders will demonstrate full recovery after treatment, and that 10% will continue to struggle with persistent eating disorders throughout their lifetime (Sullivan, 2002). Despite the pervasiveness and life threatening nature of these disorders, the presence of treatment programs demonstrating empirically supported treatment of eating disorders is sparse (Sullivan, 2002; Wilson, Grilo & Vitousen, 2007). Thus, the need for research evaluating the effectiveness of current eating disorder treatment programs is clear.

Etiology

Eating disorders have a complex etiology, with multiple factors that contribute to their development and maintenance. These factors are biological, genetic, familial, cultural, social, environmental, and psychological in nature (Ogden, 2003). In understanding the origins of eating disorders within individuals, it is often important to consider each of these factors in both isolation and in interaction with one other.

Genetic-epidemiological research has shown that eating disorders tend to run in families, highlighting the significance of genetic influence on the development of eating pathology (Ogden, 2003). Given the difficulty in separating nature from nurture within family systems, studies using monozygotic and dizygotic twin pairs have been conducted in order to further extricate the biological influence from the environmental components of transmission within family members. These studies have found heritability rates ranging from 50% to 90% for anorexia nervosa and 50% for bulimia nervosa (Bulik et al., 2000; Holland et al., 1984; Kendler et al., 1991). This research has supported the existence of a genetic predisposition for eating disorders that may become manifest under

select environmental conditions. However, the nature of this predisposition is still unclear, with hypotheses centering on possible personality types, basic physiological differences between individuals, or a general vulnerability to psychiatric illness (Holland et al., 1984).

Due to the significant comorbidity of psychiatric disorders and eating disorders within clinical samples, researchers have also utilized family studies to better understand heritability and genetic factors across disorders. Specifically, researchers have investigated the presence of major affective disorders, obsessive compulsive disorders, personality disorders, and substance use disorders in first degree biological relatives of individuals diagnosed with anorexia nervosa and bulimia nervosa (Lilenfeld et al., 1998; Lilenfeld et al., 2000; Strober et al. 2000). While these studies found that relatives of individuals with anorexia nervosa and bulimia nervosa had an increased risk of sub-threshold eating disorders, major depressive disorder, substance use disorders and obsessive compulsive disorder, they were unable to directly support a clear shared mode of familial transmission. While the mechanism of transmission remains unclear, these studies have nevertheless provided support for the existence of genetic predispositions for eating related disorders. They have also provided strong evidence supporting the increased likelihood of the presence of eating disorders within families that have biological vulnerabilities for general psychiatric disorders.

There are several common significant environmental factors that are present within families of individuals struggling with eating disorders. Minuchin et al. (1987) observed 60 families and identified dysfunctional boundary, control and conflict patterns that were similar across the majority of the families studied. From these identified styles

of interaction, it was concluded that four characteristics generally describe families with an eating disordered child: overinvolvement, overprotectiveness, rigidity and lack of conflict resolution. Other researchers conducted similar studies and found comparable patterns of family interaction style, in addition to difficulties with regard to cohesiveness amongst family members, inability to express emotion, lack of emphasis on assertive and independent behavior, and general disorganization within the family system (Johnson & Flach, 1985; Rowa, Kerig, & Geller, 2001). As Minuchin et al. (1987) discussed, when combined, these factors create an environment in which a child may struggle to individuate, feel autonomous, and develop a sense of safety and self-efficacy within the world. As a result, these individuals may tend to perceive the world as unsafe, people as unreliable, and their own actions as ineffective, and thus turn to an eating disorder for a sense of safety and control.

On a larger scale, women are exposed to societal factors that may also place them at greater risk than men for the development of eating disorders. It is generally accepted that popular western culture has a substantial influence on this process (World Health Organization [WHO], 2005). In fact, studies show that when western cultural ideals and attitudes are introduced to diverse, non-western societies and individuals, eating disorder rates increase to a level comparable to that of the original western culture (Becker, Burwell, Gilman, Herzog, & Hamburg, 2002; Keel & Klump, 2003; Miller & Pumariega, 2001; Mumford & Whitehouse, 1988; Prince, 1983).

In order to understand and explain western culture's impact on women, Ogden (2003) discussed the significant influence that messages within society have on women's sense of identity and self-worth. More specifically, Maine & Kelly (2005) explored

western cultural pressures for women to integrate conflicting messages around what their role should be within their personal and professional lives. Specifically, they discussed pressures around the demand for women to excel within both the family and career setting, suggesting that eating disordered behaviors are an attempt to cope with internal identity conflicts that may arise as a result of changing values and expectations as they navigate between home and work roles.

Through objectification theory, Fredrickson and Roberts (1997) also highlighted the impact of cultural messages on women's identity formation, discussing how western media, values, and general socialization, impact the way that women perceive and evaluate themselves. Specifically, these authors emphasized how women are continuously bombarded with society's beauty and thinness ideals, and how the repetitive exposure to these messages may cause women to begin to view their own physical appearance through an external, third person perspective. It is thought that this approach to self-evaluation based on physical traits as perceived by outsiders can effectively impact the beliefs that an individual holds about the importance of their physical appearance, and can have the effect of increasing an individual's level of self consciousness, body anxiety, and body shame. This shift in self-perception and self-evaluation may then lead to further negative psychological consequences, including depression, lowered self-esteem, and eating pathology (Fredrickson & Roberts, 1997; Peterson, Grippo, & Tantleff-Dunn, 2008).

In addition to biological and social factors, individual psychological factors are also considered influential in the development of eating disorders. Clinicians, researchers and theorists have long emphasized the relationship between personality traits and the

development and maintenance of eating pathology (Gartner et al., 1989; Johnson, Tobin & Enright, 1989; Wonderlich et al., 1990). Specifically, this research has demonstrated that individuals with anorexia nervosa and bulimia nervosa often struggle with pervasive patterns of perfectionism, harm avoidance, neuroticism, impulsivity, negative emotionality, and obsessive-compulsive behaviors.

Furthermore, studies have established a significant correlation between eating disorders and personality disorders, finding comorbidity rates ranging from 27% to 93%, with variations across samples accounted for by differences between sample settings (Vitousek & Manke, 1994). Bornstein (2001) conducted a meta-analysis in order to more clearly delineate the prevalence between types of personality disorders and the presentation of either anorexia nervosa or bulimia nervosa. Results from this study indicated significant correlations between personality disorders and both anorexia nervosa and bulimia nervosa in both inpatient and outpatient female samples. Personality disorders most commonly associated with anorexia nervosa were avoidant (base rate of 53%), dependent (base rate of 37%), obsessive compulsive (base rate of 33%), and borderline (base rate of 29%). Bulimia nervosa also had significant correlations with borderline (base rate of 31%), dependent (base rate of 31%) and avoidant personality disorders (base rate of 30%), but was less commonly associated with obsessive compulsive personality disorder (base rate of 14%) (Bornstein, 2001).

While the association between personality features and disordered eating behaviors implicate personality-based predispositions for the development of eating disorders, this relationship should be interpreted with caution. Similar to the earlier discussion around the impact of genetic and social factors on eating disorder

development, discussion of the relationship between personality features and eating disorders should also acknowledge that while specific personality traits may be commonly present in individuals with eating disorders, they are neither necessary nor sufficient for the direct development of eating pathology. Given the current literature's inability to firmly establish this clear pattern of causality, the directionality of the relationship between personality factors and eating disorders has yet to be solidly established (Wonderlich & Mitchell, 1997). Due to the multifaceted nature of eating disorders, it is no surprise that clinicians and researchers have approached their treatment from a number of differing theoretical orientations.

Eating Disorder Treatment

The high recidivism, morbidity and mortality rates associated with eating disorders demand the exploration and utilization of treatment techniques across disciplines. As a result, current treatment for eating pathology typically involves a multi-disciplinary team approach that includes psychotherapy (Grillo & Mitchell; Thompson-Brenner, Glass & Weston, 2003; Yanger, 2004), nutrition therapy (Reiff & Reiff, 1992), and psychotropic medication (Casper, 2002) in addition to other treatment approaches.

Psychotherapy has been expressly indicated as an effective form of treatment for eating disorders (Grilo & Mitchell, 2010; Yager, 1994). However, the presence of literature empirically supporting treatment methodology across eating disorders is mixed, with more empirical validation for the treatment of bulimia nervosa than for anorexia nervosa and binge eating disorder (Grill & Mitchell, 2010).

Literature has provided empirical support for several approaches to the treatment of bulimia nervosa, with strong support for cognitive behavioral therapy (Grillo &

Mitchell, 2010; Walsh, Fairburn, Mickley, Sysco & Parides, 2004) and interpersonal psychotherapy (Agras, Walsh, Fairburn, Wilson & Kraemer, 2000; Nevonen & Broberg, 2006), and modest support for family-based therapy approaches in the treatment of adolescents (Le Grange et al., 2007; Schmidt et al., 2007).

In comparison to bulimia nervosa, fewer evidence-based treatments exist for anorexia nervosa (Grillo & Mitchell, 2010). Likewise, evidence supporting pharmacological treatments is also less conclusive (Walsh, 2002). However, the literature does currently demonstrate modest support for cognitive behavioral therapy (McIntosh et al., 2005; Halmi et al. 2005) and strong support for family-based treatment of adolescents (Eisler et al., 2000; Lock & Agras, 2006).

Binge eating disorder, while not currently recognized as an official and independent eating disorder in the DSM-IV-TR (APA, 2000), has received a significant amount of attention within the eating disorder treatment literature. Although there are a large number of studies addressing the treatment of binge eating disorder, the lack of clear diagnostic criteria and access to treatment populations has limited the scope of research evaluating the efficacy of relevant treatment modalities. Even so, there is currently strong evidence supporting the use of cognitive behavioral therapy (Grillo, Masheb & Wilson, 2005; Wilfley et al., 2002) and modest support for the use of interpersonal psychotherapy (Wilfley et al., 2002) for the treatment and resolution of binge eating behaviors and related symptomatology.

Clinicians treating the broader spectrum of disordered eating have found the current research to be limited (Bachar et al., 1999). Studies on morbidity and mortality rates also indicate weaknesses within the current literature's ability to address concerns

around treatment strength and long-term effectiveness. As a result, alternative approaches from various theoretical perspectives continue to arise (Grillo & Mitchell, 2010; Thompson-Brenner, Glass, & Weston, 2003).

Given that new treatment models from different theoretical perspectives are continuing to develop, it is important to establish a basic understanding of the commonly held theoretical perspectives regarding the etiology and treatment of eating pathology. Provided below is a brief outline of the conceptualization of eating disorders from some of the major theoretical perspectives, as well as a discussion of the relevant treatment techniques. Particular attention will be paid to the multidimensional, multi-disciplinary and group-based treatments that are representative of the theoretically integrated intensive outpatient treatment program being evaluated in this study.

Feminist Therapy

Feminist theory addresses eating disorder treatment from a perspective that emphasizes the core values of feminism. As Brown (1994) discussed, these values should inform therapy first and foremost by encouraging adherence to feminist political philosophy. This means that therapy should be grounded in a multicultural approach that considers the influence of broader socio-cultural contexts, the political environment, power dynamics, gender, spirituality, sexuality, and diversity within an individual's social domain. By emphasizing the uniqueness of each client and highlighting the need to tailor therapy to each individual, Brown (1994) demonstrates that the major differences between feminist approaches to treatment and other current treatment practices.

As Wooley (1995) discussed, feminist treatment models tend to address eating disorders through a broader spectrum approach, rather than relying upon a specific

intervention or predetermined approach for all clients. The strength of this model lies in the ability to respect the individuality of each client, while also allowing for a treatment program that addresses major etiological features common across eating disorders. This egalitarian approach to therapy, directed toward the installation of hope and the fostering of the client's overall sense of self-efficacy, is critical to feminist intervention. Moreover, feminist-influenced therapy emphasizes the importance of multicultural awareness, effective interpersonal relationships, emotional expression, and client empowerment.

From a feminist perspective, eating disorders are conceptualized as an individual's response to their experienced role in the world and their reaction to pressures around cultural and social values of thinness and appearance (Fredrickson & Roberts, 1997). Essential to feminist theory is the premise that social and cultural context contribute to an individual's experienced distress. In understanding more specific etiological components of eating disorders, feminist theorists cite the influence of sex differences in power and access to opportunities, pressures to ascribe to expected gender roles, and the culture's differential regard for feminine versus masculine developmental paths and personal qualities (Stein et al., 2001).

While there are a significant number of strengths in the utilization of a feminist approach to the treatment of eating disorders, its broad-based nature and lack of specific empirically supported techniques makes it a difficult treatment approach to empirically measure. While other approaches to treatment, such as cognitive behavioral therapy and interpersonal process therapy are more concrete and have garnered stronger empirical evidence for the treatment of eating disorders, client recidivism rates when using these

approaches remain high (Agras et al., 2000; Grillo & Mitchell, 2010; Nevonen & Broberg, 2006; Walsh et al., 2004). In order to address individual differences in responsiveness to these alternative forms of treatment, clinicians and researchers have recognized the need to integrate feminist based approaches with more the solidly established techniques. It is hoped that, when used in conjunction with one another, the needs of individual clients may be better met and overall recovery rates may improve (Zerbe, 1996).

Cognitive Behavioral Therapy

Cognitive behavioral therapy (CBT) addresses eating disorder treatment from a perspective that emphasizes the impact of thoughts on emotions and behaviors as they relate to food and self-image (Fairburn, 2002). According to Fairburn (2002), it is believed that individuals possess a distorted perception of reality that limits their ability to establish a solid sense of self-worth based on factors other than eating, shape and weight. It is believed that these distorted thoughts about the self interact with social pressures and personality features in order to bring about an experience of low self-esteem and other negative affect. Further, both the distorted self-perceptions and negative affect influence behaviors around eating, promoting unhealthy food-related behaviors. Outcomes from this altered relationship with food then reinforce the distorted thoughts and negative emotions, creating a pattern that is cyclical in nature (Fairburn, 2002).

Vitousek (2002) further discussed different levels of reinforcement that may impact the maintenance of eating disorders. On a broader social level, individuals with eating disorders are reinforced by positive comments and visual stimuli that are presented

as a response to their weight loss. These reinforcing statements are often received from external sources (e.g. peers, media, family) and are interpreted through the warped lens of relevant cognitive distortions. On a psychological level, individuals are reinforced by a sense of specialness, moral certitude, sense of control, or competitiveness that might be associated with the physical changes resulting from the eating disorder behaviors. Other researchers have highlighted the impact of chemical and structural changes that occur on a more physiological level as a response to long standing binge/purge or restricting behaviors (Halmi, 2002).

With regard to treatment, goals of the CBT approach are generally aimed at providing clients with information about their disorder, addressing behaviors related to eating, and changing cognitive processes that may maintain disordered eating patterns. This method of treatment has been manualized and is divided into three different stages that are each geared toward achieving specific goals related to eating disorder-centered thoughts and behaviors (Apple & Agras, 1997).

As outlined by Apple & Agras (1997), the first stage of treatment involves orienting the client to the nature of their disorder and the process of treatment. Within this stage, the client is provided background on the theoretical underpinnings and major goals of CBT as they apply to disordered eating. They are also provided with information about their disorder through the use of didactic teachings or psychoeducational materials, in hopes of dispelling any misconceptions that they might hold regarding the nature of their disorder. During this phase the behavioral aspects of eating are addressed, in hopes of facilitating the client's ability to adopt "normalized" and healthy eating behaviors.

According to Apple & Agras (1997), during the second phase of treatment, therapists continue to focus on regular eating and other behaviors related to weight and shape, such as self-checking and weighing. Therapists will also begin addressing cognitive aspects of the eating disorder by encouraging the exploration and challenging of distorted self-perceptions and unhelpful ways of thinking. While in the second phase of treatment, clients work towards restructuring their thoughts, addressing the impact that thoughts have on emotions, and gaining awareness of triggers for disordered eating behaviors.

As Apple & Agras (1997) note, in the final phase of treatment, clients work to set realistic future expectations for themselves and to begin setting plans for maintaining the progress that they have made in treatment. As therapy comes to a close, therapists will often discuss relapse prevention, methods for dealing with future setbacks, and reactions to termination of therapy.

CBT currently is, and has been, the leading evidence-based treatment for eating disorders and is widely accepted as the treatment of choice for bulimia nervosa and binge eating disorder (Agras et al., 2000; Vitousek, 2002; Walsh et al., 2004). According to Vitousek (2002), evidence has also indicated moderate success with anorexia nervosa, but study results have been significantly impacted by high participant dropout rates. The effective mechanisms of changes are also current topics of study, with researchers emphasizing the importance of behavioral interventions aimed at disrupting the cyclical pattern of the eating disorder and regulating eating. Although some studies report high recidivism rates across eating disorders, CBT studies focused on the treatment of bulimia

nervosa have demonstrated a significant decrease in behaviors that is generally maintained over a 6 to 12 month follow up period (Vitousek, 2002).

Dialectical Behavioral Therapy

Dialectical behavioral therapy (DBT) is a comprehensive treatment strategy that was originally designed by Linehan (1993) to treat borderline personality disorder, self injurious behaviors and suicidality. According to Linehan (1993), DBT is originally based on the emphasis on the pathological interaction between biological predispositions, emotional dysregulation, and invalidating environmental conditions. This approach provided clinicians with a comprehensive conceptualization of complex and behaviorally-based psychological disorders with etiological components spanning different domains. Given this approach's effective interpretation of complex psychopathology, it has more recently been used in the conceptualization of other severe psychological disorders, including eating disorders (McCabe, LaVia, & Marcus, 2004).

While DBT techniques adhere closely to those of CBT, DBT transcends the limitations of traditional CBT in order to intentionally address emotional dysregulation through the incorporation of eastern philosophy and Buddhist meditative practices. According to McCabe et al. (2004), DBT encourages clients to approach painful emotions from a stance of acceptance and change, a goal which is accomplished through teaching clients more effective coping skills within four major domains: mindfulness, interpersonal effectiveness, emotional regulation, and distress tolerance. This is all accomplished within the framework of dialectical philosophy focused on interpreting events from a holistic worldview that emphasizes balance and the interrelatedness of life events.

Due to DBT's emphasis on the importance of emotional regulation and development of effective coping mechanisms, this form of treatment has become increasingly incorporated into modern eating disorder treatment (McCabe et al., 2004). As Safe et al. (2001) discuss, DBT techniques can be specifically employed in order to address the impulsive behaviors, emotional dysregulation, comorbid personality disorders, suicidality, and feelings of instability that are characteristic of clients struggling with severe eating pathology. More specifically, DBT skills are used to teach clients how to utilize self-awareness in order to identify triggers associated with disordered eating, and to respond to those triggers through the use of healthier and more effective coping tools. Appropriate utilization of these skills can be taught throughout the process of therapy and repeatedly practiced with clients while in group and individual sessions (Safer et al., 2001).

While these skills are regularly taught in order to encourage clients to more effectively respond to and manage life stressors, clients can also use skills proactively, and draw upon them as they approach challenging recovery goals. For example, these skills can be used as a guide through the practice of mindful eating and increased emotional connection. They are also effective in helping to combat guilt, shame and other self-defeating emotions that commonly accompany disordered eating behaviors. The difficult tasks involved with recovery are often more easily accomplished as a result of DBT's encouragement to recognize and accept difficult feelings without judging them as "good" or "bad." This approach is also effective in altering the interpretation of relapse and behavioral setbacks that are common throughout the recovery process (McCabe et al., 2004; Safer et al., 2001).

An additional strength of DBT is its effectiveness within both individual and group treatment of eating disorders. Recent studies have provided empirical support for its use in the treatment of both bulimia nervosa and binge eating disorder, with findings reporting a significant reduction in eating disordered behaviors (Safer, Telch, & Agras, 2001; Telch, Agras & Linehan, 2000). Although it has been found to significantly improve eating disorder symptomatology, the labor-intensive nature of traditional DBT limits its availability to clients; some have suggested that DBT may be more appropriate for use in an adaptive form or as a last resort after other shorter-term treatments have failed. However, if the time constraints of this approach can be adequately addressed through the empirical validation of an adapted format, it is likely that DBT may become a widespread approach to treatment of eating disorders. Further research into the effectiveness of DBT is warranted (Safer et al., 2001).

Interpersonal Process Therapy

Interpersonal Process Therapy (IPT) is a present-oriented, short-term psychotherapy that addresses eating disorder treatment from a perspective that emphasizes the impact of interpersonal difficulties within an individual's life (Tantliff-Dunn, Gokee-LaRose & Peterson, 2004). According to Fairburn (2002), it was originally developed for the treatment of depression and was designed to help identify and address interpersonal problems that may contribute to heightened levels of client distress. However, IPT has been strongly connected to eating disorders due to its effectiveness at addressing the comorbid symptomatology commonly associated with eating disorders, such as negative affect, feelings of ineffectiveness within relationships, decreased self-esteem and poor social adjustment.

Fairburn (2002) explained the theory behind IPT as it relates to eating disorders by asserting that the eating disorder is both a result of, and regularly maintained by, ineffective interpersonal relationships that may have influenced self-esteem, self-efficacy, adjustment, and negative affect. Therefore, IPT techniques often focus directly on the improvement of interpersonal functioning, self-esteem, and negative affect in hopes that resolution of these difficulties will result in a decrease of eating disorder symptomatology. This approach considers the eating disorder to be a symptom of underlying concerns within interpersonal relationships, and while this connection is clearly established at the beginning of treatment in traditional IPT, it may often be only implied thereafter. As a result, when an eating disorder is treated through a traditional IPT approach, it is possible that the actual symptoms of the eating disorder may not be directly addressed for the majority of treatment (Fairburn, 2002).

As with cognitive behavioral therapy, traditional IPT therapy is separated into three different phases (Fairburn, 2002). As Fairburn (2002) outlines, the initial phase of treatment serves as an introduction to the process of therapy and focuses on the identification of specific interpersonal problem areas currently affecting the client. Interpersonal difficulties are discussed and categorized into one of four domains: difficulty with role disputes, difficulty with role transitions, interpersonal deficits and unresolved grief. After the client's concerns have been identified and categorized, the triggers to disordered eating behaviors are discussed as they relate to each of these four domains, and then the major areas of focus for the remainder of treatment are established (Fairburn, 2002).

According to Fairburn (2002), in the second phase of treatment the therapist assists the client in exploring each of the chosen target domains, while encouraging the client to take the lead in facilitating their own change. The therapist's role mainly involves keeping the client motivated and focused through the use of non-directive, but supportive, encouragement. In this phase of treatment it is the therapist's responsibility to play an active role in providing a safe, but unstructured setting for the client to openly explore their concerns and discover their own potential solutions. While there is generally very little structure to the sessions, therapists do facilitate client growth through the utilization of a few specific techniques. For example, therapists may provide their perspective of the client's communication style, encourage the use of role playing or even provide some guidance in problem solving strategies (Fairburn, 2002).

After the client has worked to address each of the initial focus areas, they will enter into the final phase of treatment. In outlining this phase, Fairburn (2002), highlighted the shift in the focus of sessions, with a new emphasis placed on strategies to ensure the maintenance of interpersonal gains. The therapist also facilitates a discussion around relapse prevention and prepares the client for the termination of therapy. In this phase, therapists may provide the client with feedback around specific progress made, goals that were achieved, continued areas of difficulty and guidance for areas of future growth (Fairburn, 2002).

Although CBT is considered the "gold standard" of empirically supported treatment for eating disorders, research has demonstrated IPT's efficacy in treating both bulimia nervosa and binge eating disorder (Agras et al., 2000; Fairburn, 2002; Fairburn et al., 1991; Wilfley et al., 1993), and more current research is investigating effectiveness in

treating anorexia nervosa (Crafti, 2002). In comparison studies of IPT and CBT, researchers have found that while CBT results in significant changes more quickly, no significant differences exist between the two treatments with regard to longer-term effects. These effects were consistent for the treatment of both bulimia nervosa and binge eating disorder (Fairburn et al., 1995; Wilfley et al., 1993).

Group Therapy

While there has historically been some contradictory evidence around the efficacy of group-based therapy in the treatment of eating disorders, more recent research has consistently demonstrated significant effectiveness of group-based interventions (Freeman et al., 1988; Harper-Giuffre & MacKenzie, 1993; Nevonen et al., 1999; Reiss, 2002; Thompson-Brenner et al., 2003). This research has supported the utilization of group therapy across the spectrum of eating disorders, with particular emphasis on its use in the treatment of bulimia nervosa and binge eating disorder (Freeman et al., 1988; Nevonen et al., 1999; Reiss, 2002; Thompson-Brenner, et al., 2003). While studies utilizing group-based interventions in the treatment of anorexia nervosa have also shown positive results, researchers have emphasized the benefits of weight restoration and medical stabilization through individual treatment approaches before entering clients into a group treatment setting (Harper-Giuffre & MacKenzie, 1993).

Proponents of group therapy for the treatment of eating disorders have emphasized the number of benefits that clients can receive from participating in group-based treatment (Reiss, 2002). While clients of non-eating disorder focused treatment receive a number of benefits from group participation (i.e. a larger source of support, cost-effective treatment, peer support and feedback, etc.), it is arguable that eating

disorder clients stand to gain even more benefit from these factors as a result of the isolating, shaming, and distorted nature of their disorders (Reiss, 2002). Therefore, they may benefit greatly from a treatment program that could offer them increased supportive interaction with others, a sense of belonging and an opportunity to learn positive coping strategies from others.

Riess (2002) further discussed a multitude of benefits that can be received from participation in a theoretically integrated group treatment program, specifically citing the ability to address both problematic behaviors and interpersonal patterns within a supportive group setting. While similar goals can also be achieved in individual therapy, it is argued that the group approach has the benefit of using a peer group in order to provide new opportunities for self-exploration and self-correction within a more naturalistic setting. Another advantage of this model is the client's exposure to a number of treatment modalities that may originate from the use of different theoretical orientations, thus offering more opportunity for the identification of specific approaches that each client might deem most helpful in their own recovery process.

While the strengths associated with a group-based approach to eating disorder treatment seem clear, researchers also caution about a number of specific issues that may hinder both group and individual progress. Of particular importance are concerns regarding group size, client appropriateness, quality of therapist training, and the chosen group treatment modality (Harper-Giuffre & MacKenzie, 1993; Reiss, 2002; Reiss & Dockray-Miller, 2002). With regard to group size and client appropriateness, it is argued that smaller group formats and similarity in client concerns can improve both group cohesiveness and the group's ability to provide more effective and powerful therapeutic

experiences (Harper-Giuffre & MacKenzie, 1993). As mentioned previously, the medical stability of clients can significantly influence their ability to participate within group, and as Harper-Giuffre & MacKenzie (1993) discussed, some individual therapy may be necessary before severely underweight clients are appropriate for group treatment. According to Reiss (2002), the quality of therapist training and the reported satisfaction of both the clients' and therapist's experience can also significantly impact the overall success of the group. Finally, research has supported the need for theoretically integrated groups, with some research emphasizing preference for open-ended, long-term, and integrated treatment approaches (Reiss & Dockray-Miller, 2002).

Hypotheses

Two hypotheses were tested in this study.

Hypothesis 1: It was hypothesized that differences between pre-treatment and post-treatment EDI-3 (Garner, 2004) scale scores would demonstrate significant improvement across subscales, demonstrating a significant decrease in eating disorder-related symptomatology across the sample of study participants.

Hypothesis 2: It was hypothesized that an analysis of qualitative data collected from program participants would identify themes related to the acquisition of recovery skills. In addition, components of the program that participants found useful would be identified.

Method

Participants

The main research sample consisted of individuals who were enrolled in the La Luna Center Intensive Outpatient Treatment Program and who completed the entire

course of treatment. A sample size of (N = 37) program graduates was originally collected for the purposes of this study. However, the EDI-3's validity scales indicated that four participants responded in an atypical manner and were thus excluded from further analysis. Therefore, a smaller sample of 33 adult male (n = 2) and female (n = 31) program graduates ranging in age between 18-37 was used in the final analysis. Data from all participants were collected, de-identified and recorded by La Luna Center Staff, and then were provided to the researcher for use in this study.

Sixteen women (n =16), ranging in age from 18-30, began treatment and did not complete the program. These women were not included in the main analysis, as they were not provided with the EDI-3 (Garner, 2004) upon their exit, and therefore had no point of comparison for symptom changes throughout the process of treatment. However, data from the non-graduates' demographic and pre-program EDI-3 (Garner, 2004) were collected, de-identified and recorded by the La Luna Center Staff and then provided to the researcher for use in this study. This data was compared to the pre-treatment data of program graduates in order to see if there were any significant differences between graduates and non-graduates of the treatment program. Demographic and descriptive data about all participants are presented in Table 1.

Instruments

Eating Disorder Inventory - 3 *(EDI-3)* (Garner, 2004). The EDI-3 (Garner, 2004) was specifically designed to assess for attitudinal and behavioral traits related to anorexia nervosa (AN), bulimia nervosa (BN), and eating disorder not otherwise specified (EDNOS), and can be used within clinical, non-clinical and research settings (Garner, 2004). Within a clinical setting, the EDI-3 (Garner, 2004) may provide useful

information that can aid in the conceptualization, treatment planning, and progress tracking of individuals struggling with disordered eating and eating-related pathology. As a clinical instrument, the EDI-3 (Garner, 2004) provides an individualized client profile that can be compared to scores obtained from samples of patients with diagnosed eating disorders. Within that profile, specific concerns unique to the individual client are reported, thus alerting the clinician to specific and important areas of clinical focus. Finally, when administered across several points in time, this measurement can also be used for the tracking of client progress, symptom reduction, and overall response to treatment (Blouin et al., 1994; Dare et al., 2000; Garner, 2004).

The EDI-3 (Garner, 2004) can also be a valuable tool for use in non-clinical and research settings. Within a non-clinical setting, the EDI-3 (Garner, 2004) can assist in the identification of individuals who are at risk for developing an eating disorder and is appropriate for both adolescent and adult samples (Engstrom & Norring, 2002; Garner, 2004). As a research tool, the EDI-3 (Garner, 2004) provides descriptive information about research samples, has been used as an outcome measure for treatment, can supply prognostic information for treatment studies, and has been used to track general psychological functioning (Bizeul et al., 2001; Blouin, et al., 1994; Bulik et al., 1998; Garner, 2004).

The EDI-3 (Garner, 2004) was initially designed as an improvement over the Eating Disorder Inventory -2 (Garner, 1991), which was already a widely established assessment tool for the measurement of eating disorder related pathology (Garner, 2002). Given that the EDI-3 (Garner, 2004) retained the 91 questions originally developed for the EDI-2 (Garner, 1991), the content overlap is significant and allows for comparison

across instruments (Cumella, 2006). According to Cumella (2006), the major strength of the EDI-3 (Garner, 2004) is its conceptual integration of the rational and empirical research conducted with the EDI-2 (Garner, 1991), allowing for a new framework for understanding and reporting data collected from the instrument.

The EDI-3 (Garner, 2004) is a 91-item, self-report, multi-scale measure developed and standardized for use in the assessment of individuals with eating disorders. Participants are asked to respond to each item using a six point Likert scale that ranges from A (Always) to N (Never). In order to obtain scores, responses are compared to a scoring guide that ranks responses on a point system ranging from one to four. Except for items that have been reverse coded, items marked as A (Always) receive a score of four, U (Usually) receive a core of three, O (Often) receive a score of two, S (Sometimes) receive a score of one and R (Rarely) or N (Never) receive a score of zero. When scoring items that have been reverse coded, the scoring template is simply reversed. Items are then combined into different scales and raw scores are summed. While the profile scale scores are initially reported in a raw score format, they are transferred to a t-score format for further interpretation. Although the scores are in a continuous format, with higher scores representing higher pathology, clinical and non-clinical norms are available for comparison (Garner, 2004).

The EDI-3 (Garner, 2004) contains 12 clinical sub-scales, six composite scores, and three validity indicators. The 12 sub-scales are divided into three eating disorder risk scales and nine psychological scales. The three eating disorder risk scales include: drive for thinness, bulimia, and body dissatisfaction. The drive for thinness subscale consists of seven items that are designed to assess attitudes, thoughts and intentions related to

weight loss (Garner, 2004). The bulimia subscale consists of eight items designed to assess thoughts and behaviors associated with binge eating and purging (Garner, 2004). The body dissatisfaction subscale consists of 10 items that assess discontent with different parts of the physical body (Garner, 2004). The t-scores from these three scales are summed to establish an eating disorder risk composite score. This score provides a global measure for eating and weight concerns with equal weighting from each of the previous subscales (Garner, 2004). According to Garner (2004) the eating disorder risk composite score is often used for screening purposes, but can also provide an overall score reflecting the level of the participants eating concerns.

The nine psychological scales include: low self-esteem, personal alienation, interpersonal insecurity, interpersonal alienation, interoceptive deficits, emotional dysregulation, perfectionism, asceticism, and maturity fears. Of these, different subscales are combined in order to establish broader composite scores measuring ineffectiveness, interpersonal problems, affective problems, overcontrol, and general psychological maladjustment (Garner, 2004). Descriptions of each of these subscales and the relevant composite scales are provided below.

According to Garner (2004), the low self-esteem subscale consists of six items assessing negative self-evaluation, feelings of inadequacy, low self-worth, ineffectiveness, and insecurity. The personal alienation subscale consists of seven items that have some content overlap with the low self-esteem scale, but more broadly measures feelings of loneliness, emotional emptiness, and poor self-understanding. t-scores from these two scales are then combined to yield the ineffectiveness composite

score. High scores on this composite scale indicate a low self-evaluation, a sense of emotional emptiness and a larger deficit in personal identity (Garner, 2004).

The interpersonal insecurity scale consists of seven items, focusing on difficulties in expressing personal thoughts and feelings to others (Garner, 2004). The interpersonal alienation scale also consists of seven items that assess difficulty with attachment in relationships and may highlight difficulty with feelings of love and trust (Garner, 2004). t-scores from these two subscales are then combined to yield the interpersonal problems composite score (Garner, 2004). According to Garner (2004), high scores on this composite scale reflect a participant's experience within relationships and can also provide information about the quality of the participant's relationships as well.

Next is the interoceptive deficits subscale, which consists of nine items measuring the participant's difficulty with accurately recognizing and responding to internal emotional states (Garner, 2004). The emotional dysregulation subscale consists of eight items and also assesses internal states, but measures factors like mood instability, impulsivity, and self-destructiveness (Garner, 2004). t-scores from these two scales are then combined to yield the affective problems composite score (Garner, 2004). According to Garner (2004) this composite score assesses the general inability to accurately identify, understand, and effectively respond to emotional states. This score could also represent mood instability and impulsivity, and may even provide important information on the prognosis of the eating disorder (Garner, 2004).

The perfectionism subscale consists of six items that are designed to assess the importance an individual places on high standards of achievement and can demonstrate attitudes that are self-oriented, socially directed, or both (Garner, 2004). The asceticism

scale assesses the participant's tendency to seek virtue and spiritual ideals through self-restraint and self-denial (Garner, 2004). Together, t-scores from these two subscales compose the overcontrol composite score. According to Garner (2004), high overcontrol composite scores may indicate high personal goals, self-sacrificing methods of reaching standards, and a general sense of not deserving things from others.

Finally, the maturity fears subscale consists of eight items that assess the participant's difficulty with the physical, psychological, and social maturational process, and the presence of a drive to return to childhood (Garner, 2004). The t-score from this subscale, along with all of the other psychological subscales, is included in the general psychological maladjustment composite score. Garner (2004) warns against the use of this overall composite score due to issues with the multi-dimensionality of the underlying measures, but further discusses the possibility of using this score as an indicator of overall levels of psychopathology that may be useful in the prediction of treatment outcome.

There are also three response style indicators that are designed to assess for validity of client responses: inconsistency, infrequency, and negative impression (Garner, 2004). The inconsistency style indicator consists of 10 items that are either similar or opposite in content and are used to assess for the consistency of responses. In order to calculate the inconsistency style score, a few steps must be completed. First, the scores for corresponding items on this scale are collected and matched. Then, for each pair of items, the lowest score is subtracted from the highest score and the differences are recorded. Next, the differences are summed in order to obtain an overall inconsistency score. Finally, this summed score is compared to the normative sample to assess for

atypicality. Scores above 16 on this scale indicate an atypical response style, thus drawing the validity of the overall response set into question (Garner, 2004).

Both the infrequency and negative impression style scores are calculated in a similar and more simplistic manner. The infrequency style scale consists of 10 items that are rarely endorsed by the standardization sample (Garner, 2004). According to guidelines established by Garner (2004), calculation of this score is relatively simple and involves counting the number of items on this scale that were endorsed with a score of 4. If more than two items on this scale have been endorsed with a score of 4, then, according to Garner (2004), the profile's overall validity is questionable and interpretations should be made with caution.

Unlike the other validity scales, the negative impression style scale considers all of the participant's responses, assessing the degree to which the participant endorsed items in the negative or pathologically keyed direction. In order to obtain a score for this scale, the number of items with a score of 4 are counted. If more than 44 items have received a score of 4 then the profile's overall validity is again questionable, and interpretations of the profile should be made with caution (Garner, 2004).

While the EDI-3 (Garner, 2004) is still relatively new, studies utilizing the EDI-3 (Garner, 2004) with both clinical and non-clinical populations have demonstrated strong psychometric properties (Cumella, 2006; Garner, 2004). The EDI-3 has been normed on a sample of women with eating disorders who are between the ages 13 and 53. The norm sample was collected from both outpatient and inpatient treatment settings and reflects the full spectrum of disordered eating patterns (Garner, 2004). Measures of Internal consistency for this measure have almost all indicated a consistency above $\alpha = .80$. Test-

retest alpha coefficients were also excellent with α = .93 to .98 across studies. Garner (2004) and Cumella (2006) both report that the content, convergent, and discriminant validity of the EDI-3 (Garner, 2004) were also acceptable.

Program Feedback Form. The program feedback form is administered post-treatment and was created by the program director for the purpose of collecting qualitative data about client satisfaction and client identification of useful treatment components. This survey was divided into eight different sections, each of which assesses particular components of the Intensive Outpatient Treatment Program. These sections include: Monday: experiential, Wednesday: life skills, Thursday: process, group meal, appetite awareness, body connection, nutrition, and aftercare group. These sections each contained a subset of questions hoping to elicit client feedback for further evaluation of specific program components. Questions such as, "What did you find the most helpful about the experiential group?" "What did you find the least helpful about the experiential group?" and "What would you change about the experiential group?" request free form written answers from participants.

Procedure

From the beginning, the La Luna Center has administered the EDI-3 (Garner, 2004) to clients at both pre-treatment and post-treatment. Additionally, the post-treatment program feedback forms were administered to clients upon graduation from the treatment program. While the original EDI-3 (Garner, 2004) material contains identifying client information, La Luna Center staff de-identified these forms and entered client data into an electronic database in efforts to protect client privacy. That database was then provided to the researcher by La Luna Center for the purposes of this study.

The collected program feedback forms, while not electronically converted, were given to and received anonymously by program participants. There was no identifying information included within the program feedback form. While data is continuously collected, the information that was used for the purposes of this study was already collected and de-identified before being provided to the researcher. No additional client data was collected for the purposes of this study or included in the data analysis.

Data Analysis

Demographic information collected on the EDI-3 (Garner, 2004) qualitative data form was analyzed and reported. This data included information about participant age, sex, diagnosis, and height and weight, which were used to calculate Body Mass Index. Unfortunately no data on client ethnicity was provided.

In order to establish internal consistency for the EDI-3 (Garner, 2004), Chronbach's Alpha was computed for each subscale. Based on Cohen & Cohen's (1997) recommendations, an alpha level of .70 or greater was utilized as an indicator of minimum acceptability for experimental research.

To assess for the validity of client responses, scores on each of the three validity scales (infrequency, inconsistency, and negative impression) were calculated for each participant and compared to norms established by Garner (2004). Scores on these scales that were above the 95th percentile as established by the normative sample were considered atypical, and were not included in the final analysis (Garner, 2004).

To test the first hypothesis, that pre-treatment and post-treatment EDI-3 (Garner, 2004) comparisons would demonstrate significant symptom improvement across

subscales, paired samples t-tests were run. All scales meeting the minimum scale reliability criteria for inclusion in this study were included in the analysis.

To test the second hypothesis, that an analysis of qualitative data collected from program participants would identify themes in participant reports of important recovery skills and effective program components, qualitative analysis of participant responses was conducted.

This qualitative analysis followed a Constant Comparison Analysis approach as outlined by Straus and Corbin (1990), and was conducted by five independent coders. This was an iterative process that was completed through the following steps:

- The data was compiled through a review of the responses provided by participants on the anonymous program feedback form.
- From this data set, the independent coders identified and recorded themes present in the text and then categorize them into list form.
- From this list, the coders identified the key messages or concepts within the texts of the responses and then compared the concepts to each other, combining similar concepts and eliminating duplicates.
- After the duplicates were eliminated, a smaller list of themes was established and a general coding guide was created. This coding guide was then used in order to re-analyze the data during an open coding process.
- During the open coding process, the coders again examined the text from the original Program Feedback Forms and continued to explore the data for new themes. When a new theme arose, the coders adapted the existing

coding guide accordingly, in order to ensure a comprehensive and totally representative final list of concepts.

- After open coding, a final list of themes was established and the frequency of each theme was recorded in order to assess for presence and impact of each theme. Then, this final list was reviewed in order to assess for the presence of any broader or overarching themes. The overarching themes, more specific themes, and quantitative frequency data are presented in the results section.

Qualitative Research Criteria. Lincoln and Guba (1985) describe four criteria that are used to establish the trustworthiness of qualitative data. These are credibility, transferability, dependability, and confirmability. Together, these criteria allow qualitative researchers to accept the presence of many different perspectives on reality, while also assuring that the most accurate representation of the participants' experience or experiences was collected, analyzed and presented to the reader.

The first criterion, *credibility*, highlights the importance of the researcher's ability to accurately represent the participants' experience. This research study employed two techniques that were recommended by Lincoln and Guba (1985) in order to produce credible results. First, the main researcher worked as a group therapist at La Luna center for two years, thus participating in *prolonged engagement* with the research participants. The direct exposure to both the participant sample and the treatment program allowed the researcher to become deeply familiar the treatment center's culture, thus allowing for greater insight into the language and experiences of the research participants. The second technique, *negative case analysis,* was used during Constant Comparison Analysis in

order to further explore and question each of the themes that emerged. According to Strauss and Corbin (1998), the process of looking for negative cases, instances in which the perceived relationships between data may not hold up, when conducting Constant Comparison Analysis, allows for a deeper understanding of and increased density to the final results achieved.

The second criterion, *transferability,* is similar to the concept of external validity in that the results from the qualitative analysis are hoped to be applicable to future populations or broader settings. However, as Lincoln and Guba (1985) discussed, in the case of qualitative research there tends to be a greater recognition of the uniqueness of the participant sample, and thus an emphasis on limitations in the direct generalizability of findings. Instead, it is expected that the researcher will provide a thickly detailed description of the data in order to allow for judgments of transferability to be made by those interested in applying the results to a new setting. In order to accomplish this, a detailed account of the treatment program setting, ideology and structure was provided at the outset of this dissertation. In addition, descriptive details of the participant sample, emergent themes found within participant responses, and quantitative accounts of those themes are also included within the results and discussion sections of this manuscript.

The third criterion, *dependability*, aims to establish a sense of reliability within the data reported. This was accomplished through the use of a five-person undergraduate research team that was provided training in the general knowledge of eating disorders, but had no significant or direct previous exposure to eating disorder treatment or the study's participants. The research team members were all enlisted as "auditors" responsible for conducting an independent, yet parallel Constant Comparison Analysis of

the participants' responses. After all team members completed their preliminary analyses, the entire team met to review and compare their results. Since the team's identified themes were generally consistent and complimentary, they were easily combined into one comprehensive coding guide that was used a final time in order to analyze the data and obtain a comprehensive account of emergent themes.

The final criterion, *confirmability*, aims to achieve a sense of objectivity within the process of data collection, analysis and reporting. According to Lincoln and Guba (1985), confirmability can be most directly accomplished by ensuring that the research results are grounded within the data itself. Given that Constant Comparison Analysis is directly guided by grounded theory and specifically employs an iterative methodology that is solely reliant on the use of data provided directly by participants, confirmability can be easily inferred. In addition, Lincoln and Guba (1985) have argued that confirmability also dovetails the independent auditing process and can typically be assumed in connection with the achievement of dependability that was discussed previously.

Results

Data Management and Preliminary Analyses

Data management and analyses were conducted using SPSS, Version 17.0. Data was initially gathered from 36 graduate and 17 non-graduate program participants. Preliminary analysis of each participant's EDI-3 validity scales indicated that four participants (3 graduate, 1 non-graduate) responded in an atypical manner. These cases were considered invalid and were excluded from further analysis.

Participant Characteristics

Gender. Data from two different samples of participants were collected and used in the final analysis of this study. The first sample consisted of 33 treatment program graduates. Analysis of the graduate sample found that 2 (6.1%) were male and 31 (93.9%) were female. The second sample consisted of 16 participants who did not complete the treatment program for various reasons and all 16 (100%) of these non-graduates were women. See Table 1 for demographic and descriptive information about the participant sample.

Age. All participants of the La Luna Center IOP must be above the age of 18 before entering into the treatment program. Analysis of the graduate participant sample found that most (81.8%) of participants were between the ages of 18 - 28 and the rest (18.2%) were between the ages of 29 - 37. Similarly, of the 16 non-graduates, most (87.5%) were between the ages of 18 - 28 and only 12.5% were between the ages of 29 – 37.

Diagnosis. The eating disorder diagnoses of participants were recorded at the time of their entry into the program. Of the program graduates, the majority (39.4%), were diagnosed with eating disorder not otherwise specified, 33.3% were diagnosed with anorexia nervosa (21.2% were restricting type and 12.1% were binge/purge type), and 27.3% were diagnosed with bulimia nervosa. The non-graduate sample also presented with a variety of eating disorder diagnoses, 25% were diagnosed with anorexia nervosa – restricting type, 56.2% with bulimia nervosa, and 18.8% with eating disorder not otherwise specified.

Body Mass Index. Height and weight of participants were both recorded at the time of their entry into the program, and also at the time of program completion. From this information, Body Mass Index (BMI) was calculated.

Upon entry into La Luna Center's IOP, 30.3% of the graduate participant sample was considered underweight (BMI below 18.5), 48.5% were in the average weight range (BMI between 18.5 and 25), 18.2% were overweight (BMI greater than 25), and 3% did not have their weight or height recorded, which typically indicates that they were in the average weight range and did not need to have their weight monitored. Upon graduating the IOP, only 12.1% of participants remained underweight, the majority of participants (60.6%) were in the average weight range, the same percentage (18.2%) remained overweight, and again 9.1% did not have their weight or height recorded.

Body mass index data for the non-graduate sample were only provided upon program entry. Of the 16 non-graduate women included in this study, 37.5% were underweight (BMI below 18.5) and 62.5% were within the average weight range (BMI between 18.5 and 25).

Scale Reliabilities

In order to establish internal consistency for all EDI-3 (Garner, 2004) scales used in this study, Chronbach's Alpha was computed for each scale. An alpha level of .70 or greater was utilized as an indicator of minimum acceptability for experimental research (Cohen & Cohen, 1997). It is important to note that the scale reliabilities for the emotional dysregulation scale (α =.68) and the asceticism scale (α = .69) were both lower than what is deemed minimally appropriate for use in experimental research. Therefore, these scales were excluded from further analysis. However, the three larger composite

scales, affective problems, overcontrol, and general psychological maladjustment, all of which subsumed these subscales, still achieved Alpha scores greater than $\alpha = .70$ and were thus included in analysis. Alpha's computed for all EDI-3 (Garner, 2004) scales are presented in Table 2.

Independent Samples t-Test

An independent samples t-test was run in order to determine the presence of any differences across EDI-3 (Garner, 2004) subscales between the graduate ($n = 33$) and non-graduate ($n = 16$) samples at the time of program admission. It was hoped that these differences might provide insight into specific factors, such as eating disorder severity, that would differentiate the graduate and non-graduate groups at the time of program admission. Data are presented in Table 3.

Of the three eating disorder risk subscales, seven psychological subscales and six composite scales included in the analysis, the bulimia subscale was the only one to demonstrate a significant difference between the graduate ($M = 54.70$, $SD = 12.46$) and non-graduate ($M = 47.19$, $SD = 10.37$); $t\ (47) = 2.126$, $p = .039$ samples. Bulimia subscale scores indicated that at the point of admission, program graduates reported significantly higher levels of pathology with regard to thoughts and behaviors associated with binging and purging than did the non-graduate participants. Initially, these results were contrary to expectation, given that most (62.5%) of the non-graduate participants left treatment early to attend a higher level of care, and thus a higher level of pathology at admission might be expected. However, further analysis revealed that at the time of exit, 6 (60%) of the non-graduate participants who left for a higher level of treatment demonstrated suicidal ideation, concurrent substance abuse, and/or medical instability

resulting from non-bulimia related behaviors, all of which violated their eligibility for the IOP treatment program and forced them to leave.

When considering both the reasons provided for participant drop-out and the results of the independent t-test, it is not possible to conclude that differences in severity of eating disorder pathology, as measured by the EDI-3 (Garner, 2004), are indicative of program non-completion. Instead, program non-completion appears to be more directly attributed to participant-perceived goodness of fit, deterioration of functioning related to restricting behaviors, or to symptomatology unrelated to eating disorder pathology altogether.

Dependent Samples t-Test

In order to test the first hypothesis, that differences between program graduates' pre-treatment and post-treatment EDI-3 (Garner, 2004) scale scores would demonstrate significant improvement across scales, dependent samples t-tests were run. Results indicated that differences between the paired subscales were significant across all three eating disorder risk subscales, seven psychological subscales, and six composite scales included in the analysis. Overall, these results demonstrated a gross decrease in the graduates' reported symptomatology from admission to program completion.

The clinical range associated with each scale score was also recorded in order to provide additional information about the degree of pathology reported, relative to a normative sample of individuals diagnosed with eating disorders (Garner, 2004). All pre- and post-EDI-3 (Garner, 2004) scale scores fell within a *typical clinical* range or *low clinical* range. The *typical clinical* range is designated when reported pathology is commensurate with a clinical population struggling with severe and significant eating

disorder pathology, while a *low clinical* range indicates that participants do not report significant problems with eating and weight concerns relative to a normative sample of individuals with eating disorders (Garner, 2004). See Table 4 for dependent sample t-test and clinical range data.

Three eating disorder risk subscales and one eating disorder risk composite scale were included in this analysis. Scores on the first eating disorder risk subscale, drive for thinness, demonstrated significant improvement from pre-test (M = 48.09, SD = 11.48, *typical clinical*) to post-test (M = 36.18, SD = 13.46, *low clinical*); t (32) = 6.81, p = .000. According to Garner (2004) this shift indicates an overall decrease in attitudes, thoughts and intentions related to weight loss. The bulimia subscale also demonstrated a significant positive change from pre-test (M = 54.70, SD = 12.46, *typical clinical*) to post-test (M = 42.85, SD = 9.26, *low clinical*); t (32) = 5.23, p = .000), indicating an improvement in thoughts and behaviors associated with binge eating and purging. The pre-treatment body dissatisfaction subscale (M = 47.33, SD = 11.232, *typical clinical*), an indicator of body image disturbance, also decreased significantly at post-test (M = 39.52, SD = 11.78, *low clinical*); t (32) = 5.11, p = .000. When combined, these three eating disorder risk subscales yield the eating disorder risk composite score, a measure that provides clinical information about overall eating disorder severity (Garner, 2004). The graduates' eating disorder risk composite scores decreased from a *typical clinical* range at pre-test (M = 49.18, SD = 12.64) to the *low clinical* range at post-test (M = 35.48, SD = 13.07); t (32) = 6.74, p = .000. This change from admission to graduation demonstrates a significant reduction in disordered behaviors and attitudes associated with eating.

The other nine psychological subscales (low self-esteem, personal alienation, interpersonal insecurity, interpersonal alienation, interoceptive deficits, emotional dysregulation, perfectionism, aseticism and maturity fears) and five composite scales (ineffectiveness, affective problems, overcontrol, interpersonal problems, and global psychological maladjustment) measure more global constructs and psychological traits relevant to eating disorders. Due to low scale reliability, both the emotional dysregulation (α =.68) and asceticism (α = .69) subscales were excluded from analysis. However, the remaining seven psychological subscales and five composite scales met the minimum Alpha requirement for inclusion in research (α =.70) and were thus included in the dependent samples t-test (Cohen & Cohen, 1997). Results of this analysis indicated a significant reduction in pathology from pre-test to post-test across all of the included scales, with the majority of scales shifting from the *typical clinical* range to the *low clinical* range. The following section delineates the specific scores and clinical ranges for each of these scales.

The low self-esteem subscale is designed to measure negative self-evaluation, feelings of inadequacy, low self-worth, ineffectiveness, and insecurity. Pre-treatment scores (M = 49.55, SD = 9.401, *typical clinical*) on this scale reduced significantly by treatment end (M = 39.24, SD = 9.847, *low clinical*), t (32) = 5.88, p = .000, with program graduates demonstrating a marked improvement in self-esteem related constructs. The personal alienation subscale, a measure of broader feelings of loneliness, emotional emptiness, and poor self-understanding also reduced significantly from pre-treatment (M = 49.70, SD = 7.947, *typical clinical*) to post treatment (M = 39.94, SD = 9.663, *low clinical*), t (32) = 5.90, p = .000. When combined, scores on these two psychological

subscales yield the ineffectiveness composite score, which also demonstrated a significant decrease from pre-test (M = 48.42, SD = 9.65, *typical clinical*) to post test (M = 38.42, SD = 9.97, *low clinical*), t (32) = 5.78, p = .000. Overall, changes on this section of the EDI-3 (Garner, 2004) demonstrated a positive shift in areas of self-evaluation, emotional depth and personal identity, with all scores ending in the *low clinical* range.

Mean scores on the interpersonal insecurity subscale, a measure of difficulty in expressing personal thoughts and feelings to others, also reduced significantly from pre-test (M = 49.42, SD = 8.83, *typical clinical*) to post-test (M = 41.76, SD = 7.01, *low clinical*), t (32) = 6.24, p = .000. The interpersonal alienation subscale, which indicates difficulty with attachment in relationships and with feelings of love and trust, also demonstrated significant differences between pre-test (M = 51.91, SD = 8.82, *typical clinical*) post-test (M = 45.03, SD = 9.75, *typical clinical*), t (32) = 3.86, p = .001. However, scores on this scale remained within the *typical clinical* range, indicating that program graduates continued to struggle with clinically significant attachment concerns when compared to a normative sample of individuals with eating disorders (Garner, 2004). Scores on these two subscales combine to yield the more global interpersonal problems composite score. This composite score, which reflects the participants' overall quality of experience within relationships, also improved from pre-test (M = 49.61, SD = 9.96, *typical clinical*) to post-test (M = 42.12, SD = 8.91, *typical clinical*), t (32) = 4.74, p = .000. Unfortunately, the composite scale score also remained in the *typical clinical* range, again indicating a continued area of clinically significant concern for program graduates (Garner, 2004).

The next measure to demonstrate significant improvement from pre-test (*M* = 49.67, *SD* = 10.03, *typical clinical*) to post-test (*M* = 38.97, *SD* = 7.11, *low clinical*), *t* (32) = 6.46, *p* = .000, was the interoceptive deficits subscale. The decrease in scores on this measure demonstrated a significant improvement in the participant's reported comfort and ability to accurately recognize and respond to their internal emotional states (Garner, 2004). Scores from this scale combine with scores from the emotional dysregulation scale, which was not included in this analysis, to yield the affective problems composite score. Changes in this composite score demonstrated a significant global decrease in emotional concerns from pre-test (*M* = 48.38, *SD* = 10.01, *typical clinical*) to post-test (*M* = 39.82, *SD* = 7.83, *low clinical*), *t* (32) = 5.81, *p* = .000. The *low clinical* range on this composite score indicated that when compared to the normative sample, the program's graduates no longer reported significant difficulty in accurately identifying, understanding, and effectively responding to emotional states (Garner, 2004).

The perfectionism subscale, designed to assess the importance an individual places on high standards of achievement, also decreased from pre-test (*M* = 50.17, *SD* = 8.47, *typical clinical*) to post-test (*M* = 46.85, *SD* = 8.30, *typical clinical*), *t* (32) = 2.96, *p* = .006. Scores from the perfectionism scale combine with scores from the asceticism scale, which was not included in this analysis, to yield the overcontrol composite score. The significant decrease in this composite score from pre-test (*M* = 48.97, *SD* = 9.42. *typical clinical*) to post-test (*M* = 41.39, *SD* = 9.15, *low clinical*), *t* (32) = 4.78, *p* =.000, indicated that program graduates experienced a profound increase in flexibility and sense of deserving along with a decrease in unrealistically high standards even when compared to the normative sample (Garner, 2004).

Maturity fears, the final psychological sub-scale, also demonstrated a significant decrease from pre-treatment (M = 47.39, SD = 7.87, *typical clinical*) to post-treatment (M = 42.76, SD = 6.34, *low clinical*), t (32) = 4.34, p = .000. The decrease in scores on this measure demonstrated a significant improvement in the participants' reported difficulty with the physical, psychological, and social maturational process, and the presence of a drive to return to childhood (Garner, 2004).

Given that there was a significant decrease across the EDI-3 (Garner, 2004) eating disorder risk subscales, psychological subscales, and composite scales, with the majority reaching a *low clinical* range, it is no surprise that the global general psychological maladjustment score also demonstrated a significant decline across the IOP treatment period. This score, which is suggested as an indicator of overall levels of psychopathology (Garner, 2004) decreased from (M = 47.73, SD = 9.15, *typical clinical*) to (M = 37.45, SD = 10.27, *low clinical*), t (32) = 5.50, p = .000, indicating that upon graduation, participants were generally functioning at a higher level than a normative sample of individuals diagnosed with eating disorders (Garner, 2004).

While significant improvements were noted across all scales, it is important to note that even the *low clinical* range does not mean that an individual is fully recovered or experiencing a total absence of eating disorder symptoms. This range simply indicates a marked decrease in pathology, particularly in relationship to a normative clinical sample that meets criteria for an eating disorder diagnosis (Garner, 2004). While program graduates may report marked improvement in functioning across a variety of life factors and may even endorse an absence of eating disorder behaviors, it is still generally assumed that some residual eating disorder pathology (i.e. attitudes, urges, etc.) will exist.

Thus, continued outpatient treatment is often recommended upon discharge from La Luna Center's IOP.

Constant Comparison Analysis

In order to test the second hypothesis, that feedback forms provided by graduating participants would identify program components and particular skills that were deemed helpful to the process of recovery, a Constant Comparison Analysis (Straus & Corbin, 1990) of these forms was conducted. Although all 33 program graduates were provided with a feedback survey upon their graduation, only 19 feedback surveys were completed and returned. The completed surveys were reviewed and coded by five coders who worked independently in order to identify common themes across the participants' responses. These coders then discussed and combined their findings in order to establish a unified coding guide and to identify a final set of emergent and overarching themes within the data. This coding guide is presented in Table 5.

The Constant Comparison Analysis (Straus & Corbin, 1990) yielded seven emergent themes that were identified as helpful to the process of recovery. In further identifying the relationship between these emergent themes, it was agreed that they all appeared to be couched within two broader overarching categorical themes. Specifically, these overarching themes were (1) *personal factors* and (2) *program factors*.

Within the *personal factors* category, three lower-level emergent themes were identified. These were: (1) *application of skills and new behaviors* (2) *development of internal connection* and (3) *personal growth and learning*.

The first emergent theme, *application of skills and new behaviors*, consisted of seven sub categories highlighting specific ways in which clients noticed they were

applying new skills and behaviors to their lives inside and outside of the treatment setting. The three sub-categories that were mentioned most often were: the *practicing of mindfulness while eating* (*n* = 11), the *tracking of hunger and fullness cues* (*n* = 10), and *saying struggles out loud to others* (*n* = 8). Clients also mentioned being able to: *plan ahead for meals* (n = 3), *use DBT skills* (*n* = 2), *challenge food rules* (*n* = 2) and *build relationships* (n = 2).

The second emergent theme, *development of internal connection*, consisted of seven sub-categories highlighting more specific ways in which clients were connecting with themselves on a deeper level. The two sub-categories that were mentioned most were *tuning into body signals and urges* (*n* = 14) and *developing a connection to hunger and fullness signals* (*n* = 10). Other sub-categories included: *general awareness* (*n* = 4), *feeling centered* (*n* = 3), *paying attention to thoughts* (*n* = 2), *connecting with themselves* (*n* = 2), and *learning how to relax the body* (*n* = 2).

The third emergent theme, *personal growth and learning*, consisted of three sub-categories. The two that were mentioned the most were: *identifying eating patterns and triggers* (*n* = 11) and *learning hidden facts about themselves* (*n* = 8). The final sub-category was *developing a creative side* (*n* = 2).

Within the broader category of *program factors*, three emergent themes were also identified. These were: (1) *program environment* (2) *program structure* and (3) *education*. The first emergent theme, *program environm*ent, consisted of five major sub-categories. *Safety* was the biggest subcategory with factors related to safety mentioned 26 times in the feedback surveys. The word safety itself was mentioned eight times along with: *openness* (*n* = 4), *support* (*n* = 4), *non-judgmental atmosphere* (*n* = 4), *comfort* (*n* =

2), *trust* (*n* = 2), and *relaxed atmosphere* (*n* = 2). The other sub-categories were: the *staff* (*n* = 9), *involvement with others* (*n* = 7), *challenge* (*n* = 5), and *flexibility* (*n* = 4).

The second emergent theme, *program structure*, consisted of three major sub-categories. The largest sub-category was *activities*, with 30 references to specific activities that clients found helpful. While the most commonly mentioned activity was *psychodrama* (*n* = 14), *mindfulness* (*n* = 6) and *art* (*n* = 4) were also mentioned a number of times. Other activities that were mentioned included: *structured meals* (*n* = 2), *acupuncture* (*n* = 1), *check-ins* (*n* = 1), *reading stories* (*n* = 1), and *cards* (*n* = 1). The other sub-categories were *printed handouts* (*n* = 7) and *small group size* (*n* = 2).

The third emergent theme, *education*, consisted of two major subcategories. The sub-category mentioned most often was *DBT skills* (*n* = 15), with *general skills* mentioned eight times, *assertiveness* mentioned three times, *urge surfing* mentioned two times, and *emotions* and *thought challenging* both mentioned once. The final sub-category was *nutrition* (*n* = 7), with clients emphasizing the importance of learning about the basics of nutrition, along with new ways to think about and approach food.

Discussion

This study aimed to address the paucity of eating disorder treatment research by analyzing data obtained from an adult client population attending a group-based intensive outpatient treatment program for disordered eating at the La Luna Center for Eating Disorders in Northern Colorado. It was hypothesized that differences between pre-treatment and post-treatment EDI-3 (Garner, 2004) scale scores would demonstrate a significant decrease in eating disorder-related symptomatology across the program's graduate participants. It was also hypothesized that an analysis of qualitative data

collected from anonymous surveys provided to the program's graduates would identify themes highlighting components of the program that participants found particularly useful in their recovery.

Before testing the first hypothesis, initial analyses were run in order to investigate if, at admission, differences existed between program participants who completed the treatment program and those who did not. It was hoped that this data would provide further understanding of client factors present at the time of admission that may impact completion of the La Luna Center's IOP. Analysis found that participants who did not complete the treatment program varied in diagnosis, initial body mass, and reasons for early termination. While the most common reason provided for non-completion was leaving for a higher level of treatment, scores reported on the pre-treatment EDI-3 (Garner, 2004) did not indicate significantly higher levels of eating disorder pathology within the non-graduate group at the time of admission. The only scale to demonstrate any significant difference between the two groups was the bulimia subscale, with the graduate group demonstrating higher levels of pathology than the non-graduate group.

While at first these results appeared contradictory to expectation, further analysis revealed that most participants who left for a higher level of treatment left as a result of non-bulimic concerns, such as medical instability, suicidality, and substance abuse. While these concerns are often co-morbid with eating disorders, none of them could have been present during the administration of the pre-treatment EDI-3 (Garner, 2004), since their presence would have made the participant ineligible for the program. Unfortunately, no follow-up measures were provided to the non-graduates before their exit from the program that would have allowed for a clearer assessment of eating disorder

severity at that point in time. As a result, all that can be concluded is that early exit for a higher level of care was likely not due to factors measured by the EDI-3 (Garner, 2004) scales at the time of admission, but rather factors that emerged during the process of treatment. In the future, it would be helpful for participants leaving the program to receive an EDI-3 (Garner, 2004) at the time of departure. Administration of this measure at that point may provide important feedback to the program about eating disorder factors influencing participant dropout.

In order to test the first hypothesis, that differences between pre-treatment and post-treatment EDI-3 (Garner, 2004) scale scores would demonstrate significant improvement across subscales, a dependent samples t-test was run. While each of the EDI-3 (Garner, 2004) scales measure important components of psychological functioning, the first three subscales (drive for thinness, bulimia, and body dissatisfaction) constitute a specific component of the EDI-3 (Garner, 2004) that measures attitudes and behaviors directly related to eating. As such, these three scales combine to form the eating disorder risk composite score (EDRC), which is often considered the best indicator of an individual's overall level of disordered eating (Engelsen & Laberg, 2000). As expected, the graduates' pre-treatment mean EDRC score was in the *typical clinical* range ($T = 48.06$), a score that demonstrates significant eating and weight concerns characterized by fear of weight gain, desire to be thinner, binge eating tendencies, and body dissatisfaction. However, by the end of treatment the EDRC mean score fell into the *low clinical* range ($T = 38.18$), a score which suggests that program graduates no longer experience significant problems with eating and weight concerns relative to the normative sample of individuals with eating disorders (Garner,

2004). These findings demonstrate a significant positive shift in eating-related attitudes and behaviors experienced by program participants from pre to post-treatment.

Results from the analysis of the additional psychological subscales and related composite scales also indicated that program graduates experienced significant improvement with regard to self-esteem, interpersonal effectiveness, internal self-connection, perfectionism, and maturity fears. Even though the post-treatment scores on the perfectionism, interpersonal alienation and interpersonal problems scales remained within the *typical clinical* range, all scores demonstrated a significant decline, with the majority of scales, and even the overall general psychological maladjustment score, reaching the *low clinical* range upon program completion.

When taken together, this data provides clear support of participant improvement with regard to specific eating disorder behaviors and general psychological functioning after completing La Luna Center's IOP. However, it is important to acknowledge that the post-treatment scores, even those in the *low clinical* range, indicated the presence of residual eating disorder symptomatology. It may be helpful for La Luna Center to consider this data as feedback about particular strengths and potential areas of improvement for their IOP treatment program.

Feedback for La Luna Center

Based on the scales that reached the *low clinical* range, it is clear that one of major strengths of La Luna Center's IOP is the ability to decrease core eating disorder behaviors and attitudes. The IOP also appears to effectively address a broader range of psychological concerns, including low self-esteem, assertiveness, self-awareness, and maturity fears, all of which likely contribute to graduates experiencing better overall life

functioning. In contrast, scores that remained in the *typical clinical* range on the perfectionism, interpersonal alienation and interpersonal problems composite scales all indicate a possible need for the program to better address the persistence of difficulties with unrealistically high standards, trust, and relationship building. While the significant decrease in these scale scores from pre- to post-treatment indicate that current program components are already beginning to address these concerns, it may be important for the program to consider taking additional time to emphasize these specific topics within the group setting.

While La Luna Center may consider integrating additional program components aimed to more specifically address these particular issues, this data also reinforces the need for program graduates to continue participating in outpatient therapy past graduation. In fact, outpatient therapy is often recommended upon client discharge from the IOP with the hope that continued treatment can help to provide a steady source of therapeutic support while graduates work towards a more complete resolution of eating disorder symptomatology. Furthermore, with the significant reduction in core eating disorder behaviors resulting from the IOP, graduates may be better equipped to manage residual concerns (i.e. eating disorder attitudes, body image concerns, interpersonal difficulties, relapse prevention etc.) in a less structured outpatient setting.

In order to identify particular components of the IOP that graduates identified as most helpful to them, feedback from anonymous surveys provided to the program graduates was analyzed through Constant Comparison Analysis (Straus & Corbin, 1990). While the participants' reports of these components are purely anecdotal and cannot be directly established as mechanisms of change, it was hoped that they would provide

added depth to the treatment picture and program evaluation process. In their feedback responses, the program graduates identified a number of helpful program factors that fit within two emergent theme categories - either *personal factors* or *program factors*. The final coding guide used for the feedback survey response data is reported in Table 5.

When reporting specific *personal factors* that were helpful to their recovery, participants emphasized their ability to apply new skills and behaviors, such as mindfulness while eating, an ability to mentally monitor hunger and fullness cues, and an ability to openly discuss their difficulties with others. Participant identification of these factors makes sense given that they are congruent with the trans-theoretical approach of La Luna Center's IOP and also identify strengths of empirically supported techniques grounded in DBT (McCabe, LaVia, & Marcus, 2004), appetite awareness training (Craighead, 2006) and IPT (Fairburn, 2002) approaches for the treatment of eating disorders.

Participants also highlighted the importance of a newly developed sense of interoceptive awareness, highlighting how they have become better connected with and more able to understand their internal bodily sensations, signals, and urges. Participant reporting of this factor is congruent with results from their post treatment EDI-3 (Garner, 2004) scores, which demonstrated a significant reduction on the interoceptive awareness scale. This factor seems particularly important to the recovery process since it is well known that eating disorders are associated with a number of psychological symptoms related to a lack of ability to interpret, monitor and respond to internal bodily states. Furthermore, this characteristic lack of interoceptive awareness is thought to influence regulation of emotion, perception of body image and pathological attitudes and behaviors

related to food, fat and weight (Garner, 2004). While eating behaviors may be more easily addressed through behaviorally-based treatment approaches (Fairburn, 2002), both distorted self perceptions and deficits in interoceptive awareness can be very persistent, and are thought to be a main causal factor in the high recidivism rates for eating disorders (Barbarich, Kaye & Jimmerson, 2003). The fact that participants highlight this factor as something present and helpful within the IOP treatment demonstrates a great strength of La Luna Center's approach, which integrates treatment components that could possibly lead to a longer and more sustainable recovery.

Finally, participants reported experiencing a great deal of personal growth and learning, with a new ability to identify unhelpful eating patterns, triggers, and other factors about their lives that impact their eating disorder urges and related behaviors. The participants' identification of these factors fit with both CBT and DBT perspectives on techniques essential to the treatment of eating disorders (Fiarburn, 2002, Safer, Telch, & Agras, 2001; Telch, Agras & Linehan, 2000) and may also be directly reflected in changes seen in the EDI-3 (Garner, 2004) eating disorder risk subscales. After all, the new insight and awareness reported by participants likely improves their ability to identify triggering environmental stimuli early on, have the necessary time to apply newly learned skills, and more effectively prevent behaviors that may lead to negative affect and maladaptive coping patterns (Fairburn, 2002; Safer, Telch, & Agras, 2001; Telch, Agras & Linehan, 2000). Furthermore, these factors emphasize the importance of the IOP's Wednesday night group, which specifically teaches a combination of these skills, while also integrating time for skill practice and application.

Within the second emergent theme category of *program factors*, participants reported three main program components that were particularly helpful in their recovery process. First, they highlighted the safety of the program environment, which reportedly provided them with an open, supportive, non-judgmental, and comfortable atmosphere in which to explore and challenge their eating disordered thoughts, urges, and behaviors. Given the secretive, isolating and shameful nature of eating disorder behaviors, it is no surprise that participants highlighted these aspects as particularly helpful. Furthermore, these characteristics are essential factors of treatment across theoretical approaches (Fairyburn, 2002, Linehan, 1993; Wooley, 1995) and are usually identified as necessary building blocks upon which group therapy proceeds (Reiss, 2002).

Second, program graduates identified the overall integrated group program structure as helpful by highlighting their appreciation of exposure to a number of different group modalities, such as psychodramas, guided meditations, art, skills, and group meal. Participant identification of these different modalities fits with the greater feminist approach of the treatment program which aims to address eating disorders from a broader spectrum, rather than utilizing a specific intervention or predetermined approach for all clients (Wooley, 2005). By integrating different techniques into the treatment, participants are offered more opportunity to identify specific approaches that they deem most helpful to their own recovery process. Thus, the strength of this model lies in the ability to respect the individuality of each client, while also allowing for a group-based treatment program that addresses major etiological features common across eating disorders.

Finally, participants reported an appreciation for the psychoeducational components of the treatment program, highlighting both the nutritional information and dialectical behavioral therapy (DBT) skills as particularly helpful. In discussing the nutritional component of the treatment program, patients identified the importance of learning the basics of nutrition, developing the ability to challenge unhealthy nutritional beliefs, and learning about appetite awareness training (Craighead, 2006). Participants also discussed appreciation of having both group-based and individual nutrition therapy, reinforcing the importance of taking a multi-disciplinary approach to eating disorder treatment.

In addition to emphasizing the nutritional component of treatment, participants also reported finding the specific DBT skills of assertiveness, urge surfing, emotional awareness and thought challenging as particularly helpful to their recovery. Furthermore, they expressed the importance of having printed skills handouts that could be used for later reference. By identifying these skills as helpful, participants lend support to current research on the effectiveness of applying a DBT structure to eating disorder treatment (Safer et al., 2001). To date, this research has yielded generally positive results, finding DBT techniques useful in addressing the impulsive behaviors, emotional dysregulation, comorbid personality disorders, suicidality, and feelings of instability that are characteristic of clients struggling with severe eating pathology. More specifically, DBT skills have been used to teach clients how to utilize self-awareness in order to identify triggers associated with disordered eating, and to respond to those triggers through the use of healthier and more effective coping tools (Safer et al., 2001). At La Luna Center, the appropriate utilization of these skills is taught throughout the entire course of

treatment, with all DBT skills routinely practiced with participants in both group and individual settings.

Broader Clinical Implications

Overall, data from the feedback survey complement data from the EDI-3 (Garner, 2004) scales, providing a richer anecdotal record of success in the program graduates' eating disorder recovery. Together, these instruments demonstrate not only significant and positive changes in the participants' eating disorder behaviors and attitudes, but also highlight different aspects of the recovery process that have allowed the participants to feel more successful throughout their treatment experience. Consequently, this study's results contribute to the current treatment literature by lending preliminary support for a theoretically integrated, feminist, group-based intensive outpatient treatment approach to a broad spectrum of eating disorders. While the quantitative portion of this study highlighted significant symptomalogical changes that participants experienced from pre- to post treatment, it is the qualitative portion that provides a deeper insight into individual factors, specific therapeutic techniques, and general program factors that participants found particularly helpful to eating disorder recovery.

Current clinicians could gain from this study's findings by using them to inform their current practice and treatment modalities. Empirically-supported cognitive behavioral therapeutic approaches already used by mental health professionals focus on the identification of distorted cognitions and underlying belief systems in conjunction with initiating direct change through behavioral interventions (Fairburn, Shafran, & Cooper, 1999). Although these methods address important aspects related to eating pathology, high recidivism rates likely are an indication that there may be other

components that are essential to the long term treatment of eating disorders, thus validating the importance of a clinician's further consideration and integration of new and different techniques into their current treatment approach.

As suggested by this study, clinicians should consider broadening their approach to include more interpersonal, dialectical-behavioral, and experiential-focused techniques. For example, practitioners could recommend an eating disorder-focused interpersonal process group in conjunction with individual outpatient therapy. They could also work to integrate DBT and experiential techniques like mindfulness and psychodrama into their regular counseling sessions. Through the use of guided mindfulness meditations, clinicians could encourage clients to more fully reconnect with their bodies, thoughts, and emotions allowing them to draw their attention and consciousness to the present moment where they can find ways to be more effective in challenging their eating disorder. Similarly, through the use of psychodrama and other similar experiential activities, a clinician could facilitate the development of insight and encourage personal growth through the integration of cognitions, affect and behaviors in a tangible corrective emotional experience. As findings from the participants' feedback surveys suggest, these additional methods of therapy likely allow for the client to more effectively utilize their ability to live within the present moment in order to make positive changes for themselves and their future.

In their feedback responses, the program graduates also identified the importance of feeling safe within a treatment setting, highlighting the need for a non-judgmental and supportive atmosphere that was also able to provide a sense of challenge. While these factors may not require additional training or the implementation of specific techniques,

current practitioners would be wise to remember the importance placed on both the client's ability to feel safe in talking about their experience and their desire to work with someone that they are able to trust as they open up and explore the factors underlying their eating disorder.

Limitations and Directions for Future Research

While this study contributed to the current eating disorder treatment literature, it is also important to consider the study's limitations when interpreting the findings. First, the quasi-experimental pre-test / post-test methodological design of this study is a noteworthy limitation to the interpretation of the results. Although this study used both quantitative and qualitative measures directly reported by program participants, it did not employ a randomized control group design, or utilize a wait-list control group, and is therefore unable to rule out numerous threats to internal validity and external generalizability.

History, events outside of the study or between repeated measures of the EDI-3 (Garner, 2004), is a source of error that may have affected participants' responses to treatment (Elmes, Kantowitz & Roediger, 2006). The lack of a non-treatment control group makes it more difficult to rule out the impact of these extraneous events, as there is no basis for comparison between those who received treatment and those who did not. The fact that the data was collected over a five-year period of time, and that individual participants only participated in six-month periods of treatment across these five years, increases the likelihood of extraneous events that may have influenced participants' results. A relevant example of this would be the particular time of year or season in which the IOP was attended. While at first this may not seem like a significant

consideration, it is important to remember that the age of the participants places them mostly within a college-age population. Even though the IOP runs at night, program participation during the academic school year and individual participants' academic course load may interfere with the ability for participants to fully attend to the treatment regimen. Unfortunately, as part of the de-identification process, data about the timing of program participation was not provided. By using a randomized design with a wait-listed control group, error from this and similar confounding factors could have been identified and more easily corrected for, without compromising participant identity.

Next it is important to consider the possible error associated with regression to the mean, which is the tendency for extreme scores to approach a more normalized level when repeated testing is conducted. The regression to the mean phenomenon is often a result of influential chance factors that are present at the time of measure administration, and that often correct themselves as measures are repeatedly administered over time (Elmes, Kantowitz & Roediger, 2006). This factor is of particular concern to this study, given that there was no control group available for comparison and that the measure was only administered at two separate time points, compromising internal validity and reducing the ability to account for this source of variation in reporting. Future studies with this population should consider integrating not only a control group, but also administering measures of client progress repeatedly and more regularly throughout the program, and even at six-month intervals past program completion. The inclusion of these additional assessment points could not only decrease error associated with regression to the mean, they may also provide additional insight into both the rate of

symptom reduction and long term sustainability of positive changes made by the program graduates.

The self-report nature of the data also likely introduced limitations into the validity of the data collected. As Lincoln and Guba (1985) discussed, when collecting both quantitative and qualitative data, it is important to use triangulation procedures in order to achieve multiple reference points for comparison. By obtaining these multiple perspectives, it is hoped that the researcher could reduce self-report biases introduced by factors such as pressures of social desirability or even malingering. Future studies might address this limitation by using supplementary measures of eating disorder symptomatology or by integrating measures that can be completed by outside sources such as the program staff, psychiatrist, or physicians.

An additional limitation of the self-report nature of this study is the ability to interpret the themes present in the feedback survey as direct evidence of important factors of change. While the survey may have provided the opportunity for clients to provide their perspectives on helpful components of the program, their feedback is purely anecdotal and thus limits our ability to make direct conclusions as to actual mechanisms of change present within the treatment program. Future studies looking to more directly assess treatment effectiveness might also work to explore the individual techniques integrated within this treatment program in order to establish a clearer understanding of how each of them might influence change within the participants.

External validity is another limitation of concern. A number of factors such as treatment center location, cost of treatment, IOP program timing, and perceived program fit, likely contributed to biases in participant self-selection into and out of this treatment

program. One clear example of participant self-selection out of the program is seen within the data collected about program non-completers. Four non-graduates reported specifically choosing to leave the program early because of program fit concerns. Unfortunately detailed information was not provided that may have improved understanding of how the program did not feel like the appropriate fit for these particular participants. These self-selection factors, in addition to the non-random design of sample selection used in this study, impact the ability to generalize study results to the broader population of individuals with eating disorders.

This study's small participant sample also introduced noteworthy limitations into the external generalizability of results. One unfortunate, yet inherent, difficulty in most eating disorder research is the general lack of availability of a large number of research participants. Although the overall sample size in this study was sufficient to find significant results across the broad spectrum of eating disorder diagnostic groups, there were not enough participants in each category (AN, BN or EDNOS) in order to analyze differences between the diagnostic groups. While results demonstrated significant improvements for all of the program graduates regardless of diagnosis, the ability to investigate differential changes within diagnostic groups is important for establishing empirically supported treatments for each diagnostic category. This is particularly relevant given the presence of empirically supported treatments for bulimia nervosa and binge eating disorder, but the almost total lack of empirical support for the treatment of anorexia nervosa (Sullivan, 2002). Future research could work to address this limitation by incorporating a larger number of participants from each diagnostic group and then

working to assess differences between the groups as they progress through the treatment program.

The fact that the participant sample was both small and mostly female also presented limitations in the ability to understand the impact of the treatment program on a multicultural and gender-rich client population. This was further complicated by the lack of demographic information provided by the La Luna Center about the participant sample. This limitation restricts the ability to generalize the results of this study to broader populations of men and women, including those from different ethnic backgrounds, different socio-economic classes, and potentially even younger age groups. Future studies should work to include a larger variety of participants in order to examine how men, women and children from a wide variety of cultural groups may respond differently to this and other IOP treatment programs.

While the methodological design of this study presents a number of limitations in the ability to directly evaluate the effectiveness of this treatment modality across eating disorder populations, results do provide compelling support for a theoretically integrated group-based approach to eating disorder treatment. Given the current paucity in research demonstrating effective practices for treatment of these disorders (Sullivan, 2002; Wilson, Grilo, & Vitousen, 2007), further investigation of this particular program's effectiveness is warranted. However, future researchers would be wise to consider using a randomized control group experimental design in order to address a number of the limitations present in this study. Furthermore, given the high recidivism rates associated with eating disorders (Sullivan, 2002), additional measures of eating disorder symptomatology should also be integrated at regular points throughout treatment and at

designated post-treatment follow up times. It is hoped that these additional measures would provide important insight into rate of symptom reduction and long-term effectiveness of this particular treatment methodology. Finally, it is hoped that future researchers would explore this treatment's effectiveness within specific eating disorder diagnoses and across a larger and more diverse sample of participants.

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Table 1

Graduate and Non-Graduate Sample Demographics

Variable			*N* (%)
Graduate			33 (67.5%)
	Gender		
		Male	2 (6%)
		Female	31 (94%)
	Age		
		18-28	27 (81.8%)
		29-39	6 (18.2%)
	Diagnosis		
		Anorexia Nervosa Restricting Type	7 (21.2%)
		Anorexia Nervosa Binge/Purge Type	4 (12.1%)
		Bulimia Nervosa	9 (27.3 %)
		Eating Disorder Not Otherwise Specified	13 (39.4%)
	Pre-BMI		
		< 18.49	10 (30.3%)
		18.5 - 24.9	16 (48.5%)
		>25	6 (18.2%)
		Missing data	1 (3%)
	Post-BMI		
		< 18.49	4 (12.1%)
		18.5 - 24.9	20 (60.6%)
		>25	6 (18.2%)
		Missing data	3 (9.1%)
Non-Graduate			16 (32.5%)
	Gender		
		Male	0 (0%)
		Female	16 (100%)
	Age		
		18-28	14 (87.5%)
		29-39	2 (12.5%)
	Diagnosis		
		Anorexia Nervosa Restricting Type	4 (25%)
		Anorexia Nervosa Binge/Purge Type	0 (0%)
		Bulimia Nervosa	9 (56.2%)
		Eating Disorder NOS	3 (18.8%)
	Pre-BMI		
		< 18.49	6 (37.5%)
		18.5 - 24.9	10 (62.5%)
		>25	0 (0%)
		Missing data	0 (0%)
	Reason for Leaving the Program		
		Higher Level of Care	10 (62.5%)
		Program Fit (i.e. personal preference, substance use)	4 (25%)
		Left to Move for School	1 (6.3%)
		Poor Attendance	1 (6.3)

Table 2

Scale Reliabilities

Scales	α	Number of Scale Items
Drive For Thinness	.86*	7
Bulimia	.90*	8
Body Dissatisfaction	.93*	10
Eating Disorder Risk Composite	.91*	24
Low Self Esteem	.90*	6
Personal Alienation	.76*	7
Ineffectiveness Composite	.92*	13
Interpersonal Insecurity	.81*	7
Interpersonal Alienation	.79*	7
Interpersonal Problems Composite	.86*	14
Interoceptive Deficits	.87*	9
Emotional Dysregulation	.68	8
Affective Problems Composite	.86*	17
Perfectionism	.77*	6
Asceticism	.69	7
Overcontrol Composite	.81*	13
Maturity Fears	.84*	8
General Psychological Maladjustment Composite	.94*	65

Note. * = meets minimum requirements for inclusion in study.

Table 3

Independent Samples t-test

	Group			
	Graduate	Non-Graduate	*t*	*df*
Drive for Thinness	48.06	47.44	.14	23.28
	(11.48)	(15.39)		
Bulimia	54.70	47.19	2.34*	23.28
	(12.46)	(9.49)		
Body Dissatisfaction	47.33	47.19	.05	23.28
	(11.23)	(10.37)		
Eating Disorder Risk Composite	49.18	45.25	1.09	23.28
	(12.26)	(11.69)		
Low Self Esteem	49.55	50.38	-.33	23.28
	(9.40)	(7.68)		
Personal Alienation	49.70	50.19	-.21	23.28
	(7.95)	(7.64)		
Interpersonal Insecurity	49.42	47.63	.79	23.28
	(8.83)	(6.65)		
Interpersonal Alienation	51.91	52.06	-.06	23.28
	(8.82)	(8.64)		
Interoceptive Deficits	49.67	50.31	-.23	23.28
	(10.03)	(8.97)		
Perfectionism	50.79	52.06	-.45	23.28
	(8.47)	(9.73)		
Maturity Fears	47.39	47.88	-.21	23.28
	(7.87)	(7.22)		
Ineffectiveness Composite	48.82	49.75	-.54	23.28
	(9.65)	(7.14)		
Interpersonal Problems Composite	49.61	49.44	.07	23.28
	(9.96)	(7.75)		
Affective Problems Composite	48.36	48.50	-.05	23.28
	(10.01)	(8.21)		
Overcontrol Composite	48.97	48.94	.01	23.28
	(9.42)	(6.72)		
General Psychological Maladjustment Composite	47.73	47.63	.04	23.28
	(9.15)	(6.77)		

Note. * = $p \leq .05$. Equal Variances are Not Assumed. Standard Deviations appear in parentheses below means.

Table 4

Graduate EDI-3 pre and post dependent t-test scores

Scale	Mean	SD	*t*	*df*	Range
Drive For Thinness					
Pre	48.06	11.48	6.81**	32	Typical Clinical
Post	38.18	13.45			Low Clinical
Bulimia					
Pre	54.70	12.46	5.23**	32	Typical Clinical
Post	42.85	9.26			Low Clinical
Body Dissatisfaction					
Pre	47.33	11.23	5.11**	32	Typical Clinical
Post	39.52	11.78			Low Clinical
Eating Disorder Risk Composite					
Pre	49.18	12.26	6.74**	32	Typical Clinical
Post	35.48	13.07			Low Clinical
Low Self Esteem					
Pre	49.55	9.40	5.88**	32	Typical Clinical
Post	39.24	9.87			Low Clinical
Personal Alienation					
Pre	49.70	7.95	5.90**	32	Typical Clinical
Post	39.94	9.66			Low Clinical
Interpersonal Insecurity					
Pre	49.42	8.83	6.24**	32	Typical Clinical
Post	41.76	7.01			Low Clinical
Interpersonal alienation					
Pre	51.91	8.82	3.86*	32	Typical Clinical
Post	45.03	9.75			Typical Clinical
Interoceptive Deficits					
Pre	49.67	10.03	6.46**	32	Typical Clinical
Post	38.97	7.11			Low Clinical
Perfectionism					
Pre	50.79	8.47	2.96*	32	Typical Clinical
Post	46.85	8.30			Typical Clinical
Maturity Fears					
Pre	47.39	7.87	4.34**	32	Typical Clinical
Post	42.76	6.74			Low Clinical
Ineffectiveness					
Pre	48.42	9.65	5.78**	32	Typical Clinical
Post	38.42	9.97			Low Clinical
Interpersonal Problems Composite					
Pre	49.61	9.96	4.74**	32	Typical Clinical
Post	42.12	8.91			Typical Clinical
Affective Problems Composite					
Pre	48.36	10.01	5.81**	32	Typical Clinical
Post	39.82	7.83			Low Clinical
Overcontrol Composite					
Pre	48.97	9.42	4.78**	32	Typical Clinical
Post	41.39	9.15			Low Clinical
General Psychological Maladjustment Composite					
Pre	47.73	9.15	5.50**	32	Typical Clinical
Post	37.45	10.27			Low Clinical

Note * = $p \leq .01$, ** = $p \leq .001$

Table 5

Results from Constant Comparison Analysis

Personal Factors Category	*N*
Application of skills and new behaviors	
Practicing mindfulness while eating	11
Tracking of hunger and hunger and fullness	10
Saying struggles out loud to others	8
Plan ahead for meals	3
Use of DBT skills	2
Challenging food rules	2
Building relationships	2
Development of internal connection	
Tuning into body signals and urges	14
Developing a connection to hunger and fullness cues	10
General awareness	4
Feeling centered	3
Paying attention to thoughts	2
Connecting with themselves	2
Learning how to relax body	2
Personal Growth and learning	
Identifying eating patterns and triggers	11
Learning hidden facts about self	8
Developing a creative side	2

Program Factors Category	*N*
Program Environment	
Safety	26
Safety	8
Openness	4
Support	4
Non-judgmental atmosphere	4
Comfort	2
Trust	2
Relaxed atmosphere	2
Staff	9
Involvement with others	7
Challenge	5
Flexibility	4
Program Structure	
Activities	30
Psychodrama	14
Mindfulness	6
Art	4
Structured meals	2
Acupuncture	1
Check-ins	1
Reading stores	1
Cards	1
Printed handouts	7
Small group size	2
Education	
DBT skills	15
General skills	8
Assertiveness	3
Urge Surfing	2
Emotions	1
Thought challenge	1
Nutrition education	7

Appendix I

Diagnostic Criteria for Anorexia Nervosa

A. Refusal to maintain body weight at or above a minimally normal weight for age and height (e.g., weight loss leading to maintenance of body weight less than 85% of that expected; or failure to make expected weight gain during period of growth, leading to body weight less than 85% of that expected).

B. Intense fear of gaining weight or becoming fat, even though underweight

C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.

D. In postmenarcheal females, amenorrhea, i.e., the absence of at least three consecutive menstrual cycles. (A woman is considered to have amenorrhea if her periods occur only following hormone, e. g., estrogen, administration.)

Specify type:

Restricting Type: during the current episode of Anorexia Nervosa, the person has not regularly engaged in binge-eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics or enemas)

Binge-Eating / Purging Type: during the current episode of Anorexia Nervosa, the person has regularly engaged in binge-eating or purging behavior(i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas)

From American Psychiatric Association (2000). *Diagnostic and Statistical Manual (Fourth Edition ed. Text Revision).* Washington D.C.: American Psychiatric Association. pp. 589

Appendix II

Diagnostic Criteria for Bulimia Nervosa

A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:

   1. Eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time under similar circumstances
   2. A sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating)

B. Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas, or other medications; fasting; or excessive exercise.

C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least twice a week for 3 months.

D. Self-evaluation is unduly influenced by body shape and weight.

E. The disturbance does not occur exclusively during episodes of Anorexia Nervosa.

Specify if:

Purging Type: during the current episode of Bulimia Nervosa, the persona has regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics, or enemas

Nonpurging Type: during the current episode of Bulimia Nervosa, the person has used other inappropriate compensatory behaviors, such as fasting or excessive exercise, but has not regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics or enemas

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From American Psychiatric Association (2000). *Diagnostic and Statistical Manual (Fourth Edition ed. Text Revision).* Washington D.C.: American Psychiatric Association. pp. 594

Appendix III

Diagnostic Criteria for Eating Disorder Not Otherwise Specified

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The Eating Disorder Not Otherwise Specified category is for disorders of eating that do not meet the criteria for any specific Eating Disorder. Examples include:

1. For females, all of the criteria for Anorexia Nervosa are met except that the individual has regular menses.
2. All of the criteria for Anorexia Nervosa are met except that, despite significant weight loss, the individual's current weight is in the normal range.
3. All of the criteria for Bulimia Nervosa are met except that the binge eating and inappropriate compensatory mechanisms occur at a frequency less than twice a week or for a duration of less than 3 months.
4. The regular use of inappropriate compensatory behavior by an individual of normal body weight after eating small amounts of food (e.g. self-induced vomiting after the consumption of two cookies)
5. Repeatedly chewing and spitting out, but not swallowing, large amounts of food.
6. Binge-eating disorder: recurrent episodes of binge eating in the absence of the regular use of inappropriate compensatory behaviors characteristic of Bulimia Nervosa

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From American Psychiatric Association (2000). *Diagnostic and Statistical Manual (Fourth Edition ed. Text Revision).* Washington D.C.: American Psychiatric Association. pp. 594-595.

Appendix IV

EDI – 3

INSTRUCTIONS

First, write our name and the date on the EDI-3 Answer Sheet. Your ratings on the items below should be circled on the Answer Sheet. The items ask about your attitudes, feelings, and behavior. Some of the items relate to food or eating; other items ask about your feelings about yourself.

For each item, decide if the item is true about you ALWAYS (A), USUALLY (U), OFTEN (O), SOMETIMES (S), RARELY (R), or NEVER (N). Circle the letter that corresponds to your rating on the Answer Sheet. For example, if your rating for an item is OFTEN, you would circle the "O" for that item on the Answer Sheet.

Respond to all of the items, making sure that you circle the letter for the rating that is true about you. DO NOT ERASE! If you need to change an answer, mark an "X" through the incorrect letter, and then circle the correct one.

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1. I eat sweets and carbohydrates without feeling nervous.
2. I think that my stomach is too big.
3. I wish that I could return to the security of childhood.
4. I eat when I am upset.
5. I stuff myself with food.
6. I wish that I could be younger.
7. I think about dieting.
8. I get frightened when my feelings are too strong.
9. I think that my thighs are too large.
10. I feel ineffective as a person.
11. I feel extremely guilty after overeating
12. I think that my stomach is just the right size.
13. Only outstanding performance is good enough in my family.
14. The happiest time in life is when you are a child.
15. I am open about my feelings.
16. I am terrified of gaining weight.

17. I trust others
18. I feel alone in the world.
19. I feel satisfied with the shape of my body.
20. I feel generally in control of things in my life.
21. I get confused about what emotion I am feeling.
22. I would rather be an adult than a child.
23. I can communicate with others easily.
24. I wish I were someone else.
25. I exaggerate or magnify the importance of weight.
26. I can clearly identify what emotion I am feeling.
27. I feel inadequate.
28. I have gone on eating binges where I felt that I could not stop.
29. As a child, I tried very hard to avoid disappointing my parents and teachers.
30. I have close relationships.
31. I like the shape of my buttocks
32. I am preoccupied with the desire to be thinner.
33. I don't know what is going on inside me.
34. I have trouble expressing my emotions to others.
35. The demands of adulthood are too great.
36. I hate being less than best at things.
37. I fell secure about myself.
38. I think about bingeing (overeating).
39. I feel happy that I am not a child anymore.
40. I get confused as to whether or not I am hungry
41. I have a low opinion of myself.
42. I feel that I can achieve my standards.
43. My parents have expected excellence of me.
44. I worry that my feelings will get out of control.
45. I think my hips are too big.
46. I eat moderately in front of others and stuff myself when they're gone.
47. I feel bloated after eating a normal meal.
48. I feel that people are happiest when they are children.
49. If I gain a pound, I worry that I will keep gaining.
50. I feel that I am a worthwhile person.
51. When I am upset, I don't know if I am sad, frightened, or angry.
52. I feel that I must do things perfectly or not do them at all.
53. I have the thought of trying to vomit in order to lose weight.
54. I need to keep people at a certain distance (feel uncomfortable if someone tries to get too close).
55. I think that my thighs are just the right size.

56. I feel empty inside (emotionally).
57. I can talk about personal thoughts and feelings.
58. The best years of your life are when you become an adult.
59. I think my buttocks are too large.
60. I have feelings I can't quite identify.
61. I eat or drink in secrecy.
62. I think that my hips are just the right size.
63. I have extremely high goals.
64. When I am upset, I worry that I will start eating.
65. People I really like end up disappointing me.
66. I am ashamed of my human weaknesses.
67. Other people would say that I am emotionally unstable.
68. I would like to be in total control of my bodily urges.
69. I feel relaxed in most group situations.
70. I say things impulsively that I regret having said.
71. I go out of my way to experience pleasure.
72. I have to be careful of my tendency to abuse drugs.
73. I am outgoing with most people.
74. I feel trapped in relationships.
75. Self-denial makes me feel stronger spiritually.
76. People understand my real problems.
77. I can't get strange thoughts out of my head.
78. Eating for pleasure is a sign of moral weakness.
79. I am prone to outbursts of anger or rage.
80. I feel that people give me the credit I deserve.
81. I have to be careful of my tendency to abuse alcohol.
82. I believe that relaxing is simply a waste of time.
83. Others would say that I get irritated easily.
84. I feel I am losing out everywhere.
85. I experience marked mood shifts.
86. I am embarrassed by my bodily urges.
87. I would rather spend time by myself than with others.
88. Suffering makes you a better person.
89. I know that people love me.
90. I feel like I must hurt myself or others.
91. I feel that I really know who I am.

Appendix V

Program Feedback Form

Monday: Experiential

What did you find the most helpful about the experiential group?

What did you find the least helpful about the experiential group?

What would you change about the experiential group?

Wednesday: Life Skills

What did you find the most helpful about the life skills group?

What did you find the least helpful about the life skills group?

What would you change about the life skills group?

Please rate your usage of the following skills and exercises on a scale from 1 – 5, 1 being never and 5 very often. Circle the zero if you do not remember the skill.

Observe / Describe	0	1	2	3	4	5
Mindful Eating	0	1	2	3	4	5
Urge Surfing	0	1	2	3	4	5
Wise Mind	0	1	2	3	4	5
Observing and Describing Emotions	0	1	2	3	4	5
Distraction	0	1	2	3	4	5
Self-Soothing	0	1	2	3	4	5
Challenging Cognitive Distortions	0	1	2	3	4	5
Positive Self-Talk	0	1	2	3	4	5

Assertiveness Skills	0	1	2	3	4	5
Drama Triangle	0	1	2	3	4	5

Thursday: Process

What did you find the most helpful about the process group?

What did you find the least helpful about the process group?

What would you change about the process group?

Group Meal:

What did you find the most helpful about the group meal?

What did you find the least helpful about the group meal?

What would you change about the meal?

AAT:

What did you find the most helpful about AAT?

What did you find the least helpful about AAT?

Did you feel an aversion to AAT at the beginning of the program? If so, what helped you to overcome that aversion?

At this point what roles does AAT have for you? Will you continue to mentally monitor?

Body Connection:

What about body connection was helpful for you?

What about body connection was challenging?

Please rate your satisfaction with the following body connection exercises on a scale from 1 – 5, 1 being very unsatisfied and 5 very satisfied. Circle zero if you do not remember the exercise

Yoga	0	1	2	3	4	5
Breathing	0	1	2	3	4	5

Movement / Dance	0	1	2	3	4	5
Mindfulness Exercises	0	1	2	3	4	5

Nutrition:

What did you find the most helpful about nutrition?

What did you find the least helpful about nutrition?

What would you change about nutrition?

Aftercare Group:

Are you interested in attending the aftercare group?

If so, how often would you like for the group to be offered?

If someone were entering La Luna Center's Intensive Outpatient Program what would be your advice to them?

Please add additional suggestions / comments here: