The Creation of Art Books with Adolescents Diagnosed with an Eating Disorder: Effectiveness, Self-Esteem, and Related Factors

Eileen Chaves
University of Denver

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THE CREATION OF ART BOOKS WITH ADOLESCENTS DIAGNOSED WITH AN 
EATING DISORDER: EFFECTIVENESS, SELF-ESTEEM, AND RELATED 
FACTORS

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Eileen Chaves

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Advisor: Cynthia McRae, Ph.D.
ABSTRACT

This pilot study undertook a mixed methods exploration of the interaction of art therapy and self-esteem in an adolescent eating disorder population. Using therapeutic art books in a group format, adolescents created art about their feelings, their eating disorder, or whatever else they deemed important. This art technique is relatively new and novel as an art therapy intervention. Therefore, this study aimed to look at the technique's effectiveness at decreasing participants' negative mood states and investigated the technique's ability to affect participants' perceptions of their self-esteem. Measures of global self-esteem and art therapy related self-esteem were measured using the Rosenberg Self-Esteem Scale and the Hartz Art Therapy Self-Esteem Scale, respectively. In addition, the Subjective Units of Distress (SUDS) scale and visual analogue scale (VAS) of four negative mood states commonly found in individuals with eating disorders were also measured. All participants were interviewed about their experience using the therapeutic art book technique at the conclusion of the study. It was found that global self-esteem did not change over the four week study period. Self-esteem related to art therapy trended upward, though still did not show statistically significant change. The SUDS and VAS showed the greatest change after the first group session. From participant interviews, four major themes were identified including art as distraction, significant difference from written journal, increased understanding of others, and art
expressing more than words. As this was a pilot study, future research ideas using this particular art therapy technique were presented.
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CHAPTER ONE

Introduction

"This was my book. Now it's my recovery process."
- Ashley (pseudonym), age 20

Art therapy is the medicinal use of creative arts to improve and enhance an individual's physical, mental, emotional, and spiritual well-being (Frisch, Franko, & Herzog, 2006). It has been used clinically for over a century to treat various medical and mental health conditions and with many different populations. With individuals with eating disorders, art therapy has been used to provide patients with the opportunity to become more sensitive to their inner selves (Poldinger, Walter, & Krambeck, 1987). It has also been used to promote new insight and awareness for eating disorder patients through self-expression; it has provided patients with a sense of self-efficacy and mastery; and has given them a safe space in which they can deal with issues commonly experienced by eating disorders patients, such as anxiety, low self-esteem, depression, and perfectionism (Betts, 2008; Frisch, et al, 2006; Rabin, 2003). While art therapy has been researched both in terms of its effectiveness with the eating disorder population and with other populations, much of the published work in this area consists of case studies and theoretical discussions, with little emphasis on outcomes (Reynolds, Nabors, & Quinian, 2000).
The use of art therapy to increase self-esteem has been explored both in a theoretical sense and experimentally. In a survey of published empirical research evaluating the effectiveness of art therapy, Reynolds, Nabors, and Quinlan (2000) reviewed five studies that specifically documented a significant increase in self-esteem after participants received a course of art therapy treatment. Out of these studies, several of these involved the use of art therapy to increase self-esteem with school aged children or adolescents. For example, in a study by White and Allen (1971), art therapy was related to significant improvement in self-esteem in a sample of boys who had recently completed the sixth grade. A study conducted by Chin (1980) found a significant change in self-esteem and social skills in "educationally underserved" adolescents after they had completed a four week art therapy program. Franklin (1992) wrote theoretically about the use of art therapy to improve individuals' self-esteem. He stated that art therapists have intuitively observed that a strong connection exists between art therapy and the “art making process” and self-esteem. Franklin (1992) continued by writing about a number of important therapeutic processes that he believed occur for individuals when creating art which help to increase their self-esteem, such as validating and empowering the uniqueness of the individual, helping the individual deal with difficult emotions in a safe environment, creating therapeutic relationships between the individual, the therapist, and the art materials, and helping the client feel empowered.

In the eating disorder population, increasing self-esteem is a very important therapeutic element of treatment. Vanderlinden, Buis, Pieters, and Probst (2007) found that when patients who were diagnosed and were being treated for eating disorders were...
surveyed about what they thought the most important element of their treatment should be, patients listed "improving self-esteem" to be the most important therapeutic "ingredient" necessary for their recovery. In the same study, the researchers also surveyed therapists who specialized in the treatment of eating disorders and found that therapists also overwhelmingly believed that "improving self-esteem" was the most important therapeutic element for the patients' recovery process. Shea and Pritchard (2007) examined predictors of disordered eating and found that low self-esteem was the secondary predictor of future eating disorder pathology, second only to escape coping. The researchers wrote that "self-esteem does indeed contribute to certain eating pathologies and thus, the status of one's health" (Shea & Pritchard, 2007, p. 1535). In a longitudinal study of women conducted by Gilbert and Meyer (2005), results revealed that low self-esteem predicted an increase in bulimic attitudes and depression. A study conducted in Denmark indicated that women suffering from an eating disorder had lower self-esteem, used more inefficient coping methods, and were exposed to more stress than those who were not suffering from an eating disorder (Blaase & Elklit, 2001).

At The Children's Hospital in Aurora, Colorado, a relatively new art therapy intervention is being used with adolescents in the Eating Disorders Unit (EDU) in an attempt to help the patients express themselves, examine their feelings, and raise their self-esteem. This intervention is based upon the adolescents creating therapeutic art books during a once a week, three and a half hour group. See Appendix G for an example of a therapeutic art book created by this researcher while observing in the art group. While creating art books is not a new art form, this particular use of art book
creation in relation to therapy appears to be a very new art therapy intervention. Although several examples of the creation of books can be found in the psychological literature, these books are not "therapeutic art books" per se. Instead, examples of bookmaking in the literature include the creation of life books with various populations for a number of purposes. Life books tend to be used either with children and adolescents in the foster care system, children and adolescents who are about to be adopted, or elderly individuals in nursing care facilities. Backhaus (1984), who studied the use of life books with children in the foster care system, defines a life book as "an individually made book covering the child's life from birth to present, written in the child's own words" (p. 551). When the child is in the foster care system, the book "includes a narrative describing what has happened to the child, when, and why, as well as what the child's feelings are about what has happened." (p. 551). While life books do incorporate the child or adolescent's drawings and photos into the books, they differ from the therapeutic art books made in the art therapy groups with adolescents from the EDU in that they also incorporate documents that may be important for the children if they are adopted or placed elsewhere, such as the child's birth certificate, genogram, and report cards (Backhaus, 1984). The books seem to be more a therapeutic "scrapbook" of the child's life and less a therapeutic art creation. It is interesting to note that in her study regarding the use of life books with children in the foster care, Backhaus (1984) did find that the use of life books increased children's and adolescents' self-esteem by helping them to understand that things they had blamed themselves for had been beyond their control.
Statement of the Problem

Two distinct questions have guided the focus of this study. The first question deals with the effectiveness of the therapeutic art bookmaking intervention. Is this an effective intervention for adolescents diagnosed and being treated for eating disorders? Does this intervention help to increase participants' self-esteem and elevate their mood? The second question deals with the participants' experience while in the group. How does the creation of the therapeutic art books affect the participants' lives and recovery processes? What occurs for them when they are making the books and what do they take from this experience into other areas of their lives? While results from several studies have indicated that art therapy does have a significant impact on self-esteem, there is a very limited body of research about this phenomenon (Green, Wehling, & Talsky, 1987; Hartz & Thick, 2005; Omizo & Omizo, 1989; Tibbets & Stone, 1990; White & Allen, 1971). Further study is needed in order to determine the effects of art therapy on self-esteem, the general effectiveness of this art therapy intervention with adolescents diagnosed with eating disorders, and the experience of participants in this group.

Justification of Study

Given the lack of research investigating the effects of art therapy on self-esteem, this study will examine if and how this art therapy intervention affects participants' self-esteem. As the improvement of self-esteem has been found to be a necessary therapeutic "ingredient" in the recovery process of individuals diagnosed with eating disorders (Vanderlinden, et al., 2007), and as low self-esteem has been found to be a predictor of eating disorder pathology (Shea & Pritchard, 2007; Gilbert & Meyer, 2005; Blaase &
Elklit, 2001), this art therapy intervention and its affect on participants' self-esteem will be investigated using both quantitative measures (the Rosenberg Self-Esteem Scale and the Hartz Art Therapy Self-Esteem Questionnaire) and qualitative interviews. Also, as much of the current published literature on art therapy focuses on case studies or theoretical concepts and is not focused on outcomes, it is important to look at the effectiveness of this particular art therapy intervention using a variety of measures, such as a Subjective Units of Distress Scale (SUDS) and scales measuring affective states before and after the intervention has taken place.

Hypotheses

The hypotheses for the quantitative questions of the study are as follows:

1. Participants' self-esteem increases after participating in the therapeutic art book group. This will be evidenced by an increase in self-esteem scores on the Rosenberg Self-Esteem Scale and the Hartz Art Therapy Self-Esteem Questionnaire (HARTZ AT-SEQ).

2. Creating therapeutic art books will improve participants' affective states. This will be measured using visual analog scales of affective states most commonly seen in individuals with eating disorders and a SUDS measurement administered both at the beginning and the end of each group session.

Research Questions

Qualitative Questions:

1. How do participants describe the process of making a therapeutic art book? Does this process appear to impact the self-esteem of an adolescent individual
1. Are you diagnosed with an eating disorder?

2. What occurs, emotionally and cognitively, for an adolescent individual diagnosed with an eating disorder while making a therapeutic art book?

3. Does the creation of a therapeutic book impact the adolescent's recovery process?

**Summary**

This chapter introduced the focus of the proposed study: the examination of the effectiveness of an art therapy intervention to increase the self-esteem of adolescents diagnosed with eating disorders, to improve participants' affective states, and to investigate what occurs for participants during this intervention in regards to their recovery and self-esteem. Two hypotheses and three research questions were developed to guide the present study. The second chapter presents a review of the literature regarding art therapy, self-esteem, and eating disorders. Definitions and characteristics of the various types of eating disorders are also be presented.
CHAPTER TWO

Literature Review

Eating can be disordered in a number of ways. Many illnesses lead to a reduction in eating and some can lead to overeating. It can also be argued that what we eat can make us ill, such as overeating and obesity leading to heart disease, high blood pressure, and diabetes. As well as physical health, eating can also be affected by psychological factors, such as depression or anxiety. Thus, while disturbance in eating behavior occurs diversely, the term "eating disorders" has come to have a relatively narrowly defined meaning, particularly within the field of mental health. Rather than referring to all disordered eating behavior, the term has come to be applied primarily to a spectrum of disorders associated with the avoidance of fatness and the pursuit of thinness (Button, 1993).

The American Psychological Associations' (APA) Diagnostic and Statistical Manual IV-R (DSM-IV-TR) lists several clinical eating disorders (2000). These include anorexia nervosa (AN), bulimia nervosa (BN), and eating disorder not otherwise specified (ED-NOS). A fourth eating disorder, binge eating disorder (BED), has been placed in the DSM-IV's appendix as a disorder needing further study and evaluation. Each disorder will be subsequently defined.
Anorexia Nervosa (AN)

Anorexia nervosa (AN) is characterized by an intense fear of gaining weight, an intense preoccupation with food and dieting, and very low body weight (Cassell & Gleaves, 2000). The central feature of anorexia nervosa is the overriding pursuit of thinness. There are generally two main types of AN. One is characterized by strict dieting and exercising; the other type includes binging and purging. The restrictor anorexic will refuse to eat normal amounts of food and will restrict her or his caloric intake to about 600-800 calories per day, resulting in a loss of 25% or more of body weight. In extreme cases, the weight loss may be as high as 50% (Cassell & Gleaves, 2000). For the binging and purging anorexic, binging is the act of eating abnormally large amounts of food in a short period of time while purging is the use of vomiting or other methods, such as laxatives, to empty the stomach (Brooke, 2008).

Historically, anorexia nervosa has affected primarily women, with 90-95% of anorexics being female. In 85% of cases, the onset of anorexia occurs between the ages of 13 and 20. It is estimated that in the United States, between one and two females in late adolescence and early adulthood of every 200 is starving herself (APA, 2000). The average prevalence rate for young females is 0.3% for anorexia nervosa, which translates to 8 reported cases per 100,000 persons (Van Hoeken, Seidell, & Hoek, 2003). Morbidity and mortality rates in anorexia nervosa are among the highest recorded for psychiatric disorders. The mortality rate of 6 to 18 percent is reported frequently in medical journals and, if accurate, would make anorexia the most lethal psychiatric illness (Cassell & Gleaves, 2000). Across multiple studies, mortality rates vary but on average there seems
to be approximately a one percent per year mortality rate. Over the last several decades, there has been much debate about the rising increase in anorexia nervosa cases. Since the 1970s, however, the number of incidences in AN cases has increased. From studies that have used long study periods, it can now be concluded that there is an upward trend in the incidence of anorexia nervosa since the 1950s. The increase is most substantial in females from the ages of 15-24. Lucas, Crowson, O'Fallon, and Melton (1999) found that the age-adjusted incidence rates of AN in females 15-24 years old showed a highly significant linear increasing trend from 1935 to 1989, with an estimated rate of increase of 1.03% per 100,000 persons per calendar year. In children aged 10-14 years old, females showed a rise in incidence for each decade since the 1950s. The rates for men and for women aged 25 and older have remained low (Van Hoeken, et. al, 2003).

While there is no known specific cause for anorexia nervosa, researchers do agree that this disease is most likely a negative response to a number of psychological, environmental, and physiological factors rather than a disease that can be traced to a single cause. Several potential causes of anorexia nervosa have been identified as: stressful life situations, adolescence, and culture (Cassell & Gleaves, 2000). Major life developments such as family conflict, change in schools, a family move, the loss of a boyfriend/girlfriend or significant other, and serious illness have all been known to be stressful and to have contributed to the development of anorexia nervosa. In other cases, less obvious stressors, such as a remark by a parent, friend, sibling, peer, or athletic coach about the female needing to lose weight or appearing "chubby" may contribute to the beginning of this disorder (Cassell & Gleaves, 2000). It has been hypothesized that AN
often begins in adolescence because it can be seen as a rejection of female sexuality brought on by the physical development associated with puberty. This can be explained as an attempt to retain "little girl" status by warding off the adolescent's physical development (Cassell & Gleaves, 2000). It has also been argued that AN is a rejection of the entire role of an adult, including the responsibilities, decision making, and sexual intimacy. To support this, Cassell and Gleaves (2000) noted that anorexics avoid intimacy, largely because of their fear of rejection over "mistakes" they might make.

With regards to culture, it was once thought that AN mainly affected women in Western society. However, current research has shown a trend towards AN becoming a global phenomena with women worldwide. A 1996 study of Chinese University of Hong Kong students by Lee and Lee found that Western patterns of body dissatisfaction and disordered eating attitudes are common among Chinese adolescent females. In Japan, eating disorders have been increasing steadily since the end of World War II. Beginning in 1970, cases of eating disorders began to emerge in psychological literature from Japan. Through the 1980s, documented cases began to grow, increasing twofold from the previous decade. In the 1990s, cases increased fourfold (Brooke, 2008). In Mexico, Bojorquez and Unikel (2004) found a dangerously high incidence in eating disorders among teenage girls. Using a sample of 458 girls, 27.9% were seriously concerned about weighing too much, 14.3% were dieting or fasting to lose weight, and 2.4% binged and vomited.

Anorexics tend to come from families placing a strong emphasis on food. The family may use food for purposes other than nourishment, such as to show love, caring,
to fill time, when facing stressful situations, or to keep the family together and "happy" (Cassell & Gleaves, 2000). With regards to families, it has been found that certain personality types seem to appear frequently among parents of anorexics. For example, mothers of anorexics tend to be more domineering, often intruding into the anorexic's hour-to-hour life. Mothers of anorexics also frequently suffer from depression and fathers are often described as "aloof or passive" (Cassell & Gleaves, 2000). Family features that are most likely to encourage anorexia are enmeshment, rigidity, overprotectiveness, and the inability to resolve conflicts within the family.

Treatment for AN has included various approaches, including psychoanalysis, supportive therapy, family therapy, behavior modification, cognitive therapy, pharmacotherapy, and self-help groups. Because anorexia nervosa patients differ widely in psychological, social, behavioral, and biological functioning, treatment centers most frequently offer integrated and multifaceted programs (Cassell & Gleaves, 2000). The physical as well as the psychological aspects of the disorder must be addressed in treatment. The physical aspects take precedence when the individual's weight is low and the patient continues to starve her/himself. In this case, the psychological aspects take precedence later, after weight concerns have been addressed and eating habits have been stabilized (Cassell & Gleaves, 2000). Length of hospitalization for AN patients usually varies between two to four months.

**Bulimia Nervosa**

Bulimia Nervosa (BN) is characterized by recurrent binge eating followed by some compensatory behavior, such as vomiting or the use of laxatives. Also
characteristic of this disorder is an intense preoccupation with body size and shape. Bulimics usually control their eating by keeping busy with other things, but during solitary leisure time they may eat to the point of exhaustion (Cassell & Gleaves, 2000). During a binge episode, large amounts of food may be eaten in excess at one time, with some bulimics averaging 20,000 calories daily. Some studies have shown the average binge to last approximately 1 1/4 hours and to include about 3,400 calories. The most salient feature of this disorder seems to be the feeling of lack of control that the bulimic individual has during a binge episode (Cassell & Gleaves, 2000). For individuals with BN, life often becomes dominated by the threat of eating too much and the fear of excess weight gain. Many people with BN may aspire to strict dieting but will "lose control" and engage in binging behavior (Button, 1993). Binging episodes are often followed by feelings of shame and disgust, which may last for hours or days and are typically followed by greater restraint or self-induced vomiting, large doses of laxatives, excessive exercise, or diuretics. As a result of this behavior, weight is often volatile, with swings in weight of 14-15 pounds or more (Button, 1993). Because of these weight swings, most bulimic individuals are at least average in weight and some are obese. The volatility in weight and eating behavior is often accompanied by a corresponding instability in mood. This may reach depressive proportions, as bulimia has often been associated with depression (Cooper & Fairburn, 1986).

Bulimia nervosa is said to be an epidemic in the United States, though it is harder to detect than anorexia because there are often no physical signs such as emaciation. Thus, the extent of this disorder is less clear than anorexia nervosa, though it has been
estimated that as many as 16 to 30 percent of all women may have practiced bulimic behaviors at some point in time to some degree (Cassell & Gleaves, 2000). As in AN, bulimics are usually female and the onset of the disorder often occurs between the ages of 13 and 20 years old, though the highest risk group is 20-24 year old females. The prevalence of BN among adolescents and young adult females is 1-3 percent. In a study by Soundy, Lucas, Suman, and Melton (1995), it was found that 26.5 females per 100,000 people have BN, while only 0.8 males per 100,000 people are affected, yielding a female to male ratio of 33:1. Bulimia nervosa has been called “the disease of success because the typical bulimic is a professional woman in her mid to late twenties, college educated, single, and working and living a large city” (Cassell & Gleaves, 2000, p. 45). The highest risk group for this disorder, 20-24 year olds, has been found to have a much higher prevalence than other age groups, at 82 per 100,000 people diagnosed with BN (Soundy et al., 1995).

It is more difficult to establish if cases of BN have been increasing or decreasing over time because until 1979, there was a general lack of criteria for this disorder. With the publication of the DSM-III, however, bulimia nervosa became an established disorder separate from AN. Before 1980, the term ‘bulimia’ in medical records designated symptoms of heterogeneous conditions manifested by overeating, but was not the syndrome of bulimia nervosa known today (Van Hoeken et al., 2003). Therefore, it is difficult to examine trends in the incidence of bulimia nervosa. However, several studies have been conducted to attempt to look at incidence rates of BN. Soundy et al. (1995) found yearly incidence rates rose sharply from 7.4 cases per 100,000 females in 1980 to
49.7 cases in 1983. After this time, the incidence rate was found to remain relatively constant at around 30 cases per 100,000 females. Turnbull, Ward, Treasure, Jick, and Derby (1996) found that BN has increased for women aged 10-39 years old from 14.6 cases per 100,000 in 1988 to around 51.7 cases in 1993. While many women do not fit the DSM-IV criteria for clinical bulimia nervosa, the prevalence of a subclinical BN is higher than that of the full-syndrome BN (Van Hoeken et al., 2003).

Like anorexia nervosa, no known specific causes for bulimia nervosa have been found. However, in a 1999 study conducted by Smith, Fairburn, and Cowen, it was found that a chemical malfunction in the brain, and not simply the desire to be excessively thin, may play a part in this disorder. It was found that lowered brain serotonin neurotransmissions may trigger some of the cognitive and mood disturbances associated with this disorder. Female recovered bulimics were more psychologically affected than other women who did not have a psychiatric disorder after being deprived of tryptophan, a neurotransmitter which plays an indirect role in appetite regulation. These women experienced a significant lowering of mood, increases in ratings of body image concern, and a subjective loss of control of eating following a depletion in the neurotransmitter tryptophan (Smith, Fairburn, & Cowen, 1999). Societal pressures may also play a role in the development of this disease. It has been found that a proportion of older as well as younger women see themselves as weighing more than they do and feel pressure regarding their weight. Researchers relate these feelings to the youth-oriented society found in the United States and the increased cultural pressures to be thin. Researchers believe that many women are trying to conform to an ideal body image that
is almost impossible to obtain without extreme unhealthy weight loss measures (Drewnowski, Yee, & Krahn, 1988).

Fewer studies have been conducted regarding the global prevalence of bulimia nervosa. However, LeGrange, Louw, Breen, and Katzman (2004) found that among young black and white females in South Africa, black females were as likely as white females to have eating disorders. The women in the study ranged from the age of 15 through 25. As opposed to self-starvation, the common disorder found among black South Africans was bulimia nervosa. The incidence of eating disorders in young girls from other African countries has been rarely reported and so is not known. LeGrange and colleagues (2004) found significantly greater eating disorder pathology in black high school students than in their white or mixed race counterparts. It has been suggested that this may be due in part to the rapid socio-political changes in South Africa which have challenged traditional gender roles leaving black women unprepared for their new roles and vulnerable to developing an eating disorder. It has been proposed that with the abolition of Apartheid in 1994, there is increased exposure to the Western culture and its ideals. In another study by Kusano-Schwartz and von Wietersheim (1995), women with bulimia nervosa in both Japan and Germany were compared with healthy control groups in both countries. It was found that the Japanese control group showed significantly higher values on almost all of the Eating Disorder Inventory (EDI-2) scales as compared with the German control group. The comparison of the German and Japanese BN patients’ scores on the EDI-2 showed that the Japanese women showed higher scores on three of the scales. The authors concluded that sociocultural factors, specifically the
dependence on social norms, may have contributed to the high EDI values in the

The role of the family is being looked at in order to determine if it plays any part
in the development of an individual's bulimia nervosa. Several studies have found an
increased frequency of BN in the first-degree biological relatives of individuals with BN.
Other studies have found that the parents of bulimic women are significantly older than
those of non-bulimic women at the time of the birth of their daughter (Cassell & Gleaves,
2000).

Like anorexia nervosa, treatment for bulimia nervosa has included various
approaches, such as psychoeducation, cognitive-behavioral therapy, pharmacotherapy,
insight-oriented therapy, and interpersonal therapy. Treatment of this disorder often
includes at least some psychoeducation, teaching the patient about the role of social and
biological factors that have contributed to her disease. Emphasis is placed on the dietary
side of the disorder and focuses on good nutrition, biological factors controlling weight,
and the effects of vomiting and purging (Button, 1993). The most common form of
treatment for BN is cognitive-behavioral therapy. This treatment includes interventions
such as self-monitoring and stimulus control to normalize eating behavior and cognitive
interventions to challenge the distorted thinking and belief systems of the individual
(Cassell & Gleaves, 2000). Antidepressant medication has also been found to be helpful
in reducing binging and purging in bulimic individuals in 60-70% of clients. Medication
has proven to be very effective in individuals who also have a comorbid mood disorder as
well (Button, 1993).
Binge-Eating Disorder

Binge-eating disorder (BED) is defined by recurrent binge eating without the regular use of inappropriate compensatory weight control methods that are a defining feature of bulimia nervosa. BED also includes several behavioral indicators such as the feeling of loss of control while overeating, binges that occur regularly (at least two days a week), are persistent (for at least six months), and are associated with emotional distress. Individuals with BED are typically characterized by higher levels of overevaluation of shape and/or weight compared with overweight or obese patients who do not have BED (Wilson, Grilo, & Vitousek, 2007).

Binge-eating disorder is currently listed as a research category in the DSM-IV. As such, it is currently being investigated to determine its nosological status. However, from current research it does appear that BED is a stable construct that is associated with heightened psychiatric comorbidity, psychological impairment, and medical problems (Grilo, Hrabosky, White, Allison, & Stunkard, 2008).

As a newly identified disorder, less information is available concerning BED. However, if BED is considered an eating disorder, it is more common than either anorexia nervosa or bulimia nervosa. The prevalence of BED in the United States, Canada, and the United Kingdom has been reported to be between 0.7 and 4 percent of the population (Cassell & Gleaves, 2000). Other research has placed the prevalence of this disorder at 3 percent, though it is estimated to be higher in obese persons. The distribution of BED is broader and more diverse than that of bulimia nervosa or anorexia nervosa; it is evenly distributed throughout adulthood and is not uncommon in men or
persons of color (Wilson, et al., 2007). Unlike individuals with AN or BN, persons with BED who seek treatment are typically older, though emerging research suggests that the onset of this disorder often dates back to adolescence. Other research has suggested that onset can occur as early as age seven or as late as the 30s or 40s (Cassell & Gleaves, 2000).

Binge-eating disorder is associated with obesity, and obese individuals with BED are at an increased risk for morbidity and mortality. Individuals with binge-eating disorder often suffer from multiple co-occurring problems including high levels of eating disorder psychopathology, psychiatric comorbidity, psychological disorders (i.e., depression, anxiety, impulsivity), and medical disorders (Johnson, Spitzer, & Williams, 2001). Grilo, Masheb, and Wilson (2005) noted that 73% of individuals in their study had at least one additional lifetime psychiatric disorder (i.e., 46% had major depressive disorder, 32% had an anxiety disorder, 24% had an alcohol use disorder and 32% had at least one personality disorder).

Treatment for BED has been most frequently studied using manual-based cognitive behavioral therapy. While there is some empirical support for other specialized psychological treatments including interpersonal therapy, dialectical behavior therapy, and behavioral weight loss treatment, cognitive behavioral therapy has been found to be the most effective treatment for this disorder to date. Cognitive behavioral therapy is generally associated with high treatment completion rates (roughly 80% across different methods), remission from binge eating in 50% of patients, and broad improvements in associated depression and psychosocial functioning (Wilson, et al., 2007). As mentioned
above, other types of treatment modalities, such as interpersonal psychotherapy and dialectical behavior therapy, have been used to treat individuals with BED. In two studies, interpersonal therapy has demonstrated robust short-term and longer term outcomes that are essentially identical to those of cognitive behavioral therapy (Wilson, et al., 2007). Dialectical behavior therapy has also demonstrated efficacy and durability of effects, with 56% remission rates observed at six months after treatment completion (Wilson, et al., 2007). While traditional obesity treatments have also been used to treat BED, such as moderate to low calorie diets, these have not been found to be as effective as the treatments mentioned above. In addition, pharmacotherapy has also been used to treat BED, though to date trials have been relatively short and have involved the use of antiobesity medications, such as sibutramine and d-fenfluramine, which has since been removed from the market, and the antiepileptic medication topiramate. Of these trials, both sibutramine and topiramate resulted in significantly greater reductions in binge eating and weight loss than did a placebo (Wilson, et al., 2007). More research is needed in order to determine the effectiveness of these medications for the treatment of BED.

**Psychological Problems Associated with Eating Disorders**

Many different psychological factors have been studied in order to help determine a model of etiology for this disease. Factors such as increased stress, childhood adversity, meaning making, coping and social support, personality types, decreased self-esteem, and emotions (such as depression and anxiety) have all been linked to the formation of eating disorders.
A number of studies have shown that patients with eating disorders report trauma in their childhoods more frequently than do women without eating disorders. This includes events such as childhood sexual abuse, parental antipathy, indifference, and over-control (Serpell & Troop, 2003). In general, studies suggest that individuals with bulimic disorders have the highest levels of childhood adversity. Studies also suggest that onset of an eating disorder often occurs within one year of a traumatic event. In a study by Schmidt, Tiller, Andrews, Blanchard, and Treasure (1997) it was found that when severe events and marked difficulties were examined in individuals who had developed either anorexia nervosa or bulimia nervosa, a majority of them reported at least one severe event or marked difficulty in the year before onset of the disease compared with non-eating disordered individuals in the comparison group. Stress around relationships or a difficulty with relationships appears to be the event that most often provokes the onset of an eating disorder (Schmidt, et al., 1997). Aside from relational stress, the second most common event that foreshadowed the development of an eating disorder was a pudicity event (crises of a sexual nature that are perceived as shameful, embarrassing, or disgusting), which is more common in patients developing anorexia nervosa than in those developing bulimia nervosa or other non-psychiatric controls (Schmidt, et al., 1997).

The coping response is important in determining the impact of life events and difficulties. Research suggests that women with AN and BN show high levels of avoidance-coping relative to non-eating-disordered women and that women with BN (but not AN) seek less support and confide in others less (Serpell & Troop, 2003). Cognitive
avoidance seems to be associated with the onset of anorexia nervosa, while cognitive rumination is associated with the onset of bulimia nervosa relative to non-eating-disordered women.

Self-esteem is another widely researched topic in eating disorder literature. While the impact of decreased self-esteem will be discussed in more depth later in this review, it will be briefly touched on here. Self-esteem refers to a person's perception of his or her overall worth as a human being. Longitudinal studies have suggested a relationship between low self-esteem and the later development of eating disorder symptoms (Button, Sonuga-Barke, Davies, & Thompson, 1996). Retrospective reporting of childhood negative self-evaluation also suggests that lower self-esteem may be higher in women with anorexia nervosa or bulimia nervosa than in a non-psychiatric comparison group or even in women with other psychiatric disorders (Serpell & Troop, 2003). Although low self-esteem is not unique to eating disorders, the suggestion that weight and shape are particularly over-identified with self-esteem in individuals with eating disorders has received attention in the literature. For example, individuals with eating disorders tend to base more of their self-esteem on their perceived unsatisfactory shape and weight than either a non-clinical control group or a mixed psychiatric control group (Serpell & Troop, 2003).

Another widely researched topic in eating disorders is that of personality. Obsessional features, such as rigidity, neatness, conscientiousness, and preoccupation with rules and ethics are often common traits found in individuals with eating disorders (Serpell & Troop, 2003). The trait of perfectionism has also been widely studied, as have
the following personality disorders: Obsessive-Compulsive Personality Disorder, Avoidant Personality Disorder, and Borderline Personality Disorder.

There is a high level of perfectionism found in both anorexia nervosa and bulimia nervosa and most studies have found that different eating-disordered subtypes do not differ in levels of perfectionism (Garner, Olmstead, & Polivy, 1983). Perfectionism is characterized by high personal standards and low tolerance for making mistakes, a highly critical nature, organization skills, concern over mistakes, and an emphasis on order (Peck & Lightsey, 2008). High perfectionism pretest scores have predicted poor prognosis 5-10 years later in anorexic patients, and people with eating disorders who were perfectionistic at pretest were likely to meet the diagnostic criteria for eating disorders one year later (Santonastaso, Friederici, & Favaro, 1999, as cited in Peck & Lightsey, 2008). In addition, the cluster of traits of rigidity, perfectionism, and inflexible thinking has been characterized as defining obsessive-compulsive personality disorder (OCPD). Estimates of comorbidity of OCPD and eating disorders vary from 3% to 60%, with the largest study suggesting a concurrent diagnosis of OCPD of 10% in restricting AN and 4% in binge/purge AN (Serpell & Troop, 2003). Childhood OCPD personality traits have also showed a high predictive value for the development of eating disorders (Serpell & Troop, 2003).

Other personality disorders, such as Borderline Personality Disorder and avoidant personality disorders have also been found to be more common in individuals with eating disorders than in non-eating disordered individuals (Serpell & Troop, 2003). Patients with anorexia nervosa tend to be diagnosed with cluster C personality disorders such as
avoidant personality disorders while patients with a history of bulimia nervosa are more likely to receive diagnoses of cluster B personality disorders, such as Borderline Personality Disorder (Carroll, Touyz, & Beumont, 1996). Impulsive traits are also common in individuals with BN.

Finally, individuals with eating disorders often have comorbid emotional diagnoses, such as depressive or anxiety disorders. Indeed, emotional states, such as negative affect, disgust, shame, anger, hostility, and the inability to recognize emotional states (alexithymia) also seem to play a part in eating disorders. For example, there is a growing consensus in clinical samples that demonstrates that disgust and disgust sensitivity is higher in eating disordered women than in non-eating disordered women, especially around food and body related stimuli (Davey, Buckland, Tantow, & Dallos, 1998). Shame, or the feeling of having judged the self to have fallen short of some internalized set of standards, has also been found to be related to eating pathology (Sanftner, Barlow, Marschall, & Tangney, 1995). While there is less research available on the relationship of anger and hostility to eating disordered individuals, several studies have found that anger suppression is related to the presence of binge eating whereas state anger is related to the presence of vomiting (Serpell & Troop, 2003). Alexithymia, or the inability to recognize an emotion, differentiate between emotional and physical signals, and communicate emotions, has been reported more commonly in individuals with eating disorders than in a non-eating disordered population (Serpell & Troop, 2003).
Art Therapy

Art therapy is "a mental health profession that uses the creative process of art making to improve and enhance the physical, mental and emotional well-being of individuals of all ages" (About Art Therapy, n.d.). It is based on the belief that the creative process involved in artistic self-expression helps people to resolve conflicts and problems, develop interpersonal skills, manage behavior, reduce stress, increase self-esteem and self-awareness, and achieve insight (http://www.arttherapy.org/therapy.asp).

Art therapy has been shown to be an effective modality for helping people with eating disorders (Kaslow & Eicher, 1988; Matto, 1997; Mitchell, 1980; Naitove, 1986; Schaverien, 1995; Wolf, Wilmuth & Watkins, 1986; Zerbe, 1993). The creative arts promote new insights and awareness for clients through the process of self-expression (Mitchell, 1980). This treatment approach also provides the individual with freedom of expression and the opportunity to develop a better understanding of his or her underlying psychological issues in a non-threatening environment (Betts, 2008).

Through art therapy, an individual's symbolic behaviors around food can be illuminated and often correspond with qualities inherent in arts therapies approaches (Naitove, 1986). For example, the issues of control and perfectionism can be directly addressed by using art materials. Individuals with eating disorders can gain a sense of self-efficacy when they experience mastery of the materials, or they can confront their feelings about being imperfect when, for example, a painting does not turn out the way it was planned or expected to be (Betts, 2008). It has also been noted in the literature that art materials and food share a central commonality. Both are tactile, substantive products
with texture (Schaverien, 1995). In art therapy, this commonality can be used to help challenge clients to experiment with various art materials and to modify their way of relating with the media which can assist eating disordered individuals in confronting their maladaptive belief systems around food (Betts, 2008). Expressive arts therapies also help eating disordered individuals create an inner image of his or her body in a safe manner (Zerbe, 1993) and have been used to foster a trusting relationship between client and therapist, and, in turn, between the client and his or her body (Betts, 2008).

Art therapy is also an effective way to work with individuals who have difficulty expressing themselves verbally (Cassell & Gleaves, 2000). As stated previously, individuals with eating disorders often report that they have trouble recognizing their emotional states and communicating emotions. This is condition is called alexithymia and has been reported more often in individuals diagnosed with eating disorders than in non-eating disordered individuals (Serpell & Troop, 2003). Creative arts therapies are unique in that they combine non-verbal and verbal therapeutic work. A client can work on a non-verbal sensory and emotional level using art materials and then discuss the product and the art making process verbally afterwards. This verbal discussion assists in helping the client to operate on a cognitive/intellectual level and connect with his or her emotional experience during the art session (Betts, 2008). Through this process, the client is better able to understand his or her emotions, to name them, and to experience how the emotions that are present make him or her feel.

Art therapy has also been shown to be a valid modality to use when working with adolescents (Higenbottam, 2004). Moon (1998) and Riley (1999) have both described art
therapy as an especially suitable therapeutic modality for this age group and Moon (1998) has referred to this modality as the "natural language of adolescents" (p. 175). Adolescent art therapy groups provide a necessary forum where teenagers can safely express themselves, exert independence, and make safe decisions (Higenbottam, 2004). Riley (2001) writes that "adolescents are attracted to making symbols and graphic depictions; therefore, they are more attracted to using art as language than to verbal questioning" (p. 55). She also believes that art therapy is an effective therapeutic modality for adolescents because it offers them a form of communication that is nonthreatening and which adolescents often feel they have control over, as they can draw or create as little or as much as they want during a session (Riley, 2001). Because adolescents often view art therapy as less threatening than traditional talk therapies the chances that the youth will remain in therapy is also greater (Riley, 2001). Writing specifically about art therapy with female adolescents, Riley (1999) has said:

For the most part, young women respond very favorably to the use of art as therapy...I have observed that the young women I see are often cued from an early age not to trust their own opinions, to dislike themselves...The influence is more profound if a cultural component is added which views women as stereotypically in a demeaning role. The art modality has attractions for female clients because it honors the inner voice by offering a personal avenue of reporting which does not clash with the messages of their environment. It fosters and encourages the expression of self. (p. 159)

**Eating Disorders and Self-Esteem**

Self-esteem provides a sense of competence and resiliency to undertake and successfully respond to life's challenges. It ranks among one of the most important aspects of self-development, as self evaluations affect one's emotional experiences, future
behavior, and long-term psychological adjustments (Hartz & Thick, 2005). High self-esteem involves the sense that one is worthy of happiness and low self-esteem often increases one's susceptibility to depression and suicide (Hartz & Thick, 2005). Lack of self-esteem is associated with many issues facing adolescents, and particularly adolescent girls, including an increased vulnerability to the development of an eating disorder (Reasoner, 2002).

Throughout the literature, many different definitions of self-esteem have emerged. However, researchers generally agree that self-esteem equates with personally generated evaluations of worthiness (Coopersmith, 1967, as cited in Franklin, 1992). Franklin (1992) wrote that self-esteem is the "well-anchored, enduring sense of belief in one's unique personal qualities" and it is viewed as a "condensation of self-evaluative processes that define a sense of personal worth" (p. 79). It is believed to be comprised of both global and domain-specific evaluations, with Harter (1990) documenting eight separate and distinct domains of self-esteem in adolescence (as cited in Hartz & Thick, 2005). The identified domains are: scholastic competence, social acceptance, behavioral conduct, close friendships, athletic ability, physical appearance, romantic appeal, and job competence. Hartz and Thick (2005) report that Harter also found that global self-worth is not a combination of the separate domains, but instead that global self-esteem is often influenced by the specific domains the adolescence finds most important to his or her life. Individuals with eating disorders, for example, may be most influenced by the domain of social acceptance. De Groot (1992) writes that women with low self-esteem tend to be
more sensitive to meeting society's expectations and may go beyond dieting to develop eating disorders.

Much research has been conducted concerning the relationship between eating disorders and self-esteem. Longitudinal studies have suggested a relationship between low self-esteem and the later development of eating disorder symptoms (Button et al., 1996; Peck & Lightsey, 2008). It has been found that women with more eating disordered behaviors tend to have lower self-esteem than do women without eating disorders or with less severe eating disordered behavior (Beren & Chrisler, 1990; Mintz & Betz, 1988, as cited in Peck & Lightsey, 2008). There is also evidence that the strength of the link between self-esteem and weight and shape differentiates individuals with eating disorders from non-eating disordered women (Vitousek & Hollon, 1990). Furthermore, self-esteem has been found to be lower in current and historical bulimics, as well as in repeat dieters (Dykens & Gerrard, 1986, as cited in Peck & Lightsey, 2008) and both low self-esteem and high anxiety have been associated with dysfunctional eating attitudes (Fisher, Pastore, Schneider, Pegler, & Napolitano, 1994, as cited in Peck & Lightsey, 2008).

Self-esteem has also been found to be linked to adolescent obesity. In a study by Martin, Housley, and McCoy (1988) it was found that self-esteem of adolescent girls is related to their weight. Girls who were more obese had more decreased self-esteem. These results tend to confirm the observation that adolescent girls internalize social attitudes about body size, which can result in continued low self-esteem in overweight girls. Perceived weight status has also been shown to predict bulimic symptoms in
individuals, as women who perceive themselves as more obese are more likely to develop bulimia or bulimic tendencies (Vohs, Joiner, Bardone, Abramson, & Heatherton, 1999).

Other studies have found a link between perfectionism and self-esteem in persons diagnosed with eating disorders. Peck and Lightsey's (2008) research has shown that asymptomatic individuals have the highest self-esteem and individuals who have been diagnosed with eating disorders have the lowest self-esteem. Their research also suggests that individuals with eating disorders score higher on a measure of perfectionism than do non-eating disordered individuals (Peck & Lightsey, 2008). Other studies have looked at the interaction of perfectionism and self-esteem to predict bulimic symptoms in women. In a study by Vohs, Joiner, Bardone, Abramson, and Heatherton (1999), it was found that women who had low self-esteem and high perfectionistic tendencies were more likely to develop bulimic symptoms. Their findings highlight the role of self-esteem in activating perfectionism in women who consider themselves to be overweight. Other studies have found that while self-esteem is not the primary predictor for disordered eating, it is the secondary predictor of disordered eating, making it an important and necessary factor to examine when studying psychological factors involved in eating disorders (Shea & Pritchard, 2006). Shea and Pritchard (2006) found that escape coping was the primary predictor of bulimia. This type of coping is characterized by wishful thinking and behavioral efforts to escape or avoid problems.

A study by Vanderlinden, Buis, Pieters, and Probst (2007) showed that when asked about which elements they deemed to be most helpful and effective in the recovery process, individuals who had been diagnosed with eating disorders and who were being
treated for eating disorders reported that improving self-esteem was the most necessary 'ingredient' to their recovery. Therapists in the study also agreed that improving the patient's self-esteem was the most necessary therapeutic 'ingredient' and this finding seems to reflect a good understanding of the patient's needs by their therapists.

**Art Therapy and Self-Esteem**

In their survey of published empirical research evaluating the effectiveness of art therapy, Reynolds, Nabors, and Quinlan (2000) reviewed five art therapy studies that documented a significant increase in self-esteem (Chin, Chin, Palombo, Palombo, Bannasch, & Cross, 1980; Green, Wehling, & Talsky, 1987; Omizo & Omizo, 1989; Tibbets & Stone, 1990; White & Allen, 1971). In addition to this empirical research, many clinical articles and case studies describe clients' improvements in self-esteem as the result of art therapy interventions. For example, Higenbottam (2004) designed and facilitated a girls' art therapy group. The group's participants were 13-14 year old adolescent girls. She found that at the conclusion of the group the group members had improved body image and a statistically significant increase in self-esteem as measured using a survey constructed from Daley and Lecroy's Go Grrrls Questionnaire (2001). The survey focused on feelings around body image and self-esteem.

Franklin (1992) examined the mechanisms within art therapy that promote the development of self-esteem. He credits Landgarten (1981) with first identifying the creative process as inherently empowering in its acts of self-assertion (as cited in Franklin, 1992). Moon (1998) elaborated on developing personal power through creating. Franklin also recognized Rhyne (1973) for documenting the role of artmaking
in discovery of one's uniqueness and catalyzing greater awareness and appreciation of the self (as cited in Franklin, 1992). Franklin (1992) believes that through the process of making art and creating an art product, clients are able to confront their self-esteem issues as repressed or hidden shame that is becoming visible. These issues can then be confronted in a displaced way and improved self-concepts can be viewed in a nonthreatening manner (Franklin, 1992).

The art process can also be thought of as the process of conception, or the ability to incubate and birth an idea through one's art making. In this way, an individual with poor self-esteem can begin to conceive of him or herself in a different, more positive light and begin to create representations of his or her improved self-concept. These representations can either be discussed verbally at the time of their creation or the individual can continue to create multiple representations of his or her new self-concept and improved self-esteem without talking about them. In the second situation, each new creation acts as a small exposure to the individual's emerging identity, allowing the individual to "test out" his or her new identity before talking about it (Franklin, 1992). Franklin wrote that, "art can become a safe place where the old self can be confronted and the new self rehearsed" (p. 80).

Furthermore, the art making process can help to empower individuals with low self-esteem, who typically also lack self-empowerment and feel as if they have no control over their lives or their environments. One of the major strategies often used when working with individuals who have lower self-esteem is helping them to become assertive and gain a sense of power over their lives (Mecca, Smelser, & Vasconcellos,
Allowing individuals to create their own images contributes to the theme of empowerment. After the art making has been completed, a new product exists that is unique and special. Creating something that is new and original "validates and empowers the uniqueness of the person" (Franklin, 1992, p. 80). Making an object out of an idea is powerful, especially when it is done by an individual who feels fragile and unworthy (Regelski, 1973; as cited in Franklin, 1992).

Art making allows for the possibility to explore with individuals how they value themselves by observing what is invested of them in their art work and how they respond to it. Often, individuals have a definitive mental picture of what they want their art work to "end up" looking like. When and if the art product does not look the way the individual envisioned it to look, anxiety, self-criticism, disappointment, shame, or even anger can result. Through art work, failures can be experienced and eventually tolerated, allowing the individual to readjust his or her internal perceptions about him or herself and his or her world (Franklin, 1992). This can be particularly powerful with individuals diagnosed with eating disorders. Images of beauty and thinness pervade popular culture and the media in our society. Adolescents with eating disorders often report that magazine pictures influence their idea of the perfect body shape and that they have wanted to lose weight because of magazine images (Field, Cheung, Wolf, Herzog, Gortmaker, & Colditz, 1999). When an individual with an eating disorder feels pressed to construct personal imagery that he or she feels "should be" as polished as printed or electronic media, the results often produce inevitable confrontations that expose personal inadequacies and unrealistic self-expectations (Franklin, 1992).
Through art therapy, difficult emotions that often equate with low self-esteem, and indeed, with eating disorders, can be examined. Mecca, Smelser, and Vasconcellos (1989) write that perceiving oneself in negative terms creates a context to foster the feeling of shame. Unacknowledged shame can evolve into anger, rage, or self-hatred. As mentioned earlier, shame-proneness has been found to be related to eating pathology (Serpell & Troop, 2003). Shame has also been reported to be higher in women who binge eat (Sanftner & Crowther, 1998). Also, anger and hostility have been found to be higher in patients with eating disorders than in non-eating disordered comparison women (Tiller, Schmidt, Ali, & Treasure, 1995). Strategies to acknowledge anger and shame, and to manage both of these emotions, are key elements in the development of healthy self-esteem (Franklin, 1992). Allowing for hidden shame to be seen in the context of the art work fosters safe encounters with painful feelings. Old patterns of thinking and feeling about oneself, one's environment, and relationships can be reexamined and redefined and new attitudes can be developed which eventually lead to a new sense of personal self-worth (Franklin, 1992).

In addition, group art therapy offers some benefits to self-esteem that individual therapy would not offer in the same way. With group art, group members often act as validators, giving feedback to the individual and helping the individual to acknowledge the worth in what she or he has created. This can help the individual to realize that self mastery, empowerment, and assertiveness are possible and are occurring. Group members, as well as the art therapist and other therapists present, also offer the individual social support (Franklin, 1992).
Art Books

According to Katherine Reed, art therapist at The Children’s Hospital in Aurora, Colorado, the creation of art books is a way for individuals to “visually document their journey throughout their hospitalization and recovery process” (personal communication, September 19, 2008). Reed believes that through art-making, especially within the contained boundaries of a book, individuals are provided with a bridge that can help them move toward their authentic selves. Through books, individuals can track their recovery process chronologically, can review their emotional progress, and can choose what they want to create, without their creations being judged by others. She also believes that because the pages in the books are a definite shape and the books can be closed, they act as a container for the individual’s emotions, thoughts, and sense of self. Reed states that “the book becomes an investment in each individual’s recovery and a reflection of their process” (personal communication, September 19, 2008).
CHAPTER THREE

Methods

Overview of the study

The proposed study included the collection of both quantitative and qualitative information. This study examined the use of art therapy to increase self-esteem in adolescents diagnosed with eating disorders. In particular, the creation of therapeutic art books to increase self-esteem was examined. The study took place with participants from the Eating Disorders Unit (EDU) at The Children's Hospital in Aurora, Colorado. The participants were members of an art therapy book group. Study members were given two objective measures of self-esteem, the Rosenberg Self-Esteem Scale (RSE) (see Appendix A) and the Hartz Art Therapy Self-Esteem Questionnaire (HARTZ AT-SEQ) (see Appendix B), to fill out before they participated in their first book group session and after they participated in their fourth book group session. Participants were also given an affective states questionnaire using a visual analogue scale format (see Appendix C) and a Subjective Units of Distress (SUDS) scale (see Appendix D) at the beginning and end of each book group session to help determine the effectiveness of this art intervention. In addition, all participants were interviewed about their experience in book group, focusing on its relationship to self-esteem, the effectiveness of this art intervention in regards to the participants' recovery, and the elements of this intervention that have either helped or
not helped them during their recovery. See Appendix G for an example of a therapeutic art book.

**Purpose of the study**

The purpose of this study was three-fold. First, quantitative methods were used in order to explore the impact that the art therapy technique of creating art books had on the participants' self-esteem using the Rosenberg Self-Esteem Scale (RSE) and the Hartz Art Therapy Self-Esteem Questionnaire (HARTZ AT-SEQ). Second, affective visual analogue scales and SUDS ratings were used to determine the effectiveness of this group technique with this population. Third, participant interviews explored themes that emerged regarding the usefulness of this technique for adolescents diagnosed with eating disorders and also explored more in-depth the impact this technique had on their self-esteem.

**Theoretical Framework**

The theoretical framework for the proposed study involved a constructivist perspective for the qualitative approach and a postpositivist perspective for the quantitative aspect. Constructivism examines how one constructs meaning from life experiences (Crotty, 1998; Vygotsky, 1978 as cited in DeCuir-Gunby, 2008). The theory of constructivism holds the belief that people construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences. When a new experience is encountered, individuals have to reconcile it with their previous ideas and experience, which may then cause them to possibly change what they believe or discard the new information as irrelevant. In constructivism, individuals are
seen as active creators of their own knowledge (What is constructivism?, n.d.). Using such a perspective allowed the researcher to examine how creating an art book contributed to the development of self-esteem among adolescent individuals diagnosed with eating disorders. It also allowed for a greater understanding of other factors that individuals found to be helpful to their recovery processes that occurred during the art making process. Their understandings were based on their own life experiences and were individually valuable. Next, a postpositive approach was used in order to determine if participants' self-esteem had increased throughout the time they were receiving the therapeutic art book groups. Also, this approach was used to analyze if participants experienced a decrease in negative affective states such as anxiety, depression, and anger, as well as additional affective states, immediately after taking part in the art book treatment activity. Although the theory of postpositivism suggests that empirical indicators can be used in order to approximate the truth, there is the belief that no quantitative measurement or statistical method can obtain the absolute truth (DeCuir-Gunby, 2008).

In adolescent individuals with eating disorders, decreased self-esteem has been found to be a secondary predictor for drive for thinness and development of an eating disorder (Shea & Pritchard, 2006). There is agreement in the literature that decreased self-esteem plays a very important role in both the development and treatment of eating disorders. Indeed, patients diagnosed and treated for eating disorders list "improving self-esteem" as the most important aspect of their treatment (Vanderlinden, Buis, Pieters, & Probst, 2007). As art therapy has often been used as a treatment to increase self-

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esteem, it seemed relevant to investigate the effect of art book making, a type of art therapy intervention, on participants' self-esteem. This was done using the quantitative measures of the Rosenberg Self-Esteem Scale (RSE), a global measure of self-esteem, and the Hartz Art Therapy Self-Esteem Questionnaire (HARTZ AT-SEQ). These measures were administered to participants by this researcher during their first week in this group and during their fourth week in this group. Visual analogue scales assessing affective states in this sample and a SUDS measure were used to determine the overall effectiveness of this intervention before and after each group. Both the visual analogue scale and the SUDS measure were administered to study participants by group staff members and/or this researcher.

The art therapy intervention used in this study is a relatively new therapeutic treatment overall. Therapeutic art book making does not appear to have been researched and, as such, it was important to learn not only about this treatment's impact on participants' self-esteem and overall effectiveness in regards to decreasing participants' distress, increasing their ability to express emotions, etc., but also what other aspects of this treatment influenced participants' self-concept, recovery process, ability to communicate with others, and ability to express themselves. This was explored through qualitative interviews in which themes regarding this intervention emerged, perhaps providing direction to future studies involving this art intervention.

**Hypotheses**

The hypotheses for the quantitative questions of the study are as follows:

1. Participants' self-esteem increases after participating in the therapeutic art book
group. This will be evidenced by an increase in self-esteem scores on the Rosenberg Self-Esteem Scale (RSE) and the Hartz Art Therapy Self-Esteem Questionnaire (HARTZ AT-SEQ) from baseline to the end of the study.

2. Creating therapeutic art books will improve participants' affective states. This will be measured using visual analogue scales of affective states most commonly seen in individuals with eating disorders and a SUDS measurement administered both at the beginning and the end of each group session. Participants' overall scores on these measures will increase from the beginning of group to the end of group each week over four weeks.

Research Questions

Qualitative Questions:

1. In what ways, if at all, does the process of making an art book impact the self-esteem of an adolescent individual diagnosed with an eating disorder?

2. What occurs emotionally and cognitively for an adolescent individual diagnosed with an eating disorder while making an art book?

3. In what ways, if at all, does the creation of a therapeutic book impact the adolescent's recovery process?

Data Collection

According to Morse (1991, 2003 as cited in DeCuir-Gunby, 2008), two basic methods exist to collect mixed methods data. These methods are simultaneous data collection and sequential data collection. In simultaneous data collection, both the quantitative and qualitative aspects of the study are collected at the same time. In
contrast, in sequential data collection, quantitative and qualitative data are collected in stages (DeCuir-Gunby, 2003).

In the proposed study, data were collected using the simultaneous data collection approach. Specifically, a QUAN + QUAL (or quantitative + qualitative) approach was used, meaning that equal emphasis was given to both methods in this study. As this study represents an initial investigation on this topic, information from the qualitative interviews will be used to determine what additional aspects, or "therapeutic ingredients," can be quantitatively studied at a later date. Information received from the interviews will provide the foundations for the creation of later studies. Interviews focused on participants' experiences in the group. The quantitative aspect of the study focused on the effectiveness of this approach to improve participants' affective states and self-esteem, a construct now thought to be positively related to this art therapy intervention.

Participants

The total sample was comprised of eight eating disorder patients (adolescent individuals) in the inpatient unit and the residential day treatment unit who had consented to take part in the study, as these patients took part in every art book group. Both male and female participants were interviewed, as well as participants of varying age ranges, with the youngest participant being 12 years old and the oldest participant being 20 years old. Due to the small sample size, all study participants were interviewed for the qualitative aspect of the study. This was done in order to gain as full an understanding of their experiences in the therapeutic art book group as possible. Although a small sample, interviewing both
male and female participants as well as participants of varying ages allowed aggregate
answers to qualitative questions to be closer to the whole population’s (Patton, 2001).

Quantitative Measures

The Rosenberg Self-Esteem Scale (RSE) is a 10-item self-report measure of
global self-esteem. It consists of 10 statements related to overall feelings of self-worth or
self-acceptance. The items are answered on a four-point scale ranging from strongly
agree to strongly disagree. The Rosenberg Self-Esteem Scale was originally developed to
assess self-esteem among adolescents. This scale has been found to be both valid and
reliable in a number of studies. Rosenberg (1965) found a significant association (p < .05) between the RSE and self-reports and nurses’ and peers’ ratings of depression,
psychophysiological indicators of anxiety, peer group reputation, and other relevant
constructs when norming the study on high school juniors and seniors (n = 5,024). In a
study by McCarthy and Hoge (1982), the RSE was found to be valid and reliable (α =
0.74) when used with students from seventh to twelfth grades (n = 103).

The Hartz Art Therapy Self-Esteem Questionnaire (HARTZ AT-SEQ) is a 20 item
self-report measure which gathers information on the development of mastery, social
connection, and self-approval through the art therapy process. It employs a five-point
Likert scale, ranging from "strongly disagree" to "strongly agree," to gather participants'
perceptions about the effects of their art therapy experience. These scores are averaged to
quantify the perceived general impact on each participant. As the scale appears to be a
relatively new instrument, no reliability or validity data were found. The author of the
scale was contacted and reported that she had only found face validity for the measure.
She reported that she did not know of any published or unpublished validity or reliability scores for this measure (L. Hartz, personal communication, June 27, 2011).

The Subjective Units of Disturbance Scale (SUDS) was developed by Wolpe (1958). The SUDS is a widely used measure of current reactivity, with reduced reactivity indicating recovery. The SUDS is a 0-10 scale, with 10 being equal to no distress and 0 being the most possible distress the individual has experienced. The measure is administered verbally by asking participants to rate their current distress on a scale of 0 to 10. While this measure is traditionally scored in reverse, with 10 being equal to the most possible distress and 0 being equal to no distress, for this study the measure was changed as the group leader was already using the SUDS prior to the study beginning in the manner described above. This widely used measure has documented validity, reliability, and correlations with several physiological indices of distress (SUDS and VoC Scale, n.d.).

A Visual Analogue Scale (VAS) is a measurement that tries to measure a characteristic or attitude that is believed to range across a continuum of values and cannot easily be directly measured (Wewers & Lowe, 1990). A VAS is a horizontal line, 100 mm in length, anchored by word descriptors (i.e. no depression, severe depression) at each end. For this study, the Visual Analogue Scale (VAS) assessed change in four common mood states found in individuals with eating disorders. Mood states measured by these scales were depression, anxiety, anger, and shame. The participants were asked to mark the line on the point that they felt represented their perception of their mood state.
at that time. The VAS score was determined by measuring in millimeters from the left hand end of the line to the point the participant marked.

**Qualitative Questions**

Qualitative questions were developed with the help of Katherine Reed, art therapist in the therapeutic art bookmaking group. Qualitative questions were designed to help better understand participants' experiences while making art in their art books. Please see Appendix E for a complete listing of interview questions.

**Data Analysis**

For this study, parallel mixed analyses were used. Parallel mixed analysis involved analyzing the quantitative and qualitative data separately. The results of the analyses were compared only after data analysis for each approach was completed (DeCuir-Gunby, 2003). The quantitative data in this study were analyzed using paired-samples *t*-tests. The two self-esteem measurements were administered before study participants attended their first book group and after they had completed their fourth book group. The affective scale measurements (visual analogue scales) and the SUDS measurement were administered to group members at the beginning and end of each therapeutic book group. Data from the two self-esteem measures were analyzed and compared from baseline to the end of the study, and data from the SUDS measurement and the visual analogue scales were examined for each week of the study.

The data from the interviews were analyzed using thematic content analysis. Thematic content analysis involves examining the interviews and finding common as well as uncommon themes through the process of coding. Strauss and Corbin (1990)
described the process of coding as the opening up of text to expose the thoughts, ideas, and meaning contained in it. The analysis of the interviews consisted of three processes of coding: identifying, organizing, and interrelating themes. First, the data were broken into small pieces of information called concepts. Next, similar concepts were grouped into categories and further developed according to their characteristics. Then significant themes that emerged across most or all interviews were identified. Next, the various themes were interrelated by contextualizing them in a broader analytical framework by making connections to the research literature on self-esteem, eating disorders, and art therapy. Finally, the coding process focused on the areas of self-esteem, eating disorders, and art therapy (specifically, the process of book making).

*Validity and Trustworthiness of Qualitative Data*

In the qualitative aspect of the proposed study, there are several ways to address trustworthiness of the data, including reflexivity, triangulation, and member checks. First, the process of reflexivity involves the examination of one's beliefs, subjectivities, and biases concerning the various aspects of the study (DeCuir-Gunby, 2003). This will be accomplished by acknowledging beliefs, subjectivities, and biases toward the research area and participants before beginning to study the qualitative data. DeCuir-Gunby (2003) wrote that "being reflexive allows the researcher to be less subjective when analyzing the data" (p.132).

Next, the data was triangulated. Triangulation refers to the use of more than one approach in the investigation of a research question in order to enhance confidence in the ensuing findings (DeCuir-Gunby, 2003). This strategy helps to reduce risk of bias and
allows for a better assessment of the phenomena being studied. In the proposed qualitative section of this study, triangulation was accomplished by using more than one researcher during the coding and interpretation phase of the data. This type of triangulation is referred to as investigator triangulation and involves the use of more than one researcher to interpret the data.

**Procedures**

For the proposed study, data collection began in May of 2010 and continued until July 2010. Data was collected from participants in the Eating Disorders Unit (EDU) at The Children's Hospital in Aurora, Colorado. In the EDU, adolescents who were either in the inpatient level of care or the full-week day treatment level of care received therapeutic art book group. Book group took place every Friday afternoon from 1:30pm to 5pm. Participants in the book group were asked to participate in this study after being admitted to the EDU program, before their first book group. According to information from Dr. Jennifer Hagman, director of the EDU, admissions to the unit took place from Monday to Thursday. The unit admitted approximately six to seven individuals per month with 80-90% of them being female. The average age for adolescents on the unit was 15.6 years old, though the unit treats individuals from nine years old to 21 years old. For the purposes of this study, only individuals from 12 to 21 years old were eligible to participate. Roughly 60% of the population of the unit has been diagnosed with anorexia.

After admission, this researcher met with the individual and his or her parents and gave them a brief introduction to the group and asked both to consent to the adolescent's participation in the study. If consent was given, the adolescent was administered the
Rosenberg Self-Esteem Scale (RSE) and the adolescent was asked to complete the Hartz Art Therapy Self-Esteem Questionnaire (HARTZ AT-SEQ). As patients generally remained in either inpatient or full-week day treatment for four to six weeks, and henceforth attended four to six book groups, after the participant's fourth book group, he or she was again administered the RSE and the HARTZ AT-SEQ. All participants were interviewed about their experience after their fourth book group. Interview questions focused on art therapy as it related to the participant's self-esteem, the participant's experience in group, and other ways in which the participant believed the book making project helped with recovery. The interviews ranged in duration from 20 to 35 minutes in length. Interviews were conducted in a quiet space with only the researcher and participant present. Before consenting to the study, participants and their parents were informed that interviews would be taped so as to enable the researcher to be able to transcribe the interviews and thus gain a better understanding of the participant's experience in the group. Participants were given the opportunity at the conclusion of the interview to share anything else that had not been talked about in relation to the art group with the researcher.

The affective measures and the SUDS measurement were administered to participants at the beginning and end of every therapeutic art book session in order to examine change after the therapy intervention, in this case, book group. Both assessments were brief and took no longer than two minutes to complete. This was helpful, as book group tended to be a longer group and asking the participants to complete a longer assessment would have been difficult.
Throughout this chapter, an overview of the study was presented, including a rationale for the study and specifics regarding how the study data was gathered. Measures used in this study, including the RSE, HARTZ AT-SEQ, SUDS, and VAS, were discussed. In addition, the chapter explained how quantitative and qualitative data were analyzed. The next chapter will present the findings of the study.
CHAPTER FOUR

Results

As a mixed methods study, both quantitative and qualitative data were collected to provide answers to research questions and to determine if the study's hypotheses were valid. A total of eight participants took part in the study, including seven females and one male. Participants ranged in age from 12 to 20 years old, with the average age being 16 years old. Seven of the eight participants in the study had diagnoses of Anorexia Nervosa. The remaining study participant had a diagnosis of Eating Disorder NOS. All eight participants identified as Caucasian. Half of the participants reported having previous experience with art, either in school classes, because of exposure from relatives, or from previous art therapy experience. The other half of participants reported having no prior experience with art before entering the art therapy book group.

Quantitative results

Throughout this study, four quantitative measures were used, with two being utilized to better understand the relationship of this particular intervention to participants' self-esteem and two being used to understand the participants' perceptions of the effectiveness of the intervention. The measures of self-esteem, the Rosenberg Self-Esteem Scale (RSE) and the Hartz Art Therapy Self-Esteem Questionnaire (HARTZ AT-SEQ), were completed by participants before their first group session and after their
fourth group session. However, if a participant was discharged before his or her fourth session, the questionnaires were completed after their last session. This occurred for two participants, who both completed their questionnaires after their third group session. The Subjective Units of Distress Scale (SUDS) was given to participants before and after each group in order to rate their perceived distress, or negative feelings. Four Visual Analogue Scales (VAS) of emotions common in individuals with eating disorders were also given to participants before and after each group. The emotions rated were depression, anxiety, shame, and anger. Please find all measures in Appendices A through D.

The Rosenberg Self-Esteem Scale (RSE) is a 10 item measure of global self-esteem to which participants responded using a 4-point Likert scale with zero being equal to strongly disagree and three being equal to strongly agree. Total scores could range from zero to thirty. The scale has high reliability, with test-retest correlations typically in the range of 0.82 to 0.88 and Cronbach's alpha in the range of 0.77 to 0.88. In this study, Cronbach's alpha was 0.94 at both administrations. Participants were asked to rate statements related to their overall self-esteem. Like the HARTZ AT-SEQ, it was administered to participants before their first group and after their fourth group. In two of the participants' cases, the second administration was made after their third group as they were discharged early. Scores on reverse-keyed items were changed before deriving a total score. The scores remained very stable; M = 13.6; SD = 7.9 at baseline and M = 13.8; SD = 7.9 at the end of the study. Thus, results of a paired-samples t-test indicated there was no change in RSE scores for the group as a whole.
The Hartz Art Therapy Self-Esteem Questionnaire (HARTZ AT-SEQ) is a 20 item questionnaire that participants responded to using a five-point Likert scale with one being equal to strongly disagree and five being equal to strongly agree. Total scores could range from 20 to 100. As this is a newer measure, no reliability or validity data were found. The author of the scale was contacted and reported that she had only found face validity for the measure. She reported that she did not know of any published or unpublished validity or reliability scores for this measure (L. Hartz, personal communication, June 27, 2011). For this sample the estimate of reliability (Cronbach's alpha) was 0.93.

For this measure, participants were asked to rate statements about their self-esteem in regards to their experiences with art therapy. If participants had no prior experience with or exposure to art therapy, they were asked to fill out the questionnaire before their first group thinking about any prior experiences with art making. Although there was a slight upward trend in mean scores (M = 70.4; SD = 13.5 at baseline to M = 72.6; SD = 22.4 after the last session), results of a paired-samples t-test indicated there was no significant change in HARTZ AT-SEQ scores for the group as a whole.

When analyzing the data, it was found that one participant's responses were unusually negative and served to skew the data in a way that portrayed that average scores across all participants decreased on multiple items. When this participant's scores were removed from the data, a stronger upward trend was seen (M = 70.3; SD = 14.6 at baseline to M = 78.6; SD = 16.0 after the last session). On the HARTZ AT-SEQ, items 16 and 17 showed the most improvement. Item 16 is, “I have found that I am capable of
being more artistic and creative than I previously thought myself to be” while item 17 is, “I see that I have things in common with others when we make art projects together.”

The Subjective Units of Distress Scale (SUDS) is a brief measure that asks participants to rate their feelings at the moment they are filling out the measure with 10 being equal to no distress and 0 being the most possible distress the individual has experienced. While this measure is traditionally scored in reverse, with 10 being equal to the most possible distress and 0 being equal to no distress, for this study the measure has been changed as the group leader was already using the SUDS prior to the study beginning in the manner described above. Participants were asked to complete this measure before and after each group session for a total of four sessions. However, as with all the measures, two participants only completed three group sessions, and therefore, there were a total of three completed SUDS measures for these participants.

**Table 1. SUDS Scores Change Across Time**

<table>
<thead>
<tr>
<th></th>
<th>Pre-Mean</th>
<th>Std. Deviation</th>
<th>Post-Mean</th>
<th>Std. Deviation</th>
<th>Std. Deviation Change Scores</th>
<th>Mean Change Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>4.4</td>
<td>1.7</td>
<td>5.8</td>
<td>2.8</td>
<td>1.1</td>
<td>1.4</td>
</tr>
<tr>
<td>Session 2</td>
<td>5.1</td>
<td>2.1</td>
<td>5.9</td>
<td>2.2</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Session 3</td>
<td>5.6</td>
<td>2.2</td>
<td>5.8</td>
<td>1.8</td>
<td>0.4</td>
<td>0.2</td>
</tr>
<tr>
<td>Session 4</td>
<td>5.7</td>
<td>1.6</td>
<td>5.8</td>
<td>2.3</td>
<td>0.7</td>
<td>0.1</td>
</tr>
</tbody>
</table>

The average SUDS scores were calculated for all participants. Table 1 illustrates that while all participants showed improvement (i.e., their SUDS increased on average at the completion of each group), there were no significant changes over time. The most significant improvement occurred after the first group, followed by the second group,
with improvement in distress leveling off, though still showing slight improvement, at groups three and four.

The Visual Analogue Scale (VAS) assessed change in four common mood states found in individuals with eating disorders. Mood states measured by these scales were depression, anxiety, anger, and shame. Mood states were measured prior to and at the end of each group (groups 1-4, with two participants ending after the third group). As with the SUDS, the focus of this instrument was to assess change in mood states during the group treatments and not necessarily change across the weeks. A decrease in a particular mood state meant that a participant reported feeling less of the mood (i.e., feeling less depressed) at the conclusion of group than at the beginning. On this measure, scores ranged from zero to 4.5. Results indicated that scores for all mood states decreased significantly during the first session (see Table 2), suggesting again that the most positive effect of the therapeutic art book intervention was seen in the first group.
Table 2. VAS Scores Change Across Time

<table>
<thead>
<tr>
<th>Session</th>
<th>Depression</th>
<th>Pre-Mean</th>
<th>Std. Deviation</th>
<th>Post-Mean</th>
<th>Std. Deviation</th>
<th>Change Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Depression*</td>
<td>1.7</td>
<td>1.2</td>
<td>1.2</td>
<td>1.1</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Anxiety**</td>
<td>1.9</td>
<td>1.4</td>
<td>1.2</td>
<td>1.1</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>Anger**</td>
<td>1.8</td>
<td>1</td>
<td>1.2</td>
<td>1.3</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>Shame**</td>
<td>2.2</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>0.7</td>
</tr>
<tr>
<td>2</td>
<td>Depression</td>
<td>1.8</td>
<td>1</td>
<td>1.5</td>
<td>1.5</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Anxiety</td>
<td>2</td>
<td>1.2</td>
<td>1.4</td>
<td>1.5</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>Anger</td>
<td>1.8</td>
<td>1.3</td>
<td>1.4</td>
<td>1.4</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>Shame</td>
<td>2.3</td>
<td>1.5</td>
<td>1.8</td>
<td>1.7</td>
<td>0.5</td>
</tr>
<tr>
<td>3</td>
<td>Depression</td>
<td>1.8</td>
<td>1.3</td>
<td>1.5</td>
<td>1.2</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Anxiety</td>
<td>1.7</td>
<td>1.3</td>
<td>1.8</td>
<td>1.3</td>
<td>-0.1</td>
</tr>
<tr>
<td></td>
<td>Anger</td>
<td>1.8</td>
<td>1.1</td>
<td>1.6</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>Shame</td>
<td>2.2</td>
<td>1.5</td>
<td>1.8</td>
<td>1.3</td>
<td>0.4</td>
</tr>
<tr>
<td>4</td>
<td>Depression</td>
<td>1.4</td>
<td>1.2</td>
<td>1.2</td>
<td>1.6</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>Anxiety</td>
<td>1.8</td>
<td>1.1</td>
<td>1.4</td>
<td>1.3</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>Anger</td>
<td>1.2</td>
<td>1</td>
<td>1</td>
<td>1.2</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>Shame</td>
<td>2</td>
<td>1.6</td>
<td>1.4</td>
<td>1.6</td>
<td>0.6</td>
</tr>
</tbody>
</table>

*(p≤0.10); **(p≤0.05)

Qualitative results

At the conclusion of participants' fourth group art session, each individual was given the opportunity to take part in an interview in which they were asked about their experiences during the art group, with the goal being to better understand the therapeutic functions of this intervention. Interviews were 20 to 30 minutes in length with each participant being asked a standard set of interview questions. These interviews were recorded and then transcribed. Please refer to Appendix E for the interview questions. Data were analyzed qualitatively using thematic content analysis, which involved the
process of coding. Coding can be described as the opening up of text to reveal the thoughts, meanings, and ideas within it. Each participant's transcript was broken into small pieces of information, called a concept. Concepts were then grouped into larger categories within the interview. After this process occurred for all transcripts, the various thematic categories from each interview were compiled and similar categories from all interviews were again grouped together. This process continued until the most common themes began to emerge. In total, twelve main themes were identified. Please refer to Table 3 in Appendix F for a complete listing of themes.

The analysis of the data isolated three significant themes endorsed by 66% of the participants. These themes included 1) the use of art as a distraction technique, 2) the art book being significantly different from a written journal, and 3) the development of an increased understanding of others. Participants described the use of the art therapy book as allowing them to become immersed in something other than their own thoughts and emotions and thus decrease their stress and self-defeating thoughts. One participant remarked during the interview that “I just lose myself in the particulars of the task and it takes my mind off of whatever emotions I was feeling.” Another reported that “it feels like an escape...it gives me something else to focus on.”

Regarding the second theme, participants indicated that an art book is significantly different from a written journal with most reporting that they have a preference for the art book. While almost all of the participants had the experience of keeping a written journal at one point in time, only three participants reported that they currently engaged in this type of written expression. One participant remarked,
“Journaling doesn't always help me because it can encourage me to ruminate.” Another stated, “I sometimes have trouble with journals because I have so many thoughts I can't get them all out, like I forget some...sometimes I can't get the words out right.”

The third theme endorsed by two-thirds of all participants was an increased understanding of others. Participants stated that by participating in the art group they began to develop both an understanding and awareness of others' feelings and ideas. For example, one participant stated that “you can learn a lot about the (other) people around you by looking at their book.” A different participant remarked that “working together (in group) we kind of saw a little more of each others' opinions and creativity and got a better feel for each other.”

Nearly two-thirds of all participants (63%) reported that the creation of art conveys deeper feelings and more understanding than using words alone. This theme has implications for the inclusion of this type of therapeutic work with individuals with eating disorders, which will be discussed more in depth later. One participant stated that, “It almost surprises you a little bit more what comes out (while making art). Sometimes a picture can say so much more than words. And sometimes it's hard to find the words. But if you just let loose and put down a picture that feels right, it's a lot different (than using written words alone).” Another participant reported that it was difficult for her to communicate using words alone because “I'm not used to that kind of thing so to be using my book, I could say whatever I needed to say. I could have a message or an abstract message and the other person could receive it and understand it.”
During the analysis of the qualitative data, four themes emerged that were endorsed by half of the participants. These themes included 1) having an increased self-awareness, 2) feeling as if the art technique helped them to better communicate with others, 3) increased pride, and 4) an increased sense of relief. With regards to an increased sense of self-awareness, a participant remarked that working in her art book “makes me more aware of what I’m thinking and how I’m feeling.” Another participant reported that making art has “made me think more about the emotions I have and realize more things about myself...it's made me discover more things about myself.” One participant reported that creating her art book helped her to stop denying that she had an eating disorder. She stated that while noticing that she was being critical of her artwork and comparing her artwork with others' artwork, she realized that she often was overcritical and compared her “thinness/fatness” against others.

Half of the participants reported that their art books allowed them to more easily and effectively communicate with others. Participants reported that the ideas of 'others' included peers in the eating disorders program, parents, eating disorder staff members, doctors, and therapists. One participant stated that “I think (the book) has helped me to be able to say the things that I wasn't sure how to say.” Another participant remarked that what she had created in her book was “what it is like in my own head.”

Feelings of increased pride emerged as a prominent theme in the study. Half of the participants reported feeling proud of the work they created during the therapeutic art book group. One participant stated, “I'm proud of the art work that I've made and so it's nice to just look at the things that I've made and feel good about them.” Another reported
that, “sometimes I would be kind of proud (of my art). Like I accomplished this and I really liked how it turned out.” Other participants remarked that it felt good to not only feel proud of their own art work but also realize that others with whom they had shared their art work also felt proud of it.

The idea of the art work creating a sense of relief was reported by half of the participants. One stated, “I think (making my art book) has made it easier to recover because I'm not flooded with emotions...I can just let them out.” Another reported that making a page in her book felt like “a weight being lifted from my shoulders.” Participants spoke about the creation of art as being helpful in order to remove emotions they typically ruminated on and thus, after book group, they felt less overwhelmed or anxious.

Two additional themes emerged during qualitative data analysis. While endorsed by only 37% of participants, they are important to mention as they seem to contribute to participants' experience of the art making process. These themes are 1) “art book as a marker of progress” and 2) “feelings of increased confidence.” Several participants remarked that they often looked back at what they had created in their books between book groups as a way to see how far they had come in their recovery. One individual stated, “It's interesting to go back and remember what place I was in at the time I made it (the page) and realize what place I'm in now.” Another reported, “I think (art making) just kind of makes me happy because it makes me realize how long I've been in the program and how much I've improved and stuff.” Other participants discussed the effect of book making on their overall feelings of confidence. While several study participants
stated that they felt they learned they could be both creative and artistic, others reported a more general sense of self-confidence. One participant stated, “I think the book made me feel a lot more confident, a lot more trustworthy in myself, and knowing that if I was feeling something and I didn't know what it was, I just need to express myself so I could just do it and be proud of it. So I think it did boost my confidence.”

In conclusion, quantitative results indicated that there were no significant changes across time in global self-esteem, self-esteem related to art, mood states, and general distress. However, in the two instruments given weekly (SUDS and VAS) trends toward improvement were seen most strongly after the first therapeutic art book making session, followed by changes occurring after the second session. Change in the third and fourth sessions continued to show an upward trend, though the incremental increase was slight. Qualitative results suggested that four main themes were found, with the most endorsed theme being the use of art as a distraction technique. Overall, participants reported the intervention helped distract them from emotionally difficult feelings, promoted better understanding of others, was significantly different from a written journal, and expressed “more than words.”

Chapter five will present a discussion of the results of this study as well as limitations and suggestions for future research.
CHAPTER FIVE

Discussion

The focus of this study was to learn about the participants' perceptions of therapeutic art book making, including their emotions during the intervention, what processes might be at work during book making, and the relationship of book making to their self-esteem. Additionally, the study was concerned with looking at the effectiveness of the book making intervention to decrease emotional states common in adolescents with eating disorders and increase self-esteem in this same population. Qualitative and quantitative results were presented in Chapter 4 in order to best illustrate participants' experiences while taking part in a therapeutic book making intervention. The findings of this preliminary study provide new understandings of the processes involved when adolescents diagnosed with eating disorders create art books.

Throughout this chapter, possible explanations for both quantitative and qualitative results will be discussed. This will be followed by personal observations of the investigator, limitations of the study, and a discussion of future research ideas.

Quantitative Data

During this study, participants were given four self-report measures to quantify their self-esteem and mood states. These measures were the Rosenberg Self-Esteem Scale (RSE), the Hartz Art Therapy Self-Esteem Questionnaire (HARTZ AT-SEQ), the
Subjective Units of Distress Scale (SUDS), and a set of four Visual Analogue Scales of mood states common to individuals with eating disorders (VAS). While each of these scales measure slightly different aspects of either mood or self-esteem, together they help to create a picture of an individual's functioning while participating in the therapeutic art book making intervention.

Both the RSE and the HARTZ AT-SEQ initially showed no significant change before the first and after the fourth group sessions. However, when one participant's unusually negative responses were removed from the data as a whole, a stronger trend of improvement was found on the HARTZ AT-SEQ. These results may be explained by looking at the concepts the RSE and the HARTZ AT-SEQ measure. The RSE is a measure of global self-esteem, while the HARTZ AT-SEQ measures self-esteem in relation to art making. It is reasonable to assume that after four therapeutic art book making sessions, participants felt more confident and competent at art making than they did prior to beginning the group. However, the intervention did not appear to impact global self-esteem, or how participants felt about themselves as individuals. This result was somewhat expected, though, as the study's length, four weeks, was a relatively short time to achieve a change in global self-esteem.

It was found that participants' scores on the VAS and the SUDS showed the most improvement after the first session. There was also strong though not statistically significant improvement during the second therapeutic art book making session. Improvement continued to show a slight upward trend in sessions three and four. The significant improvement in scores following the first intervention session may have been
due to the novelty of the therapeutic art book making intervention. Most participants had never experienced art therapy prior to their exposure to it in this group and stated after the first group how much they enjoyed “doing something different” than was typically done on the Eating Disorder Unit (EDU). Also, most patients enter the EDU at the beginning of the week. The group occurs at the end of the week. In observations of the EDU milieu over a number of months preceding the study, the investigator noted that many of the patients on the unit had a positive impression of the group and looked forward to it on a weekly basis. Because of this, patients who had been both on the unit and in the group for some time often talked positively of the group to new patients, creating a positive expectation for the group. Therefore, when new participants entered the group they may have been expecting it to be “fun” or “helpful” or some other positive connotation. Improvements during the second group may have occurred because of the continued novelty of the group. It is important to note that participants often talked about working in their books during the week, making art outside of the group. Therefore, as their weeks in treatment progressed, the intervention may have become less novel and more routine due to making art while in their bedrooms, during free time, or with their families. Another explanation for the slower but steady increases in improvement as the group progressed may be due to participants' involvement in treatment generally. While in the Eating Disorders Program, patients received individual and family therapy, medication management, nutritional therapy, milieu treatment, dance/movement therapy, recreational therapy, and music therapy. As the weeks progressed, participants' negative moods (as
measured by the VAS and the SUDS) may have decreased generally, resulting in less room for improvement.

Prior to this study, published or unpublished reliability for the HARTZ AT-SEQ had not been calculated (L. Hartz, personal communication, June 27, 2011). This measure's reliability in this study, though, was found to be 0.93 at both administrations (before the first group session and after the fourth group session), indicating that it is a reliable questionnaire to use in future studies to assess self-esteem in relation to art therapy. The RSE was found to have a reliability of 0.94 at both administrations in this study, though this is not an unexpected result as the RSE has been found to have high reliability in multiple previous studies. The correlation between the RSE and the HARTZ AT-SEQ was 0.84, p<0.01. This result indicated that the two measures are highly correlated and measure a similar construct. While both the RSE and the HARTZ AT-SEQ measure self-esteem, their differences lie in the type of self-esteem they are measuring. As has been stated previously, the RSE measures global, or overall, self-esteem, while the HARTZ AT-SEQ measures self-esteem in relation to art making. Put more generally, the HARTZ AT-SEQ looks at the relationship between an individual's feelings about themselves while making art in art therapy.

Qualitative Data

Several major themes began to emerge from interviews with the adolescents which helped to illustrate the participants' perceptions of how the intervention helped them. Many of the themes found are consistent with results found in previous art therapy research (Briks, 2007; Chambala, 2008; Heenan, 2006; Nesbitt and Tabatt-Haussmann,
Sixty-six percent of participants expressed that the art functioned as a distraction from difficult emotions, providing them with a refuge from these. In a study focused on the use of art therapy to reduce anxiety, Chambala (2008) wrote that “art making enables clients to step back” from their anxiety, effectively providing them with a distraction from this emotion. It is estimated that many adolescents diagnosed with eating disorders also have a comorbid anxiety diagnosis as well. One study found that in a sample of 833 girls aged 15 to 17 years old, 31.4% had some type of subclinical eating disorder concern or behavior. Of these, girls with subclinical anorexia nervosa had a higher prevalence of separation anxiety disorder, depression, and generalized anxiety disorder (Touchette, Henegar, Godart, Pryor, Falissard, Tremblay, & Cote, 2011). Therefore, an intervention that can help relieve adolescents' anxiety through distraction can prove helpful. Other studies have investigated the role of art therapy to distract, not for anxiety management, but for stress management in a health care setting. Nesbitt and Tabatt-Haussmann (2008) wrote that through art therapy, patients focus less on the stress and anxiety of an illness, decreasing their perception of pain. They also reported that art therapy interventions offered within a group setting “focus the attention away from the physical sensation of pain to other aspects of the person” (p. 58). Russell (1995) wrote about the ability of art therapy to distract from physical pain during hospitalization. She stated that “when the patient is involved in manipulating art materials and creating, he or she is focused on the artwork and therefore, is distracted from his or her pain” (p. 40). While some individuals with eating disorders may have physical pain as well as emotional pain, the ability of art
therapy to distract from both of these is very helpful to eating disordered adolescents as it allows them to focus not on their own emotions but on something external that draws their attention elsewhere.

Participants also spoke about the ability of the book making intervention to help provide them with a greater understanding of others. While this finding is most likely due to the intervention occurring in a group, it would be interesting to see if this same theme would emerge if the book making intervention was used not in a group setting. Art making in a group has been found to allow friendships to develop among individuals who have difficulty with social interactions (Van Lith, Fenner, & Schofield, 2009). Individuals with eating disorders may have difficulty creating peer relationships due to anxiety or a feeling of being 'different' than their peers. They may also feel embarrassed or shameful about their eating behavior and avoid others to prevent having to talk about this subject. However, in a group where all the participants know that the other participants also have an eating disorder, a sense of camaraderie appears to develop, fueled by taking part in a shared activity (art making) and then sharing and explaining their art work to other group members.

This has been found to be true in other literature related to art therapy group work with teenagers. For example, Haen and Weil (2010) wrote that being an adolescent member in an art therapy group provides an act of perspective-taking that allows teenagers to view a situation from outside of themselves and better understand another's perspective. The authors also stated that group members gain a sense of connection to
each other that comes from sharing their own emotions and resonating with another's feelings (Haen & Weil, 2010).

Many of the adolescents in the study expressed that through art they felt they could better express themselves than if they had been using words alone. They talked of art being more expressive than words, of it being a more meaningful type of communication because with it they could portray more precisely how they were feeling without fear of being misunderstood by others. Art therapy is often considered to be an appropriate therapy for adolescents with anxiety and eating disorders because of its ability to engage teenagers in a way that is less intimidating than traditional talk therapy. Expressing oneself by creating form, color, and design is often more beneficial than solely relying on words for self-expression and communication (Chambala, 2008). As Liebmann (1990) stated, “A picture is often a more precise description of feelings than words, and can be used to depict experiences which are hard to put into words. It can sometimes be a good way of cutting through tangled verbosity” (in Chambala, p. 187).

Van Lith, Fenner, and Schofield (2009) explained that creating art can at times be more effective than talking for some individuals, as some of what clients may need to express seems to be 'beyond words.' Other studies have found that art making tends to be less threatening to adolescents than traditional talk therapy and opens an avenue of personal expression that is often enjoyable for them (Briks, 2007). Briks stated that “through art the adolescent may express a broad range of feelings, fantasies, and inner conflicts” that may be more difficult to express using words alone (2007).
Half of the participants expressed that making an art book allowed them to increase their self-awareness. In other studies, the same finding has been found (Van Lith et al., 2009; Chambala, 2008; and Briks, 2007). Through art therapy, adolescents can become more closely connected with their feelings, gain insight, and further their personal understanding (Briks, 2007). Art making also allows them to look inside themselves and identify their strengths and weaknesses by creating visible depictions of their emotional states (Chambala, 2008). Chambala writes that by “examining tangible images and forms representative of the self allows a person to gain a clearer understanding of factors contributing to his or her personal development and what life changes need to be made” (2008, p. 187). Connecting with art tends to involve a process of knowing and understanding the self (Van Lith, et al., 2009).

Fifty percent of the participants endorsed that creating the therapeutic art book allowed them to better communicate with others. Participants reported feeling more able to communicate with other group members, their parents, friends, and therapists about their feelings and thoughts, both about their eating disorders and about other topics as well. Briks (2007) wrote that through the use of art therapy, verbal communication is often enhanced. Riley (1998) commented that when adolescents are placed in art therapy, they often paradoxically begin to open up and speak to the therapist when they are not pressed to do so (in Briks, 2007). Briks stated that teenagers often want to talk about the images they have created. The images, he says, “serve as a catalyst for discussion, furthering communication of the individual's concerns and issues” (Briks, 2007, p. 4).
An increase of pride in their artwork was mentioned by half of all participants. Many reported a feeling of pride when looking at their artwork and creating a sense of “feeling good” about what they had done. In a study examining hospice patients' experiences with art therapy, Kennett (2000) found that many reported pride accompanied by a desire to produce the best art work possible. Additionally, she found that participants' sense of self-esteem was increased by working creatively. In the Merriam-Webster dictionary, pride is defined as “a sense of one's own proper dignity or value; self-respect” (Merriam-Webster, n.d.). While this differs from self-esteem, it does appear to be related to it. Branden (1969) believed that self-esteem is the sum of self-confidence, a feeling of personal capacity, and self-respect, a feeling of personal worth. Briks (2007) wrote that when adolescents participate in art making self-esteem and self-pride are promoted.

Half of all participants also reported feeling an increased sense of relief after creating their artwork. Participants spoke of a feeling of catharsis, of letting go of troubling emotions or thoughts that had been making connecting with others and progressing in treatment more difficult. This same concept has been found in the literature. Briks (2007) has found that “artistic expression permits release or externalization of conflicted, disturbed, or complex emotions, anxiety, and inner conflict” (p. 4). He concluded that art then, can function to order internal chaotic emotions and experiences, providing a safe way to contain all emotions, and thus provide patients who engage in art making with a feeling of relief. In Van Lith, Fenner, and Schofield's study regarding how art facilitators regard the creative process of their patients, they noted that
for many patients “art making seemed to be a necessity because of the need to release and resolve issues” (2009, p. 7). They reported that a sense of relief may come for participants through completion of the art work or through talking about the work or by throwing the art work away. A participant in their study noted, “all the tightness goes out of the body, it's like you've just recognized something” (Van Lith, et al., 2009, p. 7). This sentiment is similar to those expressed by participants in the present study, where several participants spoke about feeling as if a “weight had been lifted” from their bodies.

About a third of participants spoke about the fear that their art work may be judged as “not good enough” by other group participants and facilitators. Several noted that the fear was greatest before sharing their work at their first art group, though they often stated that their fear began to subside after noticing that they did not feel judged after sharing with others. This does not appear to be an uncommon fear among art therapy group participants in the literature. Kennett (2000) noted that participants in her study expressed anxiety that their work may not be good enough. Many authors have also reported that it is important to create a safe space for participants so that they will not feel judged or will more readily feel comfortable. Persons (2009) stated that “the therapist never criticized their (the participants') work, attempted to avoid giving art instruction, and created a safe and accepting environment” (p. 436). In another study, participants reported that the art space created a feeling of security which enabled them to feel free to address and explore their own personal issues (Heenan, 2006). In this same study, the author noted that the art therapy program promoted “a supportive, reflective environment that enabled individuals to deal with their experiences in a way that had
hitherto been deemed impossible” (Heenan, 2006, p. 186). Creating a supportive, safe art environment would appear to be important to decrease participants' feelings of negative judgment in regards to their art work.

Using their art work as a marker of treatment progress was a theme commented on by about a third of participants. Many reported feeling that their art books have given them a record that they can look back at in the future and see how far they have progressed, both in terms of symptom reduction and in a more personal growth context. Briks (2007) also noted the same concept. He wrote that the art work created during art therapy is a tangible, lasting product that can serve as a permanent record for review and reflection of the therapeutic process.

The final theme mentioned by about a third of all participants was an increase in confidence. This theme has been noted by many authors writing about the perceived benefits of art therapy. For example, one study noted that art making helps to generate passion in participants and gives them confidence (Van Lith, et al., 2009). Another study reported that participants endorsed feeling more self-confident after engaging in an art therapy program (Persons, 2009). The author wrote that “art therapy boosted the boys' positive self-confidence, regardless of their artistic ability, and this self-confidence seemed to generalize to other areas” (Persons, 2009, p. 443). This result is similar to several participants' comments in this study, where it was reported that creating art in their art books helped them feel more trusting in their abilities both as an artist and as a creative individual. Other art therapy studies have noted that creating art work has helped to boost participants' sense of self-esteem. Branden (1994) wrote that self-esteem
consists of two components: self-efficacy, the confidence in one's ability to think, learn, choose, and make appropriate decisions, and self-respect, the confidence in one's right to be happy, have confidence in individual achievements, success, friendship, respect, love, and fulfillment. The relationship to confidence then, can be seen by also looking at the concept of self-esteem. Kennett (2000) wrote that self-esteem was one of the four main categories found when researching the experiences of terminally ill patients taking part in an art therapy program. She stated that “the inherent self-esteem of patients is restored when they work creatively in whatever way may be appropriate” (p. 423). Heenan (2006) wrote more extensively about self-esteem and art therapy, stating that the participants in her study reported feeling both improved self-esteem and self-confidence. Before the art therapy intervention began, participants in her study, which was comprised of mentally ill adults at a community mental health organization, reported low levels of self-confidence and self-worth. She stated that this affected their ability to communicate, interact with others, and caused them to have lower aspirations. However, after engaging in art therapy, participants reported feeling improved self-esteem, which in turn enabled them to engage in more positive social behavior. She writes that, “a number of the participants claimed that the classes gave them the self-esteem to address underlying mental health difficulties that they had hitherto felt unable or unwilling to discuss” (Heenan, 2006, p. 184). There is a broad consensus within the literature that positive self-esteem is crucial to mental and social well-being. It influences choices, aims, goals, and the ability to deal with life's challenges (Harter, 1999; Mann et al., 2004; Rutter, 1992). Mann et al. (2004) have argued that an understanding of the development of self-
esteem and its active promotion and protection are critical to the enhancement of both physical and mental health. Therefore, the fact that a third of the participants in the study talked about the therapeutic art book making intervention as increasing their self-confidence, appears to be a noteworthy finding.

Strengths and Weaknesses of Mixed Methods Research

Mixed methods research allows the researcher to investigate both qualitative and quantitative data, painting a fuller, more complete picture of the data and the subject being researched. Using a mixed research design allows the researcher to add more meaning to numbers through the use of narrative interviews, enhancing the data with participants' own experiences. Conversely, quantitative data adds precision to words and narratives (Onwuegbuzie & Teddlie, 2003). This research design also allows the researcher to answer a broader and more complete range of research questions because he or she is not confined to a single study method or approach. In this study, for example, the effectiveness of decreasing participants' negative mood states using the therapeutic art book intervention was studied as well participants' experiences while in the intervention group.

Mixed methods research also presents various difficulties that are often not present in monomethod research. This type of design requires the researcher to be familiar with and understand both data collection and data analysis in quantitative and qualitative research and know how to appropriately mix these methods (Onwuegbuzie & Teddlie, 2003). Also, with this method, depending on time and availability of research staff, a researcher may not be able to be as in-depth as he or she would like with either
the quantitative or qualitative portion of the study. Johnson and Onwuegbuzie (2004) point out that engaging in mixed methods research can be difficult for a single researcher to accomplish, depending on sample size, especially if two or more approaches are used concurrently. Another weakness of this methodology involves sample size. Typically, qualitative studies have smaller sample sizes while quantitative studies have larger sample sizes. In order to find effects in quantitative studies, often larger amounts of data must be collected. If the same amount of qualitative data is collected, qualitative data analysis could be potentially very time consuming. If a smaller sample size is collected, as is usual in qualitative research, it may be more difficult to find an effect in the quantitative data (Johnson & Onweugbuzie, 2004).

In this study, the researcher found that combining both quantitative and qualitative data allowed for a fuller picture of participants' experiences to be seen and understood through the use of objective questionnaires and interviews. One of the difficulties in this study was obtaining an adequate sample size. The sample that was obtained, eight participants, allowed for each participant to be interviewed in-depth. However, a larger sample may have bolstered the quantitative data's results, making the findings more robust.

**Personal Observations**

It should be noted that all observations about the art bookmaking group stem from the author’s immersion in the group as an observer even before beginning the study. The author functioned as an observer in the group for one year prior to the beginning of this
study and also as an observer throughout the duration of the study. Given this, the following observations were noted.

While the group consisted of children and adolescents of various ages, from 7 years old to 21 years old, the majority of the group members were adolescents aged 13 years old to 18 years old. While only adolescents and adults aged between 12 years old and 21 years old were invited to take part in the study, the age of the participant did appear to make a difference during the interview portion of the study. The older participants’ interviews yielded much richer qualitative data, as they appeared to be more able to use abstract thinking and ideas to talk about their experiences with the artwork and to draw parallels and connections between the artwork and their eating disorder, relationships with others, etc. Younger participants tended to give more concrete answers and seemed to have a much different experience in group, valuing the artwork produced in group more for its recordkeeping ability (i.e., a snapshot of their life while in the eating disorders program) as opposed to using the artwork in a more personally insightful way. This is most likely due to the developmental stage of the participant. Older adolescents tend to be more able to engage in abstract thinking, while younger adolescents and pre-adolescents may still be thinking in a concrete manner.

Another observation made during the study focused on the researcher’s initial difficulty in obtaining subjects for the study. In order to obtain participants, at the beginning of each week, the researcher asked the staff of the Eating Disorders Unit to make a list of all eligible new program members. The researcher then gave these individuals a brief overview of the art bookmaking group and explained the study and
what would be involved if they chose to participate in the study. If the individual was interested, the researcher proceeded with the informed consent process and also contacted the participant’s parent(s) for consent if the participant was under 18 years old. At the beginning of the study, many individuals did not seem interested in taking part in the study. Several individuals agreed to take part in the study, though when their parent was contacted, the parent stated that their child was actually not interested in being in the study. Parents stated that their children have difficulty expressing their feelings to others. This resulted in at least two participants withdrawing from the study. Because the nature of an eating disorder represses authentic emotion, adolescents with eating disorders often have difficulty stating their emotions, either due to anxiety, lack of awareness of their own feelings, or misidentification of their feelings. In these instances, the individual’s symptomology appears to have led to initial agreement to participate in the study and then withdrawal from the study.

Limitations

Several limitations have been identified in this study. These include the limited amount of time in which data collection occurred and only studying individuals from one site.

Data were gathered on each participant for only four weeks. This time was shorter if, due to being discharged, the participant needed to leave the study earlier. Four weeks is a relatively short time to engage in data collection, though this was necessary in this study due to the adolescent population available for study and the site at which data were collected. In a hospital setting, patients are often discharged due to a number of
different reasons, including improvement in symptoms, insurance authorizations that are not renewed, or being withdrawn from treatment by their parents. Due to the short data collection period, it could not be ascertained if participants' improvements would have leveled off after several more sessions or if they would have continued to display a slight upward trend in mood elevation after the intervention sessions.

As stated above, all participants were receiving either inpatient or partial hospitalization treatment at an Eating Disorders Unit in a children's hospital setting. Studying participants at various other types of sites, including participants at other children's hospitals, may be beneficial, as the participants in this study were limited due to geographical region. Also, other treatment sites may have a different approach to eating disorders treatment, thus placing more (or less) of an emphasis on self-esteem.

The results of the study were limited to the book medium. While a book does help to physically contain pages, which may be helpful for adolescents who have a tendency to lose items, it would be useful to look at this intervention with other medium types. It is unclear if the same results would be found if using canvas or single pieces of paper instead of a book format. Therefore, the results in this study do not generalize to other art therapy formats.

Finally, it should be noted that this study was a pilot study, and as such, results are preliminary. Very little research has been done using therapeutic art books and this type of art therapy intervention is, most likely, very different from art therapy interventions at other adolescent eating disorder treatment facilities.
Future Research Directions

While participants engaged in an art bookmaking group, the medium (the art book) appears to be less important than the fact that participants were engaging in art making. During the interview process, participants did not speak about any benefits specific to this medium, even though the art therapist leading the group has noted such benefits through personal observation. Katherine Reed, art therapist and therapeutic art book group leader, has stated that art-making within the contained boundaries of a book allows individuals to track time chronologically and review their past emotions and thoughts. She has also stated that due to the nature of a book, when one page is completed it can be turned and can “enter the safety of the past” (K. Reed, personal communication, September 2008). However, while participants did speak about using the artwork in their books as a marker of progress, where they could review the emotions they had had and the therapy progress they had made, they did not state that this was specific to the artwork occurring in a book. One could argue that individuals could do the same thing by making artwork on pieces of paper or canvases. Participants in the study did not talk about the containment aspect of the art book either. While it makes sense to think overwhelming emotions become more manageable when reduced to 6” by 8” size, participants did not note this in their interviews. They also did not talk about creating an emotionally difficult picture and then being able to “move on” from that emotion by simply “turning the page.” Indeed, several participants talked about feeling increased anxiety due to the medium, feeling as if there were “too many pages to fill” and having trouble beginning the art work due to this. Therefore, it is necessary to view the art made
in the group as being less specific to the medium and more specific to the benefits of art making generally.

Future research should focus on either viewing the art work as art therapy, regardless of medium, and hone in on more specific aspects of usefulness of an art therapy intervention with this population or should introduce questions related to the medium. This study did not include any specific medium-related questions in the semi-structured interview. In future research it may be interesting to ask participants if the type of medium relates to their ideas around how the art making has been helpful in their lives.

In future, it would also be helpful to exclude younger participants from the study, as these participants seemed to be developmentally unable to engage in the abstract thinking necessary to draw inferences between the artwork, their eating disorders, and how these two things impact and change their lives. In non-adolescent focused studies, including adults over age 21 may also help to provide richer qualitative data. While younger participants did report benefits from this intervention, the benefits noted were less noticeable than for older participants. Younger participants tended to report enjoying the intervention because it provided a distraction from difficult emotions but did not relate to the artwork as being helpful with relationships or allowing them to have a fuller understanding of their eating disorder. One 12 year old participant, when asked if creating art in the art book had influenced the understanding of his/her eating disorder, responded, “Not really, cause when I look at my pictures I don't really see a story behind it. I don't think I'm that type of person that can understand things that way. I look at it
and think, 'Oh, that's a heart burning (a picture of what he/she had drawn in the book).'”

This response seems to illustrate a concrete understanding of the art made and an inability to draw abstract meaning into an understanding of the artwork. Older participants, capable of abstract thought, may have noted that the heart might represent the feeling of love and the flames engulfing the heart may mean that he/she has never felt love or is worried that he/she will never find love, as capacity for love is being “burned up,” or some other interpretation.

While this study looked at participants' perceptions of their moods and self-esteem over a four week period, in future research it may be helpful to assess these dimensions over a longer time span. While the SUDS and VAS showed the most significant upward trends after the first and second sessions, these trends began to level off, though still showed a slight upward trend, after the third and fourth session. If mood states were assessed for a longer time period, it would be helpful to see if this overall trend continued and if, or when, the positive effect of the intervention on mood states leveled off. This could help determine the maximum number of group sessions needed for patients to benefit from this intervention. It was difficult to assess participants for longer than four weeks during this study due to using an inpatient and partial hospitalization population of adolescents. However, in an intensive outpatient or an outpatient population, longer assessment times due to increased duration of therapy intervention may be more possible.
References


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Appendix A

Rosenberg Self-Esteem Scale (RSE)

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle SA. If you agree with the statement, circle A. If you disagree, circle D. If you strongly disagree, circle SD.

1  On the whole, I am satisfied with myself.   SA  A  D  SD
2 * At times, I think I am no good at all.     SA  A  D  SD
3  I feel I have a number of good qualities.  SA  A  D  SD
4  I am able to do things as well as most other people. SA  A  D  SD
5 * I feel I do not have much to be proud of.   SA  A  D  SD
6 * I certainly feel useless at times.         SA  A  D  SD
7  I feel that I am a person of worth, at least on an equal plane with others. SA  A  D  SD
8 * I wish I could have more respect for myself. SA  A  D  SD
9 * All in all, I am inclined to feel that I am a failure. SA  A  D  SD
10 I take a positive attitude toward myself.    SA  A  D  SD

Scoring: SA=3, A=2, D=1, SD=0. Items with an asterisk are reversed scored, that is, SA=0, A=1, D=2, SD=3. Sum the scored for the 10 items. The higher the score, the higher the self esteem.
### Appendix B

Hartz Art Therapy Self-Esteem Questionnaire (HARTZ AT-SEQ)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Through art making I have become a better learner</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>12. I have found new ways to start projects</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>13. I express my uniqueness through my art</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>14. I have found new ways to be a positive leader in art therapy</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>15. Art therapy is a place that I can fit in</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>16. I have found that I am capable of being more artistic and creative than I previously thought myself to be</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>17. I see that I have things in common with others when we make art projects together</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>18. I feel people accept my art</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>19. I feel others care about what I have to express</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>20. Being creative helps me feel good about myself</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>8. I have found new ways to connect with peers in art therapy</td>
<td></td>
</tr>
<tr>
<td>9. Symbols and metaphors help others understand me</td>
<td></td>
</tr>
<tr>
<td>10. Colors, shapes and textures help me communicate with other people</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C

Visual Analog Scales of Affective States

Rate your emotional states. Please place a vertical mark on the line below to indicate where you feel your emotional states are today.

No depression ____________________________________________ Severe depression

No anxiety ________________________________________________ Severe anxiety

No anger _________________________________________________ Severe anger

No shame _________________________________________________ Severe shame
Appendix D

Subjective Units of Disturbance Scale

How bad is the feeling?

On a scale of 0-10, where 0 is the worst feeling possible and 10 is no bad feeling possible, state a number to show how much bad feeling or distress there is right now, when you think about your day.

0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10
(the worst feeling).............................................(no bad feeling)
Appendix E

Interview Questions

1. How much experience did you have with art before you entered the Eating Disorders Program?
2. Before becoming a patient at The Children's Hospital, did you ever use art to express your feelings or thoughts?
3. What was it like to start your book?
4. Do you think it is different from a written journal? If so, how?
5. Has creating your art book made you think or feel differently about yourself, and, if so, how?
6. Has creating your book influenced your understanding of the eating disorder, and, if so, how?
7. Has your book helped you communicate with others about the eating disorder? If so, how?
8. When you are working in your book, what are you experiencing?
9. There are different parts of book group -
   - What is the most important part of book group for you?
   - What does it feel like to share your book during “check out?”
   - What is it like for you to hear others’ share their books?
10. Do you use your book between book groups? If so, how?
11. Do you look back through your book? If so, how does reviewing you book affect you?
12. Do you think book group has impacted your recovery, and, if so, how?
13. After your discharge from this program, do you think you will continue to use art in this way?

If re-admit:

14. Have you used your book since you were last in the program? If so, how?
### Table 3. Common Themes Found Across Participants

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sample Quotations</th>
<th>Percent Endorsed By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art as distraction</td>
<td>“I just lose myself in the particulars of the task and it takes my mind off of whatever emotions I was feeling.”</td>
<td>66.00%</td>
</tr>
<tr>
<td></td>
<td>“It just kind of takes me away from everything else. Kind of like a break.”</td>
<td></td>
</tr>
<tr>
<td>Significant difference from written journal</td>
<td>“I sometimes have trouble with journals because I have so many thoughts I can't get them all out, like I forget some or something. Sometimes I can't get the words out right.”</td>
<td>66.00%</td>
</tr>
<tr>
<td>Increased understanding of others</td>
<td>“You can learn a lot about the people around you by looking at their book.”</td>
<td>66.00%</td>
</tr>
<tr>
<td></td>
<td>“Working together we kind of saw a little more of each others' opinions and creativity and got a better feel for each other.”</td>
<td></td>
</tr>
<tr>
<td>Art expressing more than words</td>
<td>“With art you can just make a picture. The one picture says so much you know.”</td>
<td>63.00%</td>
</tr>
<tr>
<td></td>
<td>“A picture is worth a thousand words. It is different to express yourself through art instead of words. It feels more creative.”</td>
<td></td>
</tr>
<tr>
<td>Increased self-awareness</td>
<td>“It kind of makes me more aware of what I'm thinking or how I'm feeling or things like that...”</td>
<td>50.00%</td>
</tr>
<tr>
<td></td>
<td>“It's (doing art) made me think more about the emotions I have, made me realize more things about myself. It's made me discover more things about myself.”</td>
<td></td>
</tr>
<tr>
<td>Increased communication</td>
<td>“It's helped me communicate with others about myself in general, I mean what my interests are, what my mood is at the time, what my worries are, or anxieties are.”&lt;br&gt;“I think it helped me be able to say the things that I wasn't sure how to say.”</td>
<td>50.00%</td>
</tr>
<tr>
<td>Increased pride</td>
<td>“Sometimes I would be kind of proud (of my art). Like I accomplished this and I really liked how it turned out.”&lt;br&gt;“I'm proud about the art work that I've made and so it's nice to just look at the things that I've made and feel good about them.”</td>
<td>50.00%</td>
</tr>
<tr>
<td>Increased sense of relief</td>
<td>“Usually after sharing a page I would feel relieved and that felt really good to just get it out and talk about it.”&lt;br&gt;“I think it's made it easier to recover. Cause you're not like all flooded with emotions and filled with them. You can just let them out.”</td>
<td>50.00%</td>
</tr>
<tr>
<td>Fear of judgment</td>
<td>“I was afraid of being judged on it (my artwork) I guess, but I wasn't (judged).”</td>
<td>37.00%</td>
</tr>
<tr>
<td>Marker of progress</td>
<td>“It's given me something that I can look back on in the future and just remember how far I've come.”&lt;br&gt;“I think it just kind of makes me happy because it makes me realize how long I've been in program and how much I've improved and stuff.”</td>
<td>37.00%</td>
</tr>
<tr>
<td>Increased confidence</td>
<td>“I know now that I can be creative and artistic.”&lt;br&gt;“It's kind of made me realize that I'm more creative than I give myself credit for.”</td>
<td>37.00%</td>
</tr>
</tbody>
</table>
Appendix G

Therapeutic art book