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A qualitative study of bariatric patients and their social and emotional experiences after surgery

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This is to certify that the doctoral dissertation by

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ABSTRACT

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Dissertation Submitted in Partial Fulfillment

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ABSTRACT

Previous research has indicated that the majority of individuals who undergo bariatric surgery have histories of psychological disorders. Only a paucity of research has examined the social and emotional effects of bariatric surgery on patients. Using Kelly's personal construct theory as the conceptual framework, this phenomenological study was designed to gain more insight into how this life-altering bariatric surgery transforms patients socially and emotionally. Fifteen participants who had undergone bariatric surgery in the past 10 years were interviewed for the study. The interviews were transcribed and coded. Similar themes found within the interviews were identified as the primary themes of the study. The majority of the participants saw themselves as "the same" in regards to their personality and sense of self, but felt different physically after undergoing surgery. With weight loss, the participants felt more confident and stable than prior to the surgery. The majority of the participants described how they felt more confident in social situations and felt as though they blended in more. This study enhances social change initiatives through allowing medical professionals, mental health professionals, bariatric patients, and the overall community to have a better understanding of the significant psychosocial changes that bariatric patients undergo after surgery. Thus, the findings of this study may aid clinicians and physicians in providing treatments and information to bariatric patients that can assist patients in adjusting and coping effectively to the social and emotional changes and challenges that they will experience post surgery.

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DEDICATION

To my parents, whose love and support made this doctoral experience possible; and to my friends, family, and colleagues who supported me throughout this long journey.

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INTRODUCTION TO THE STUDY

Background of the Problem

Approximately two-thirds of the people living in the United States are categorized as overweight (body mass index [BMI] of 25.0 kg/m² and above). Of those individuals considered overweight, almost one-half are obese (BMI of 30.0 kg/m² to greater than 35.0 kg/m²) (Greenberg et al., 2005; Hagler et al., 2007). Individuals with a BMI between 35 kg/m² and 40 kg/m² are considered to be clinically obese and may be candidates for bariatric surgery if the individual also has significant obesity-related comorbidities (Brolin, 2002). An additional category is termed extreme obesity, defined as a BMI greater than 40kg/m². The prevalence of extreme obesity has increased significantly since the 1990's (Malone & Alger-Mayer, 2004). Extremely obese individuals suffer stigmatization, prejudice, and discrimination as a result of their appearance and therefore also experience psychological consequences (Dixon, Dixon, & O'Brien, 2002).

Psychiatric Comorbidities

Past research has documented a high prevalence of psychiatric comorbidities in extremely obese patients, including eating disorders, especially binge eating, depression, and anxiety (Black, Goldstein, & Mason, 1992, Greenberg et al., 2005; Sarwer et al., 2004). Eating disorders that are prevalent among extremely obese individuals include; night eating syndrome (NES) and binge eating disorder (BED) (Allison et al., 2006; Malone & Alger-Mayer, 2004; Sarwer et al., 2004). NES is characterized by awakening from sleep to eat (Allison et al., 2006). NES is believed to consist of four primary

symptoms: morning anorexia, evening hyperphagia, nocturnal awakenings, and eating during waking episodes (Allison et al., 2005; Sarwer, Wadden, & Fabricatore, 2005). NES is not currently recognized as a psychiatric diagnosis. However, preliminary data suggest that the eating patterns of persons with NES are explicit from those seen in other eating disorder diagnoses (Allison et al., 2005; Sarwer et al., 2005).

The main features of BED are eating large amounts of food within a 2-hour period of time while feeling a loss of control (Allison et al., 2006). This behavior must occur at least twice a week. *The Diagnostic and Statistical Manual of Mental Disorders* (Fourth Edition, American Psychiatric Association [APA], 2000) states that three additional behaviors are required to meet the criteria of binge eating disorder. Examples of such behaviors include; eating rapidly, eating until uncomfortably full, eating when not hungry, eating alone due to embarrassment, or feeling disgusted or guilty after binges (Allison et al., 2006).

The psychological consequences of obesity can include lowered self-esteem, clinical depression, and anxiety. Overall, rates of anxiety and depression are three to four times higher among obese individuals in comparison to thinner individuals (Greenberg et al., 2005). The psychological disturbances that obese individuals often experience leads to social isolation, difficulty with physical mobility at a job, increased employee absenteeism, and economic and social discrimination (Dixon et al., 2002; Greenberg et al., 2005).In addition, obese individuals experience additional work-related psychosocial stress such as discrimination at work (Greenberg et al., 2005).

Discrimination

Research in obesity demonstrates that there are widespread acceptable stereotypes and negative attitudes toward obese people (Carr & Friedman, 2005; Cossrow, Jeffery, & McGuire, 2001; Gee et al., 2008; NaPier, Harrington-Meyer, & Himes, 2005). Obese persons are often characterized as physically unattractive, flawed in personality, lazy, and personally responsible for their overweight condition (Carr & Friedman, 2005; Cossrow et al., 2001). These stereotypes may stimulate prejudices and maltreatment of obese people, thereby possibly hindering their social and economic success. Unlike racial prejudice, society and individuals freely express prejudicial attitudes towards obese people, justifying these attitudes on the basis that weight is controllable (Cossrow et al., 2001; Myers & Rosen, 1999). Obese individuals have reported job discrimination, social exclusion, exploitation by weight loss and fitness centers, denial of health benefits, difficulty finding suitable clothing, mistreatment by doctors, public ridicule, and humiliation (Carr & Friedman, 2005; Cossrow et al.; Myers & Rosen, 1999). Past research has demonstrated that obese people are less likely offered jobs or positively evaluated in comparison to nonobese candidates (Carr & Friedman; Cossrow et al.; Rothblum, Miller, & Garbutt, 1988).

A comprehensive literature review by Roehling (1999) summarized various work-related stereotypes reported in over a dozen studies. Overweight employees were speculated to lack self-discipline, be lazy, less conscientious, less competent, sloppy, disagreeable, and emotionally unstable (Roehling, 1999). Obese employees were also thought to think slower, have poorer attendance records, and be poor role models

compared to non-obese individuals (Paul & Townsend, 1995; Roehling). The described wage penalty may take various forms such as lower wages of obese employers for the same job performed by non-obese individuals, fewer obese employees being hired in high level positions, and denial of promotions to obese employees (Carr & Friedman, 2005; Puhl & Brownwell, 2001).

Myers and Rosen (1999) explored the experiences of weight stigmatization among extremely obese individuals by asking obese individuals to list stigmatizing situations they had encountered and how they coped. The patients were also surveyed about the frequency with which they encountered each form of stigmatization and employed each form of coping (Myers & Rosen, 1999). The most frequent stigmatizing situations faced by the participants were hurtful comments from children, other people making unflattering presumptions about the obese person, and encountering physical barriers or environmental barriers such as chairs being wide enough. The participants reported facing these situations between once a year and several times in their life. Another frequent stigmatization reported by the participants included being stared at and being subjected to unsolicited negative comments (Myers & Rosen, 1999). Infrequent experiences were job discrimination and physical assault, which occurred on average less than once in the participants' lives (Myers & Rosen, 1999). The most frequent coping responses reported by obese individuals were the use of positive self-statements, attempts to head off negative remarks by socially disarming people who might otherwise be critical and using faith, religion, and prayer for self-consolation (Myers & Rosen, 1999). The participants reported that they used these coping methods once a month to several

times a year. Infrequently used coping strategies included educating oneself and others about obesity and obesity stigmatization, being insulting and rude to the stigmatizer, seeking therapy because of stigma, and resorting to physical violence (Myers & Rosen, 1999).

Cossrow et al. (2001) also interviewed several overweight individuals regarding their experiences with discrimination. The participants in their study reported that when they did practice healthy behaviors, such as exercise, they were confronted with harassment and discrimination (Cossrow et al., 2001). Other participants reported that they felt that their healthcare provider focused on their weight rather than on the particular health problem that lead to the visit (Cossrow et al., 2001).

Recent research has examined the cost-effectiveness of drug treatment and surgery for obesity (O'Brien et al., 2006; Puhl & Brownell, 2001; Santry, Gillen, & Lauderdale, 2005; Snow et al., 2005). In 1999 Greenway et al. found that weight losses produced by medications (fenfluramine with mazindol or phentermine) reduced costs more than the standard treatment of comorbid conditions such as intensive weight loss programs (diet and exercise), very low calorie diets, and lifestyle modification (individualized guidance) .Gastric bypass surgery demonstrated more substantial effects, with lower costs and greater long-term weight loss maintenance in comparison to low-calorie diets and behavior modification, as well as significant reductions in BMI, incidences of hypertension, and absenteeism from work compared to matched controls (Martin, Tan, & Horn, 1995; Narbo, Agren, & Johnson, 1999; Puhl & Brownwell, 2001;

Santry et al., 2005; Snow et al., 2005). Medical coverage for bariatric surgery has been inconsistent. Surgical treatment is often not reimbursed even though diseases such as hypertension and diabetes with less validated treatments are reimbursed (Martin, White, & Lindstrom, 1998; Puhl & Brownwell, 2001). It is typical for health insurance plans to specifically exclude obesity treatment for coverage (Gibbs, 1995; Puhl & Brownwell, 2001). The denial of medical coverage for bariatric surgery for obese people, may have medical consequences, but also denies people an opportunity to lose weight, maintain weight loss, lose weight quickly, which itself may reduce biases and discrimination.

Obesity Related Physical Morbidity and Mortality

Obesity is also associated with substantial morbidity and mortality as an established risk factor for the following medical conditions: cardiovascular, metabolic, neoplastic, and orthopedic conditions (Dymek et al., 2005; Maggard et al., 2005; Padwal, 2005; Saltzman et al., 2005). Comorbid health diagnoses that are frequently diagnosed in obese individuals include diabetes, hypertension, coronary artery disease, dyslipidemia, and cerebrovascular disease (Padwal, 2005). Different types of cancer such as breast, colon, uterine, and ovarian cancers incidences have also been shown to increase with BMI (Saltzman et al.).Obesity alters every organ system and increases perioperative risk (Saltzman et al., 2005).

Being overweight at the age of 40 reduces life expectancy by at least three to six years (Bult, van Dalen, & Muller, 2008; Peters et al., 2003). Mortality risk has been shown to be highest for the most extreme obese individuals (BMI > 40) and has been

linked with impaired quality of life and increased health care spending (Arterburn et al., 2004; Arterburn, Maciejewski, & Tsevat, 2005; McTigue et al., 2006). In the United States, obesity results in increased risk for mortality, however, risk estimates have been downgraded, that is most likely due to improved treatments for comorbidity related health risks. (Gregg, Chang, & Cadwell, 2005; Omalu et al., 2007). Any population-level obesity related mortality risk would depend on many factors including race, socioeconomic status, comorbidity control, and genetics (Omula et al., 2007). Mokdad et al. (2003) reported that each year an estimated 300,000 adults in the United States die of health-related causes related to obesity. A study conducted by Flegal et al. (2007) found that obesity was positively associated with surplus mortality from both coronary heart disease (CHD) and other forms of cardiovascular disease.

Behavior management and dieting approaches for the treatment of obesity have been proven to be unsuccessful for extreme obesity (Bult, Van Dalen, & Muller, 2008; Herpertz et al., 2004) which has led to the development of surgical alternatives. Pharmacotherapy (prescription or over the counter weight loss medication) and lifestyle modification such as dieting and exercising typically results in an eight to ten percent loss of initial body weight for obese individuals (Gibbons et al., 2006). Weight regain after discontinuation of these behavioral and prescribed medication treatments are often considerable (Gibbons et al., 2006). The only intervention that has been shown to be effective in maintaining long-term weight loss was group behavior therapy sessions that are held weekly to bi-weekly (Glinski, Wetzler, & Goodman, 2001; Perri, 1998). Compared to behavior therapy without additional therapist contacts, extended treatment

in the form of weekly or biweekly therapy sessions improved the maintenance of treatment effects for as long as one year following initial therapy in one study (Perri, 1998). Continued adherence to the changes in eating and exercise patterns induced during the initial treatment phase appears to be the mechanism responsible for the better outcomes observed in extended behavioral treatments (Perri, 1998). Long-term pharmacotherapy used in conjunction with dietary counseling or behavior therapy, may facilitate weight loss, but maintenance is more difficult due to the possibility of rare but dangerous side effects of long-term pharmacotherapy (Perri, 1998). Most prominent among these side effects are primary pulmonary hypertension and valvular heart disease, a serious condition that may be associated with high levels of circulating serotonin (Connolly et al., 1997; Perri, 1998). Short –term memory problems were also reported as side effect in other studies (Perri et al., 1995). Many bariatric patients make multiple attempts at losing weight prior to opting to undergo surgery. The most commonly reported methods used for weight loss are self-directed diets and commercial programs (Gibbons et al., 2006). Thus, bariatric surgery appears to be the only effective long term treatment for extreme obesity (BMI > 40 kg/m²) without significant risk of severe side effects (Dymek et al., 2002;Gibbons et al., 2006).

Bariatric Surgery

Bariatric surgery is a type of surgery that is used to induce weight loss where the surgical procedures involved reduce the size of the stomach in order to promote a feeling of fullness thus bariatric patients eat less food. Bariatric surgery, also most commonly

known as gastric bypass and lap-band surgeries are the most effective treatments in achieving long-term weight loss in the extreme obese population (Glinski, Wetzler, & Goodman, 2001; Malone & Alger-Mayer, 2004; Omalu et al., 2007). Typically, the surgical treatment of obesity results in 20-40 kg (44 to 88 pounds) of weight loss and 10-15 kg/m² reduction in BMI (Buchwald et al., 2004; Bult, van Dalen, & Muller, 2008; Maggard et al., 2005). The weight loss due to surgical treatment is on average maintained for up to 10 years and is frequently accompanied by improvements in some comorbid conditions (Maggard et al., 2005). Lifestyle modification leads to modest weight loss in comparison to bariatric surgery with an average weight loss of 5.6 kg, which is equivalent to 12 pounds and 5.53 ounces (Bult et al., 2008; Knowler et al., 2002). Pharmacological treatment of obesity can generate on average a weight loss of about 5kg, which is equivalent to 11 pounds (Bult et al., 2008; Li et al., 2005; Pi-Sunyer et al., 2006). Past research suggests that there is no evidence of mortality benefits from this level of modest weight loss (Snow et al., 2005). Recovery from comorbidities such as Type 2 Diabetes is highly associated with bariatric surgery (Buchwald et al., 2004; Bult et al., 2008). In fact, past studies have suggested 76.8% of patients who underwent bariatric surgery have shown recovery from Type 2 Diabetes (Buchwald et al.; Bult et al., 2008). Studies have demonstrated that at 24 months after surgery, the incidence of high blood pressure, diabetes, and lipid abnormalities also been shown to be lower in patients who have undergone bariatric surgery (Sjostrom, Lissner, & Sjostrom, 1999; Snow et al., 2005).

Past research has indicated that about a year and a half to two years after bariatric surgery, weight loss from surgery stops, and a significant number of individuals begin to regain the weight they had lost (Hsu et al., 1998; Niego et al., 2007). Weight regain, if it occurs, typically begins 18 to 24 months after surgery (McMahon et al., 2006). McMahon et al. (2006) found that after Roux-en-Y gastric bypass (RYGB) surgery patients typically lose on average .5-1 pound daily for the first 3 months, .25-.50 pound daily from 3 to 9 months, and .25 pound daily for up to 12 months. They also discovered that by 7 to 10years after bariatric surgery about two thirds of patients maintained a weight loss of 50% or more (McMahon et al.; Pories et al., 1995). Continued maladaptive eating behaviors, such as binge eating or overeating, may be contributors to reduced or reversed success of bariatric surgery, further contributes to long-term medical and psychological comorbidity (Larsen et al., 2006; Niego et al., 2007). Hsu et al. (1996) found that 4 of 9 patients who binge ate prior to surgery continued this behavior after surgery, whereas only one patient developed a new binge eating disorder following surgery. McMahon et al. (2006) pointed out that although bariatric surgery has proven to be an important tool in the treatment of extreme obesity; such surgery must be followed with a significant lifestyle change toward healthy eating and regular physical activity to achieve the desired goal of improved health through weight reduction.

Herpertz et al. (2004) pointed out that there has been an increased demand for bariatric specialists to perform obesity surgeries. Therefore, these authors recommended that these surgeons who work in private centers should work with mental health professionals who are familiar with obesity in general and obesity-related problems, such

as binge eating disorder. Herpertz et al. (2004) also recommended that future research should focus less on psychiatric comorbidity such as personality disorders as possible predictors of post surgery weight-loss and instead focus on specific aspects of eating behaviors. Niego et al. (2007) suggested that bariatric patients should be monitored for binge eating behaviors following surgery to identify patients who can benefit from additional psychological treatment for their binge eating. Studies have also indicated that pharmacological treatment post surgery should be considered (Guerdjikova, Kotwal, & McElroy, 2005; Herpertz et al., 2004; Zilberstein et al., 2004).

Longitudinal follow-up in most bariatric surgical studies is short-term and incomplete (Buchwald et al., 2004; Courcoulas & Flum, 2005). Therefore, past research suggests that it is difficult to determine the long term effects of bariatric surgery procedures and there are many different variables to take into account. Patients who do not participate in ongoing follow-up care may be different from those who do participate in follow-up care. Therefore, this may limit the conclusions about efficacy and safety. Bariatric interventions are often associated with different amounts of weight loss over time and each of the commonly performed procedures has different amounts of weight loss than other procedures (weight loss with adjustable gastric banding may take more time than weight loss with Roux-en-Y gastric bypass) (Courcoulas & Flum; O'Brien, Dixon, & Brown, 2004). Follow-up is essential after both laparoscopic Roux-en-Y gastric bypass and adjustable gastric banding, but may have a greater impact on weight loss after adjustable gastric banding (Shen et al., 2004). Patients who do not return for regular follow-up after adjustable gastric banding can expect to lose less weight due to the

restrictive nature of the procedure and the fact that the band needs to be adjusted over time for patients to have the feeling of being full (Shen et al., 2004).

Statement of the Problem

Although there has been a significant rise in the number of individuals who are undergoing bariatric surgery, there is limited qualitative data available from patients who have undergone bariatric surgery (Malone & Alger-Mayer, 2004). Past research suggests high rates of psychological disorders among bariatric patients (Kalarchian et al., 2007; Sarwer et al., 2004). However, the prevalence and clinical significance of psychiatric disorders among bariatric candidates for weight loss surgery are not fully known and understood. Preoperative clinical interviews of patients have suggested that 20% to 70% suffer from a current or past psychiatric disorder (Sarwer et al., 2004). Mood disorders are the most common conditions, diagnosed in19% to 60% of patients (Sarwer et al., 2004).Sarwer et al. (2004) reported anxiety disorders, including generalized anxiety disorder and social phobia, have been diagnosed in up to 48% of surgery candidates (Sarwer et al., 2004). Kalarchian et al. (2007) suggest most of the published studies have not included assessment of the full range of DSM-IV Axis I and Axis II disorders among bariatric patients and this data is critically needed due to the fact that the majority of individuals undergoing weight loss surgery are or have been treated for various psychological disorders. The extent of how these psychological disorders influences these patients is unknown.

Much of the research regarding bariatric patients has been related to the improved medical health of patients after surgery (Kalarchian et al., 2007; Padwal, 2005) but few studies have researched the mental health of bariatric patients prior to and after surgery (Kalarchian et al., 2007; Sarwer et al., 2004). Quality of life and body image of bariatric patients after surgery has been studied only rarely (Dixon, Dixon, & O'Brien, 2002; Dymek et al., 2002). Dymek et . al. (2002) found that patients who had undergone gastric bypass surgery experienced considerable changes in mood, self-image, eating behavior, and health related quality of life (HRQL) (Dymek et al., 2002; Waters et al., 1991). Dixon et al. (2002) found that improvements in appearance evaluation after Lap-Band surgery were highly significant and importantly sustained. Greater improvement in patients' appearance evaluation was associated with greater improvement in mental measures of quality of life and lower Beck Depression Inventory (BDI) scores (Dixon et al., 2002). Dixon et al. also found that a greater percentage of excess weight loss was associated with greater improvement in the patients' evaluation of their appearance.

Most of the research regarding bariatric patients has been quantitative, and there are very few studies that have used qualitative research approaches to explore patients' experiences of having bariatric surgery. Thus, this study is aimed at using a qualitative research approach in order to learn more regarding the experiences of bariatric patients and to find out more information regarding their mental health after they undergo surgery. The information that can be obtained from this study is essential in helping behavioral health and medical professionals understand the psychosocial implications of undergoing weight loss surgery. There is severely limited research in this area and with

the increasing number of individuals undergoing surgery, it is crucial for prospective patients and professionals working with these patients to understand the psychosocial outcomes of undergoing a life altering procedure and how these weight loss procedures can change peoples' lives.

Purpose

To date, there is a lack of standardized evaluation measures used by mental health professionals when conducting behavioral health assessments with prospective bariatric patients. Outcomes of surgery can be quite variable among patients. Therefore, this study is aimed toward gathering information in relation to life after surgery from a psychosocial perspective as a means in assisting prospective bariatric patients better understand the possible psychosocial outcomes of undergoing bariatric surgery. The rise of individuals undergoing bariatric surgery has been increasing each year. In 2007, more than 200,000 bariatric surgeries were performed (American Society for Bariatric Surgery, 2007). However, the National Institute of Health estimates that 12 million patients would qualify for bariatric surgery. Thus, the need for more in-depth information reviewing how bariatric surgery changes the lives of patients is critically needed to better understand the psychosocial outcomes of undergoing a procedure that changes an individual's anatomy and life.

Theoretical Framework

Several theories were considered for this proposed study. Such theories included; humanistic theories, social theories, health behavioral change theories, and self-efficacy theories. Humanistic theories tend to look at the meaning of positive human motivation

and how an individual can become their best self. One of the theories related to health behavioral changed that was reviewed included: the health belief model (HBM). The HBM attempts to define two types of health beliefs that make a behavior in response to illness more or less attractive; perceptions of the threat of illness and evaluation of the effectiveness of behaviors to counteract the threat (Baranowski et al., 2003). Albert Bandura's theory of behavioral change in relation to self-efficacy was also reviewed as a theoretical framework for the proposed study. Bandura (1977) hypothesized that expectations of personal efficacy determine whether coping behavior will be initiated, how much effort will be expended, and how long will it be sustained in the face of obstacles. The aforementioned theories were ruled out as possible theoretical frameworks for the proposed study as they do not assist in defining or understanding a broader range of psychosocial variables.

A foundational theory that assisted in understanding the psychosocial aspects of undergoing bariatric surgery was personal construct theory (PCT) developed by George Kelly in 1955. The constructivist framework theorized and investigated how human beings create systems for meaningfully understanding their worlds and experiences (Raskin, 2002). The essence of PCT is that personal identity is defined by the way we decipher or understand our personal worlds. Therefore, it is a phenomenological approach. A premise of phenomenological psychology is that perception is a proximal cause of behavior (Kelly, 1955; Watson & Watts, 2001).

Kelly's full theory of personal constructs is detailed but its main points are summarized (Kelly, pp. 7-14 as cited in Bannister, 1970):

1. Individual's construct systems make his or her world more predictable.
2. Individuals' construct systems can grow and change.
3. Individual's construct systems influence his or her expectations and perceptions.
4. Some constructs, and some aspects of individual's construct systems, are more important than others.
5. An individual's construct system is his or her truth as he or she understands and experiences it, nobody else's.
6. Construct systems are not always internally consistent.
7. The extent to which one person can understand another's construct system is a measure of that person's empathy.

In PCT, the self is viewed as constructed, not discovered (Raskin, 2002). It is generated by the way a person successively defines himself or herself. According to PCT, deeply embedded constructions of self are most often developed early in life, especially prior to the development of language. These are referred to as core constructs and it can be an ongoing task for people to reconstrue these aspects of themselves. Neimeyer (1985) used a personal construct perspective to suggest that moderately depressed people have construct systems that are less organized than those of people who are either not depressed or highly depressed. Non-depressed people are described as having generally positive views of self while highly depressed people have consistently negative views of self. More ambivalent views of self are found, however, among moderately depressed people and these ambivalent constructions lead to the moderately depressed person to

experience conflict when evaluating self (Chambers, Trinh, & Parsley, 1986). Personal construct theory (PCT) was chosen due to this theory being an overall more comprehensive theory that does not just look at just one variable such as the social or behavioral aspects of bariatric patients. PCT is a broader, more comprehensive theory in comparison to humanistic, social, health behavior change, and self efficacy theories and it is a more appropriate theory for this study in that it allows for many different psychosocial variables to be addressed in relation to bariatric patients. PCT guided the study in looking at cognitive processes, internal processes, social, behavioral, and emotional states of bariatric patients.

Research Questions

The purpose of this study was to use a phenomenological research approach to gain insight into the world of bariatric patients and how the patient's identity and affective states have changed or stayed the same after surgery and to discover what variables have influenced the patients' perceptions of self. Thus, the purpose of the study was to gain meaningful insight into the personal constructs of bariatric patients. PCT relates to the phenomenon of patients undergoing bariatric surgery. After an individual undergoes bariatric surgery their bodies change and thus their perceptions of self generally change, thus relating to principal of PCT. The current research using qualitative methods is limited in demonstrating how patients adjust, cope, and view themselves after surgery. After experiencing dramatic weight loss, bariatric patients are faced with psychological, social, and physical changes creating change in their perceptions of

themselves. After surgery, personal constructs of bariatric patients, therefore, would significantly change and influence their social and emotional functioning.

There is a need for research focusing on the personal constructs and psychosocial variables of post-bariatric surgery success as there is inadequate literature related to this topic to date. This study will add to the paucity of research focusing on the psychosocial variables that affect personal constructs and personal identity in post-surgical bariatric patients. Therefore, this study was guided by the following research questions to better understand that psychosocial variables that influence bariatric patients:

1. In what way are the personal constructs of post-bariatric patients influenced by psychosocial variables?
2. Do the personal constructs of bariatric patients affect the outcome of bariatric surgery?
3. How do bariatric patients' world views and relationships change based upon their post-surgical weight reduction?
4. In what way do bariatric patients constructs of self aide in the weight loss process?
5. In what way do bariatric patients' personal constructs hinder the weight loss process?
6. Do the personal constructs of bariatric patients affect their social relationships and emotional functioning after surgery?
7. Do the personal constructs of bariatric patients affect their eating behavior after surgery?

Social Implications

A more complete understanding of how the patient's perceptions of self affect change in relation to the psychosocial variables in their life would be of benefit to patients, mental health professionals, and bariatric surgeons. Individuals who choose to have bariatric surgery most often have a history of psychological treatment and psychological disorders. This study helped in gathering more information as to what psychosocial variables aide in recovery after bariatric surgery and what variables hinder recovery in relation to psychological factors such as mood, support, and behavior. Therefore, researchers who are interested in public health and studying the societal impacts of obesity and how psychosocial variables may be reduced by undergoing bariatric surgery will be interested in this study. Insurance companies and economists can gather data from this study to be used in understanding how bariatric surgery may allow for the reduction of long term medical treatment by eliminating or reducing comorbid conditions that exist with obesity. This study could have implications for expanding coverage of mental health benefits and support services for post-surgery patients. Additionally, a better understanding of the relationship among these variables with the bariatric population could lead to the development of interventions to improve adjustment after undergoing bariatric surgery. Few qualitative studies have been completed in the area of bariatric surgery, and the findings of this study could lead to future qualitative and quantitative studies. The data collected from this study could lead to larger quantitative

studies where standardized assessments could be used to confirm the information collected from this study. Furthermore, this information could be used to improve both assessment and treatment efforts for mental health and medical professionals working with obese patients who are contemplating bariatric surgery.

Assumptions

The following assumptions were applied to this study:

Patients who undergo bariatric surgery experience social and emotional changes as a result of losing weight and making many different changes in their lifestyle. These social and emotional changes and experiences can be positive or negative and influence patients in different ways based upon their social and emotional psyche, coping skills, and perception of self. Patients who lose a considerable amount of weight will develop a new perception of themselves after undergoing bariatric surgery and will develop new perceptions of their worldview. Patients who have positive social and emotional support and a positive self- perspective will have better outcomes to surgery in comparison to patients who have negative or zero social and emotional support.

Limitations

Several confounding variables were potential problems for this study. The participants in this study were all individuals over the age of 18 years old and have undergone bariatric surgery. Therefore, the outcome of this study can only be generalized to this specific population. The majority of participants (10 participants) for this study were selected by convenience sampling in that the participants were recruited from one Weight Loss Surgery Center in Newport News, VA. Thus, the sample that was used in

this study led to an unrepresentative sample in terms of gender, income level, education level, and race in that they were recruited from just one region of Virginia. There was only one male participant in the study, the rest of the 14 participants were all female. Five of the participants in the study were recruited by word of mouth from a surgery center located in Salisbury, MD.

Another limitation of this study was sample size. However, when looking at past qualitative research on this topic, researchers (Boccheri, Meana, & Fisher, 2002; Ogden, Clementi, & Aylwin, 2006) appear to agree that great depth and breadth of information can be achieved from a small sample size as this was taken into consideration when developing the sample size for this study. Mortality and maturation rates were considered as possible threats to validity as this population frequently has co-morbid medical and psychological problems. Very few patients die from having bariatric surgery; however, patients have died from their comorbid health problems after surgery such as heart conditions and having blood clots. Many bariatric patients have histories of depression and anxiety. It was considered that participants with histories of mental health disorders might agree to participate in the study and begin an interview and then become uncomfortable and decide not to finish participating in the study. Thus, maturation was considered and could have affected this study if participants were not available for follow- up interviews or completing interviews. However, this was not in the end a problem, as will be discussed in chapter 5.

Another limitation to this study is that there was the use of a single coder and interpreter of the data gathered. This could make it difficult to measure the reliability of

the codes and themes generated by the data. However, this limitation is unavoidable given that this study was a single student research study. Thus, the information was well documented to possibly allow for future research. In addition, faculty members assisted in the interpretation of the results.

Definition of Terms

Extreme Obesity: A body mass index (BMI) greater than 40 kg/m² (Malone & Alger- Mayer, 2004).

Body Mass Index: The calculation of dividing weight (in kilograms) by height (in meters) squared. (Devlin, Yanovski, & Wilson, 2000).

Gastric Bypass: Gastric bypass involves creating a small stomach pouch in the upper quadrant of the stomach using staples or laser to permanently close the remaining area of the stomach (Shingole, Owings, & Kozak, 2005). This pouch is then connected to the small bowel. The stomach volume is decreased to <30ml, which requires a permanent change in eating habits (Shingole et al., 2005).

Bariatrics: The branch of medicine that deals with the causes, prevention, and treatment of obesity.

Bariatric Surgery: Also known as weight loss surgery, refers to the various surgical procedures performed to treat obesity by modification of gastrointestinal tract to reduce nutrient intake and/or absorption. Bariatric surgical techniques are divided into two groups: malabsorptive and restrictive procedures (Bult, van Dalen, & Muller, 2008). Malabsorptive procedures induce decreased absorption of nutrients by shortening the functional length of the small intestine. Restrictive operations reduce the storage

capacity of the stomach and as a result early satiety arises, leading to a decreased caloric intake.

Summary

The rate of bariatric surgeries is growing in the United States with the increased rate of individuals with obesity. People with obesity face social, emotional, and physical problems. There is limited research that has focused on what psychosocial variables affect bariatric patients after undergoing surgery. Previous research with bariatric patients has focused on how patients are doing medically and physically after surgery rather than socially and emotionally. This study aimed to discover the social and emotional impact on bariatric patients. The researcher looked at past research involving bariatric patients to help guide this research project. Chapter Two of this dissertation will discuss this past research and how the past research guided the research questions for this dissertation. The lack of literature regarding bariatric patients and psychosocial variables will also be discussed in Chapter Two. Chapter Three will outline the plan of action to carry out the research project for this dissertation. Recruitment, participant selection, data collection, and data analysis will be discussed in Chapter Three as well. Chapter Four will discuss the findings of the study and how these findings were gathered. The primary themes that were found in the data that was gathered for this research project will also be discussed in this chapter. Chapter Five will discuss the interpretation of the findings, the conclusions gathered by findings, and recommendations for future research and how the information from this study can be used by other professionals.

CHAPTER 2:

LITERATURE REVIEW

Introduction

The researcher used various databases through Walden University's online library to gather information regarding patients and bariatric surgery. The databases that were used included: ProQuest, Health Science-Sage, EBSCO, MEDLINE, Nursing and Allied Health Source, Ovid Nursing Journals, PSYC ARTICLES, Psychology-Sage and PsycInfo. The researcher also conducted a Google scholar search to find journal articles that included past research involving bariatric patients. A search of online journals regarding obesity was also conducted to assist in finding information to include in the study's literature review. The search terms that were used included the following: *Bariatric, bariatric patients, psychosocial, psychosocial variables, psychological disorders, mental health, qualitative, weight loss surgery, weight loss, bariatric surgery, prejudice, obesity, comorbid conditions and obesity, recovery after bariatric surgery, health and obesity, success after bariatric surgery, recovery after bariatric surgery, eating behaviors, eating disorders, and social support.* These terms were searched alone or combined in multiple ways to gather past literature that would guide or be pertinent to this study.

The increasing prevalence of obesity has led to an increased use of bariatric surgery in the treatment of severely obese individuals (Herpertz et al., 2004; Pedal, 2005). Extremely obese patients are being referred for bariatric surgery due to evidence

that surgery is more effective than nonsurgical treatment for weight loss and control in patients with a BMI of 40 kg/m² or greater (Bult, Van Dalen, & Muller, 2008; Maggard et al., 2005; Snow et al., 2005). Serious complications can occur with bariatric surgery and therefore a careful selection of patients is essential to ensure that those with the greatest predicted benefit undergo these procedures (Bult et al., 2008). In 1991 the National Institutes of Health created a consensus panel convened and developed criteria for bariatric surgery and these criteria are still widely followed today (Harvard Medical School, 2008). The criteria included encouragement of a multidisciplinary approach both to assess patients and to help them through recovery. The experts recommended that patients should be evaluated by a team that includes medical, surgical, nutritional, and psychiatric experts (Harvard Medical School, 2008). However, the panel did not specify what type of psychological assessments to perform as no national guidelines have been developed (Harvard Medical School, 2008).

Schneider and Mun (2005) reported the commonly accepted criteria for bariatric surgery as the following:

1. BMI ≥ 40 kg/m² or BMI ≥ 35 kg/m² with significant obesity-related comorbidities.
2. Age between 16 and 65 years.
3. Acceptable operative risks.
4. Documented failure at nonsurgical approaches to long-term weight loss.
5. A psychologically stable patient with realistic expectations.

6. A well informed and motivated patient.
7. Commitment to prolonged lifestyle changes.
8. Supportive family/social environment.
9. Resolution of alcohol or substance abuse.
10. Absence of active psychosis and untreated severe depression.

Research concerning age and BMI criteria is ongoing (Bult, Van Dalen, & Muller, 2008) although most of the comorbid conditions caused by obesity are an argument in favor of bariatric surgery (Bult et al., 2008). Weight loss surgery patients are at risk for complications from the medical problems (comorbidities) associated with obesity as well as from the surgery itself (Buchwald et al., 2004; Saltzman et al., 2005; Steinbrook, 2004). Medical guidelines suggest that individuals who are excluded from undergoing bariatric surgery include patients with unacceptable operative risk including those with unstable or severe coronary heart disease, severe pulmonary disease, and other conditions thought to compromise anesthesia or wound healing (Fernandez et al., 2004; Nguyen, Rivers, & Wolfe, 2003; Saltzman et al., 2005). Males older than 50 years old with a BMI > 50 kg/m², and hypertension, obstructive sleep apnea, and/or Type 2 Diabetes are at high risk for undergoing bariatric surgery (Saltzman et al., 2005). Thus, patients undergoing bariatric surgery most often have to meet with several different health care professionals before being cleared to undergo bariatric surgery due to the risks and complications involved (Saltzman et al., 2005).

Bariatric Patient Demographics

Studies regarding the characteristics of patients undergoing bariatric procedures outside of clinical studies and on a national level have not been thoroughly researched (Padwal, 2005). The literature focusing on the overall health effects following bariatric surgery is limited (Kalarchian et al., 2007), and most studies have looked at the improved physical health of bariatric patients and not the mental and emotional health of these patients after surgery. There are several other lines of research suggesting that candidates for weight loss surgery have high rates of psychiatric disorders including depression, binge eating disorder, and night eating syndrome pre-surgery (Greenberg et al., 2005; Kalarchian et al., 2005; Sarwer, et al., 2004). Past research has established that individuals presenting for the treatment of obesity surgery are more likely to have a history of depression and anxiety than those seeking community-based behavioral treatments of obesity (Kalarchian et al., 2005).

Individuals who qualify for surgery are extremely overweight, and several studies have linked severity of obesity to specific forms of psychopathology such as anxiety, poor self-esteem, depression, and binge eating (Allison et al., 2006; Greenberg et al., 2005; Malone & Alger-Mayer, 2004; Sarwer et al., 2004; Sullivan et al, 2003). Research has demonstrated that surgery candidates reported greater depressive symptoms compared with those with less extreme obesity (Sarwer, Wadden, & Fabricatore, 2005; Wadden et al., 2000; Wadden et al., 2001). Among surgery candidates, greater depressive symptoms were typically found in younger candidates, women, and those with a poor body image, impairments in health related quality of life, or a history of severe binge

eating (Dixon, Dixon, & O'Brien, 2003; Fabricatore et al., 2003; Sarwer et al., 2004; Sarwer et al., 2005). The relationship between extreme obesity and psychopathology is complicated and it is unclear whether psychopathology is a cause or consequence of extreme obesity (Sarwer et al., 2005). Sarwer et al. (2005) point out that some reports suggest individuals may eat excessively as a maladaptive coping mechanism for psychological problems, therefore causing obesity. The adverse health effects and social stigma of extreme obesity may contribute to a mood or anxiety disorder in an otherwise psychiatrically healthy individual (Sarwer et al., 2005).

Past research has indicated that the majority of bariatric patients are women (Malone & Alger-Mayer, 2004; Sarwer et al, 2005; Sullivan et al., 2003). A total of 1107 bariatric surgeries were performed in 2002/2003 (Padwal, 2005). Of these surgical candidates 85% were women with an average age of 40 years old (Padwal). Buchwald et al. (2004) conducted a meta-analysis review of 136 fully extracted studies, which included 91 overlapping patient populations, resulting in a total of 22,094 patients undergoing weight loss surgery. Buchwald et al. (2004) found that 19% percent of the patients were men and 72.6% were women, gender was not reported for 1537 patients (8%). The overall mean age was 38.97 years (range, 16.20-63.60 years) in studies included in the meta-analysis. Severely obese people in our communities suffer stigmatization, prejudice, and discrimination as a result of their appearance (Greenberg et al., 2005; Dixon, Dixon, & O'Brien, 2002). The psychosocial disturbance produced is often manifested as social isolation, loss of job mobility, increased employee absenteeism, and economic and social discrimination (Dixon et al., 2002; Kalarchian et

al., 2007; Sarwer et al., 2004). Psychological complications of obesity may include body image disturbance and eating disorders (Allison et al., 2006; Malone & Alger-Mayer, 2006; Sarwer et al., 2004).

The most prevalent eating disorders among obese individuals are night eating syndrome (NES) and binge eating disorder (BED). NES and BED are of interest in extremely obese patients presenting for bariatric surgery for two reasons: their prevalence rates have been reported to be higher than in non-surgery-seeking samples, and the possibility remains that eating disorders may negatively influence weight loss after surgery (Allison et al., 2006). Binge eating disorder is one of the most common psychiatric disorders in patients presenting for obesity surgery, and can potentially impinge surgical outcomes (Niego et al., 2007). Past studies that have examined the relationship between presurgical eating disorders and weight loss outcomes have demonstrated mixed results. These studies found no difference in weight loss outcomes between patients with and without pre-surgical binge eating at time points ranging from six months to five years (Busetto et al., 2005; Malone & Alger-Mayer, 2004; Powers, Boyd, & Rosemurgy, 1999) In a study conducted by Malone and Alger-Mayer (2004) they found that patients with the most severe binge eating behavior before surgery showed the most improvement when assessed 12 months after surgery. On the other hand, one study found that presurgical binge eaters lost a significantly smaller percentage of excess body weight after six months than non-binge eaters (Niego et al., 2007).

Eating Behaviors after Surgery

Several studies have suggested that bariatric patients struggle to adhere to the strict low calorie postoperative diet (Anderson & Larsen, 1989; MacLean, Rhode, & Shizga, 1983; Naslund, Jarnmark, & Anderson, 1988; Sarwer, Wadden, & Fabricatore, 2005). The increased caloric consumption above patients' postoperative caloric demands may contribute to weight regain that typically begins after the second postoperative year (Hsu, Betancourt, & Sullivan, 1997; Sarwer et al., 2005; Sjostrom et al., 2004). One to two-thirds of patients report postoperative vomiting (Powers et al., 1999 Sarwer et al., 2005) and this vomiting does not seem to be a purging behavior. Instead, patients may vomit in response to intolerable foods or in an effort to clear food that has become lodged in the upper digestive track (Sarwer et al., 2005) This is referred to as plugging or frothing, is typically the result of overeating, particularly foods that difficult to digest such as pasta, bread, and dry meats (Powers et al., 1999 Sarwer et al, 2005).

Gastric dumping is common in post-operative patients who do not adhere to the strict diet they must follow. Gastric dumping includes nausea, flushing, bloating, faintness, fatigue, and often severe diarrhea (Sarwer et al., 2005) and it can be triggered by a variety of causes such as eating intolerable foods or overeating. Patient reports suggest that it most typically occurs after the consumption of foods high in sugar (Sarwer et al., 2005). Two studies by Hsu et al. (1997;1996) found that, while patients did not report any objective binge episodes (defined as the consumption of an objectively large amount of food with the experience of a loss of control) postoperatively, a significant minority reported feelings of loss of control consistent with BED. Karlsson et al. (1998)

found that 46% of patients reported either objective or subjective binge episodes (defined as a loss of control during an eating episode without the consumption of an objectively large amount of food) at longer follow up. Sarwer et al. (2005) reported that no studies have looked at changes in night eating postoperatively.

Medical Conditions

Several studies have demonstrated that obesity is associated with numerous physical illnesses (Black et al., 1992; Buchwald et al., 2004; Bult et al., 2008) and obesity is also associated with increased morbidity and mortality. The increased morbidity is assumed to be mediated mainly by insulin resistance, diabetes, hypertension, and lipid disturbances (Sjostrom et al., 2004). Severe obesity is associated with cardiovascular, metabolic, and orthopedic conditions such as diabetes, hypertension, and back problems (Black et al., 1992; Buchwald et al., 2004; Bult et al., 2008). In addition, clinically severe obesity is associated with an increased risk of morbidity and mortality from numerous related medical conditions such as coronary artery disease, diabetes, and certain types of cancer, and is associated with debilitating psychosocial consequences such as depression, low self-esteem, prejudice, and social bias (Buchwald et al., 2004; Dymek et al., 2002; Kalarchian et al., 2007 Padwal, 2005;).

Weight reduction in the short term (1 to 3 years) leads to a decline in insulin resistance, a better metabolic regulation of patients with diabetes mellitus, lower blood pressure, and a less atherogenic lipid profile (Bult et al., 2008; Stevens et al., 2001; Wood et al., 1988). The Swedish Obese Subjects (SOS) study has shown that long term weight reduction achieved by bariatric surgery substantially improves the cardiovascular risk

profile, ultimately resulting in a decrease in overall mortality (Bult et al., 2008; Sjostrom et al., 2004; Sjostrom et al., 2007). Buchwald et al. (2004) found that recovery from Type 2 diabetes was established in 76.8% of patients who underwent bariatric surgery. In the surgically treated group of the SOS study, type 2 diabetes had disappeared in 72% of the patients after 2 years (Sjostrom et al., 2004). The SOS study also demonstrated that the surgically treated patients had greater weight loss, more physical activity, and lower energy intake than the control group (patients who did not undergo bariatric surgery) over a 10 year period (Sjostrom et al., 2004).

Quality of Life

Karlsson et al. (1998) found from the SOS study that the bariatric patients demonstrated a dramatic improvement in the quality of life at two years among patients who had had surgical treatment for obesity, particularly concerning psychological performance. There is a strong positive correlation between the degree of improvement in quality of life and the degree of weight loss (Bult, Van Dalen, & Muller, 2008; Karlsson et al., 1998). In a study conducted by Schauer et al. (2000) 95% of 275 patients who underwent laparoscopic Roux-en-Y gastric bypass surgery reported improvement in quality of life. Herpertz et al. (2003) conducted a systematic review of 171 publications. A total of 40 studies focused on psychosocial outcomes after obesity surgery. They found that mental health and psychosocial status including social relations and employment opportunities improve for the majority of people after bariatric surgery thus leading to an improved quality of life (Herpertz et al., 2003). They also found that psychiatric

comorbidity, predominantly affective disorders, and psychopathologic symptoms decrease post-surgery (Herpertz et al., 2003).

A number of studies evaluated similar psychological constructs such as self-confidence, self-image, self-esteem, self-consciousness about appearance, liking oneself, and self-(dis)satisfaction (Herpertz et al., 2003; Kinzl et al., 2001; Van Gemert et al., 1998). All of the studies indicated a considerable improvement at follow-up in the above mentioned psychosocial variables for bariatric patients (Herpertz et al., 2003). Subjects in the SOS study reported that obesity related psychosocial problems turned out to be the most responsive treatment effect of weight reduction; on average, these psychosocial problems were reduced two years after the operation 63% in males and 57% in females and were significantly lower compared to control cases (Herpertz et al., 2003; Sjostrom et al., 2004).

Bariatric Surgery

Obesity is currently a pressing health issue as the rate of obesity is growing in the United States. Even more troubling is the significant growth in extreme obesity (Shingole, Owing, & Kozak, 2005). Nonsurgical treatments such as the use of various diets, including very low caloric diets, behavior therapy, or drugs have been ineffective for the treatment of severe obesity (Herpertz et al., 2004). Very low caloric diets, behavior therapy, and medication have demonstrated to be effective for mild to moderate obesity (Herpertz et al., 2004). However, long term follow up of patients undergoing a combination of reduced caloric diet and behavior therapy, shows a return to baseline weight in the vast majority of subjects in the absence of continued intervention (Herpertz

et al., 2004). Therefore, bariatric surgery has been the recommended treatment for extreme obesity (Buchwald et al., 2004; Herpertz et al., 2004; Snow et al., 2005).

History

Bariatric surgical procedures are among the few current treatments to produce sustained weight loss. Bariatric surgery was first performed in 1954 with the introduction of the jejunoileal bypass, which bypasses a large segment of small intestine to distal small intestine (Maggard et al., 2005). However, diarrhea and nutritional deficiencies were common, and this procedure was discontinued because of the complication of irreversible heptic cirrhosis (liver disease) (Maggard et al., 2005). The jejunoileal bypass was also associated with substantial long-term complications including liver failure, malnutrition, electrolyte imbalances, vitamin deficiencies, renal stones, and death in some cases (Bult, Van Dalen, & Muller, 2008). In 1981, the development of surgical staplers led to the introduction of gastroplasty procedures by Gomez and by Mason in 1982. (Maggard et al., 2005). In these early procedures, the upper portion of the stomach was stapled into a small gastric pouch with an outlet to the remaining distal stomach, which limited the size of the meal and induced early satiety (Maggard et al., 2005).

The first gastric bypass was reported in 1967 by Mason and Ito (Maggard et al., 2005). This procedure is performed by the surgeon creating a small gastric pouch with bypassing a portion of the upper small intestine. Additional modifications resulted in the Roux-en-Y gastric bypass (RYGB), a now common operation that involves stapling the upper stomach into a 30-ml pouch and creating an outlet to the downstream small intestine (Maggard et al., 2005). Another procedure is the biliopancreatic bypass, which

combines a limited gastrectomy with a long Roux limb intestinal bypass that creates a small common channel (an intestine where food and biliopancreatic contents mix) (Maggard et al., 2005). This procedure can be combined with duodenal switch , which maintains continuity of the proximal duodenum with the stomach and uses a long limb Roux-en-Y bypass to create a short common distal channel (Maggard et al., 2005).

The current bariatric operations include gastrointestinal bypasses with intestinal limbs of varying lengths influencing the processing of nutrients and the release of satiety peptides, and gastric restrictive operations such as banded gastroplasties and circumgastric adjustable banding, which limit the reservoir function of the proximal stomach and the ability to ingest a large meal (Kral et al., 2002). Gastric bypass operations also have a restrictive component, which, however, is transitory, contributing to initial weight loss (Kral et al., 2002). These operations were all developed using open surgical procedures. However, today many of the current operations can now be performed safely and less invasively with a laparoscopic approach, leading to improved perioperative outcomes including decreases in pain, complication rates, length of hospital stay, and time out of work (Kral et al., 2002).

Four operative procedures (in three classes of procedures), are in use in the United States and worldwide: gastric bypass with a standard, long-limb, or very long-limb Roux (restrictive and malabsorptive), alone or in combination with vertical banded gastroplasty; laparoscopic adjustable gastric banding (restrictive); vertical banded gastroplasty (restrictive); and biliopancreatic diversion and duodenal switch (primarily malabsorptive) (Buchwald, 2005). Certain surgeons perform one operation exclusively;

other surgeons offer the full range of operations. There is an increasing effort to match a particular patient to a particular operation (Buchwald, 2005). A worldwide survey taken from 2002 to 2003 resulted in data suggesting that gastric bypass is the most commonly performed weight loss procedure (65.1%) (Buchwald & Williams, 2003; Maggard et al., 2005). Slightly more than half of gastric bypasses are done laparoscopically (Maggard et al., 2005). Overall, 24% of cases are laparoscopic adjustable band procedures; 5.4% are vertical banded gastroplasties; and 4.9% are biliopancreatic diversion, with or without the duodenal switch. The most common surgical procedures performed include adjustable gastric banding (lap banding) and Roux-en-Y gastric bypass (Shingole et al., 2005).

Restrictive Procedures

Two- primary restrictive procedures are used: laparoscopic adjustable gastric banding and vertical banded gastroplasty. Gastric banding is the least invasive of the purely restrictive bariatric surgery procedures (Buchwald, 2005). Laparoscopic adjustable gastric banding was first introduced in the early 1990s (Buchwald, 2005). Though there was an open surgery history with gastric banding, currently this procedure is a laparoscopic operation (Buchwald, 2005). Today, there are six adjustable bands available worldwide and one approved by the FDA for use in the United States (Buchwald, 2005). Laparoscopic adjustable gastric banding is the most common procedure performed outside of the United States, primarily in continental Europe, Australia, and South America and it is the second most commonly performed procedure worldwide (Buchwald, 2005).

Lap banding is a restrictive operation that reduces the storage capacity of the stomach and as a result satiety arises leading to a decreased caloric intake (Bult et al., 2008). An adjustable gastric band is positioned around the uppermost portion of the stomach and can be adjusted to allow tailoring of the stoma outlet, which controls the rate of emptying of the pouch and meal capacity (Maggard et al., 2005). Adjustment of the band through the access port is an essential part of laparoscopic adjustable gastric banding therapy (Buchwald, 2005). Appropriate adjustments, typically performed up to six times annually, are critical for successful outcomes (Buchwald, 2005). Weight loss after laparoscopic adjustable gastric banding is about 50% of the excess body weight (EBW) and about 25% of the BMI at 2 years (Buchwald, 2005). Because weight loss with this procedure may be progressive over time, these figures may represent an underestimation.

In general, restrictive procedures are simpler to perform, are less invasive, and are accompanied by less procedural complications than malabsorptive procedures (Bult et al., 2008). The vertical banded gastroplasty and the laparoscopic adjustable gastric band represent the current most frequently performed restrictive procedures (Bult et al., 2008). The advantage of the laparoscopic adjustable band procedure is that the case of excessive vomiting or reflux following the operation can be reduced. Operative (30-day) mortality for laparoscopic adjustable gastric banding when performed by skilled surgeons is about 0.1% and operative morbidity is about 5% (Buchwald, 2005).

There are unique long-term complications of laparoscopic adjustable banding, which include gastric prolapse, stomal obstruction, esophageal and gastric pouch dilaton,

gastric erosion and necrosis, and access port problems (Buchwald, 2005). Use of a prosthetic device introduces additional potential problems of malfunction and infection. Laparoscopic adjustable gastric banding can be completely reversed with removal of the band, tubing, and port. For failed weight loss, revision procedures include removal of the device and performance of a restrictive-malabsorptive procedure (gastric bypass) or a primarily malabsorptive procedure (biliopancreatic diversion and duodenal switch) (Buchwald, 2005).

The vertical banded gastroplasty was introduced in the early 1970s (Buchwald, 2005). Medical reports indicate that it is a fast and simple operation that consists of the creation of a small upper gastric pouch with a restricted orifice to the rest of the stomach (Schneider & Mun, 2005). It has the advantage of not bypassing, resecting, or rearranging any part of the gastrointestinal tract, therefore if is a less invasive procedure. Buchwald (2005) reported since 1991, the percentage of patients undergoing vertical banded gastroplasty has decreased, but the operation is still performed at centers in the United States and worldwide (Buchwald, 2005). Vertical banded gastroplasty is generally performed by open procedure, but can also be performed laparoscopically (Schneider & Mun, 2005).

There are two distinct techniques used in the construction of an open vertical banded gastroplasty. Both involve forming a linear pouch the size of a finger along the lesser curvature of the stomach (Buchwald, 2005). Buchwald reports that this pouch is created by a specially designed notched stapler; the outlet of the pouch is then encircled with a silicone elastomer ring. For the Marlex mesh band gastroplasty, this pouch is

created by a linear stapler placed through a hole in the stomach made with an end to end stapler. The outlet is encircled with a mesh collar sewed to itself (Buchwald, 2005). The outlet is created to be 0.75 to 1.25 cm in diameter (Buchwald). Weight loss after vertical banded gastroplasty is about 50% to 60% of EBW, and about 25% to 30% of BMI (Buchwald, 2005). A plateau in weight loss is generally reached at two years after a slight weight increase from the weight response lowest point (Buchwald, 2005).

Operative mortality for vertical banded gastroplasty is about 0.1% and operative morbidity is about 5% (Buchwald, 2005). Comparable with other restrictive bariatric surgery procedures, vertical banded gastroplasty may be associated with vomiting. The most notable complication of vertical banded gastroplasty is lodging of a food particle, or a large pill or capsule, within the band ring (Buchwald, 2005). If this problem is not relieved spontaneously within 24 hours, endoscopic removal becomes necessary (Buchwald). Outlet obstruction resulting from adhesion formation and twisting of the ring or the band can occur and requires operative intervention because neither the ring nor the band can be endoscopically dilated. Revision of vertical banded gastroplasty for failed weight loss can be achieved by conversion to a gastric bypass or to a duodenal switch.

Malabsorptive Procedures

Malabsorptive procedures induce decreased absorption of nutrients by shortening the functional length of the small intestine (Bult, Van Dalen, & Muller, 2008) currently used malabsorptive techniques are the biliopancreatic diversion and the biliopancreatic diversion with duodenal switch (Buchwald, 2004; Bult et al., 2008; Santry, Gillen, & Lauderdale, 2005). The biliopancreatic diversion originated in Genoa, Italy and is widely

used in Europe and sparingly in the United States (Buchwald, 2004). The duodenal switch is the US adaptation of the biliopancreatic diversion and is gaining popularity in the United States (Buchwald, 2004). In both procedures, a partial gastrectomy is performed, creating a 100-150 ml gastric pouch, which is considerably larger than that of gastric bypass or the restrictive procedures and, thereby, allows larger meals in comparison with those of the other bariatric operations (Buchwald, 2005; Bult et al, 2008). Both procedures avoid leaving a nonfunctioning intestinal segment by dividing the intestine into a long enteric limb joining a long biliopancreatic limb to form a common channel 50 to 150 cm from the ileocecal valve (Buchwald, 2005). This modification avoids the toxic problems seen with the old jejunoileal procedure (Brolin, 2002).

Open biliopancreatic diversion and duodenal switch are long and difficult procedures requiring skilled surgeons and adequate experience (Buchwald, 2005; Brolin, 2002, Schneider & Mun, 2005). Weight loss after biliopancreatic diversion and duodenal switch is about 70% of the EBW and about 35% of the BMI (Buchwald, 2005). Weight loss with these procedures is at the upper end of the efficacy range (Brolin, 2002). Weight loss may be sustained without a rise from the weight lowest point (Bult, van Dalen, & Muller, 2008; Brolin, 2002). Operative mortality for biliopancreatic diversion and duodenal switch when performed by skilled surgeons is about 1% and operative morbidity is about 5% (Buchwald, 2005; Bult et al., 2008). Operative mortality accounts for percentage of patient deaths after surgery and operative morbidity accounts for the percentage of patients who experience complications due to surgery. On occasion, these procedures are associated with diarrhea as well as flatus (Buchwald, 2005). Long range

complications can consist of vitamin, mineral, and nutrient deficiencies, in particular, protein deficiency (Brolin, 2002). Biliopancreatic diversion may be associated with postoperative dumping; the duodenal switch is not (Buchwald, 2005). Normal intestinal continuity can be restored, for reversal, but the partial gastrectomy cannot be reversed (Bult et al., 2008). For failed weight loss after these procedures, shortening of the common channel has produced a desired result in some, but not all patients (Buchwald, 2005).

Combined Procedures

Gastric bypass is currently the most popular procedure performed in the United States and worldwide (Buchwald, 2005; Brolin, 2002; Schneider & Munn, 2005). The restrictive element of the operation consists of the creation of a small gastric pouch with a small outlet that on distention of food, causes the sensation of satiety (Buchwald, 2005). This restrictive element is combined with a gastrointestinal bypass as the malabsorptive element. In particular, Roux-en-Y gastric bypass is the most frequently performed bariatric procedure in the United States (Bult et al., 2008; Santry et al., 2005). It has both restrictive and malabsorptive (interference with the normal physiological sequence of digestion, absorption, and transport of nutrients) aspects. A restrictive gastric pouch is created and separated from the remainder of the stomach (Bult et al., 2008). Roux-en-Y gastric bypass is being performed laparoscopically on a growing scale (Buchwald & Williams, 2004; Bult et al., 2008; Schneider & Mun, 2005). Past research has demonstrated that the Roux-en-Y gastric bypass procedure is superior to vertical banded gastroplasty regarding weight loss (Bult et al., 2008; Sjostrom et al., 2004).

Gastric bypass can be performed by both open and laparoscopic techniques. In the United States, the laparoscopic technique has become the more popular choice of surgery (Buchwald, 2005). Weight loss after a standard 75 cm Roux gastric bypass usually exceeds 100 lb, or about 65% to 70% of the excess body weight (EBW) and about 35% of the BMI (Buchwald, 2005). Weight loss generally levels off in one to two years, and a regain of up to 20 lb from initial weight loss to a long-term plateau is common (Buchwald, 2005; Brolin, 2002). Operative (30-day) mortality for gastric bypass when performed by skilled surgeons is about 1% or less (Blackburn, & Matthews, 2001; Brolin, 2002; Buchwald; Mun, Blackburn, & Matthews, 2001; Schneider & Mun, 2005). Operative morbidity (leaks, bleeding, and wound infection) is about 5% to 10% (Buchwald, 2005; Bult, van Dalen, & Muller, 2008 Mun et al., 2001). Compared with open procedures, laparoscopic gastric bypass has a higher rate of intraabdominal complications; whereas duration of hospitalization is shorter, wound complications are lower, and postoperative patient comfort is higher (Buchwald, 2005; Mun et al., 2001).

Gastric bypass can be associated with dumping syndrome, stomal stenosis, marginal ulcers, staple line disruption, and internal hernias (Brolin, 2002; Mun, Blackburn, & Matthews, 2001). Dumping syndrome takes place when a bariatric patient has undergone gastric bypass surgery and eats too much food. There is nowhere for the food to go, therefore, it gets blocked in the intestine and causes severe cramping and problems with bowels and at times vomiting. Lifelong vitamin supplementation is recommended to avoid specific nutrient deficiency conditions, such as anemia. Ventral hernia formation is more prevalent after open gastric bypass than after the laparoscopic

procedure (Brolin, 2002; Buchwald, 2005; Mun et al, 2001). Gastric bypass can be functionally totally reversed, though this is rarely required. For all bariatric procedures, pure reversal without conversion to another bariatric procedure is almost certainly followed by a return to morbid obesity (Buchwald, 2005; Bult, van Dalen, & Muller, 2008). A standard Roux gastric bypass with failed weight loss can be revised to a very long limb Roux-en-Y procedure (Buchwald, 2005; Mun et al., 2001). Meta-analysis research has found that bariatric procedures not only cause significant weight loss but also lead to improvement in many associated conditions such as diabetes, hypertension, and sleep apnea (Buchwald et al., 2004; Mun et al., 2001; Shingole et al., 2005).

Complications

Weight loss surgery patients are at risk for complications from the medical problems associated with obesity as well as from the surgery itself (Buchwald et al., 2004; Saltzman et al., 2005; Steinbrook, 2004). Individuals who are excluded from undergoing bariatric surgery include patients with unacceptable operative risk including those with unstable or severe coronary heart disease, severe pulmonary disease, and other conditions thought to seriously compromise anesthesia or wound healing (Fernandez et al., 2004; Nguyen, Rivers, & Wolfe, 2003; Saltzman et al., 2005). Males older than 50 years old with a BMI > 50 kg/m², and hypertension, obstructive sleep apnea, and/or type 2 diabetes are at high risk for undergoing bariatric surgery (Saltzman et al., 2005). Thus, patients undergoing bariatric surgery most often have to meet with several different health care professionals before being cleared to undergo bariatric surgery due to the risks and complications involved (Saltzman et al., 2005).

Other postoperative complications regarding bariatric surgery include vomiting, heartburn, and dumping syndrome (Bult et al., 2008). Vertical banded gastroplasty has a high incidence of persistent (greater than 10 years) postoperative vomiting and heartburn (Balsiger et al., 2000; Bult et al., 2008; Nightengale et al., 1991). Dumping syndrome occurs in about half of patients after gastric bypass surgery (Bult et al., 2008; Maggard et al., 2004). Typical complications after laparoscopic adjustable gastric band are erosion of the band into the gastric wall, prolapse of the band leading to gastric outlet obstruction, disconnection of the band from the reservoir, and esophageal dilation (Bult et al.; DeMaria, 2003; O'Brien & Dixon, 2003). Dixon and O'Brien (2003) researched the treatment of 1250 patients up until September of 2001 and found 10.7% of the patients experienced complications after laparoscopic adjustable gastric band (LAGB) procedures. Schneider and Mun (2005) found that early complications are uncommon among patients who have undergone LAGB surgeries, but late complications may be seen. They found that one to 13% of patients will require revisions of their band, prolapse or slipping of the band from its intended site may occur in 2-14.2% of patients, and erosion of the band into the gastric wall may occur in as many as 2.8% of patient (O'Brien et al., 2002 Schneider & Mun, 2005).

Weight Loss

On average surgical treatment of obesity results in 20-40 kg of weight loss and 10-15 kg/m² reduction in BMI (Buchwald et al., 2004; Bult, van Dalen, & Muller, 2008; Maggard et al., 2005). The weight loss is maintained for up to 10 years and has been accompanied by improvements in some comorbid conditions (Maggard et al., 2005).

Intensive lifestyle modification leads to modest weight loss in comparison with an average weight loss of 5.6 kg (12.3 pounds) (Bult et al., 2008; Knowler et al., 2002). Pharmacological treatment of obesity can generate an estimated weight loss of about five kg (Bult et al., 2008; Li et al., 2005; Pi-Sunyer et al., 2006). There is no evidence of mortality benefits from this level of modest weight loss (Snow et al., 2005). Recovery from comorbidities such as Type 2 diabetes is highly associated with bariatric surgery (Buchwald et al., 2004; Bult et al., 2008). Recovery from Type 2 Diabetes was established in 76.8% of patients who underwent bariatric surgery (Buchwald et al., 2005; Bult et al., 2008). At 24 months after surgery, the incidence of hypertension, diabetes, and lipid abnormalities have been shown to be markedly lower in patients who have undergone bariatric surgery (Sjostrom, Lissner, & Sjostrom, 1999; Snow et al., 2005).

Relapse

Past research has indicated that about a year and a half to two years after bariatric surgery, weight loss from surgery stabilizes, and a substantial proportion of individuals begin to regain lost weight (Hsu et al., 1998; Niego et al., 2007). Weight regain, if it occurs, typically begins 18 to 24 months after surgery (McMahon et al., 2006). McMahon et al. (2006) found that after Roux-en-Y gastric bypass (RYGB) surgery patients typically lose on average .5-1 pound daily for the first three months, .25-.5 pound daily from 3 to 9 months, and .25 pound daily thereafter for up to 12 months. They also discovered that by 7 to 10 years after bariatric surgery about two thirds of patients maintained a weight loss of 50% or more of their excess preoperative weight (McMahon et al., 2006; Pories et al., 1995). Evidence has demonstrated that continued maladaptive eating behaviors, such as

binge eating, might be contributors to reduced or reversed success of bariatric surgery, further contributing to long-term medical and psychological morbidity (Larsen et al., 2006; Niego et al., 2007). Hsu et al. (1996) found that 4 of 9 patients who binge ate prior to surgery continued to do so, whereas only one patient developed a new binge eating disorder following surgery. Bariatric patients must change their lifestyle to incorporate healthy eating and exercise in order to lose weight as well as to not endure severe or possibly even life threatening complications after surgery.

Longitudinal follow-up in bariatric surgical research in most studies is short-term and incomplete (Buchwald et al., 2004; Courcoulas & Flum, 2005). Therefore, it is difficult to determine the long term effects of bariatric surgery procedures on patients' social and emotional functioning. Patients who do not participate in ongoing follow-up care may be different from those who do participate and this may limit conclusions about efficacy and safety. Both weight regain and long-term operative complications also may occur differently over time (Courcoulas & Flum, 2005).

Mortality Rates

There are several factors that patients undergoing bariatric surgery take into consideration regarding what type of surgery they choose to have. The mortality rates between the different surgeries are often a factor in choosing the type of bariatric surgery a patient want to proceed with. The prospective mortality data are provided by the Swedish Obese Subjects (SOS) study. All of the subjects in the study agreed to participate in the study for 10 years. Of those subjects, 1471 that underwent bariatric surgery and 1444 who received conventional treatment also consented to participate in

follow-up examinations at 15 and 20 years. Subjects were recruited over a 13.4 year period from September 1, 1987 to January 31, 2001; the cutoff date for the analysis completed by Sjostrom et al. (2007) was November 1, 2005. The follow up period thus ranged from 4 years 9 months to 18 years 2 months (Sjostrom et al., 2007). The SOS study involved 4047 obese subjects. Of these subjects, 2010 underwent bariatric surgery (surgery group) and 2037 received conventional treatment (matched control group). There were 129 deaths (6.3%) in the control group and 101 deaths (5.0%) in the surgery group (Sjostrom et al., 2007). There were 53 deaths from cardiovascular causes in the control group and 43 in the surgery group (Sjostrom et al., 2007). The most common cardiovascular causes of death were myocardinal infarction, sudden death, and cerebrovascular damage (Sjostrom et al., 2007). Cancer was the most common cause of death from noncardiovascular causes. Within 90 days after surgery, 5 subjects (0.25%) in the surgery group and 2 subjects (0.10%) in the control group died (Sjostrom et al., 2007). During an average of 10.9 years follow-up subjects who underwent bariatric surgery had and overall mortality hazard ratio of 0.76 when compared to control subjects (Bult, van Dalen, & Muller, 2008; Sjostrom et al., 2007).

Long-term mortality data for gastric bypass surgery were very recently reported. Adams et al. (2007) conducted a large retrospective cohort study (9949 gastric bypass procedures versus 9628 severely obese controls), long-term mortality from any cause (mean follow-up of 7.1 years) decreased by 40% compared with that in the control group. The study examined the records of patients who had undergone gastric bypass surgery to determine their long-term risk of death, as compared with that of a population control

group in which weight was self-reported. The estimated number of lives saved after a mean follow up of 7.1 years was 136 per 10,000 gastric bypass surgeries (Adams et al., 2007). Buchwald et al. (2004) conducted a meta-analysis study that included 16944 patients. They found operative mortality at 30 or less days was 0.1% for purely restrictive procedures (2297 patients undergoing banding and 749 patients undergoing gastroplasty), 0.5% in 5644 patients undergoing gastric bypass procedures, and 1.1% in 3030 patients undergoing biliopancreatic diversion or duodenal switch procedures.

Bult et al. (2008) used the SOS study, the Buchwald et al. (2004) study as several other meta-analysis studies to compile estimates of mortality rates among bariatric patients. Bult et al. (2008) reported the following results of their data collection concluding an estimate of bariatric mortality rates to date: The early mortality rate of bariatric surgery (death less than 30 days after surgery) is 0.1-2%, depending on the procedure and patient characteristics (Bult et al., 2008; Dixon et al., 2005). Taken together, the mortality after 30 days varies in diverse studies between 0.1 and 4.6% and mainly occurs following a malabsorptive procedure (Bult et al., 2008). Restrictive procedures appear to have a much lower mortality rate (Bult et al., 2008). The 30-day mortality rate for restrictive procedures has been reported in several studies as zero (Bult et al., 2008; Nguyen et al., 2006; Nilsell et al., 2001; O'Brien et al., 2006). Important determinants of mortality are: age, sex, cardiorespiratory fitness, and surgeon experience (Bult et al., 2008). For patients over 65 years of age, the mortality rate at 30 days is 4.8% and 11.1% at 1 year; for patients under age 65, the mortality rate is 1.7 and 3.8% respectively (Bult et al., 2008; Flum et al., 2005). Bult et al. (2008) reported that the

studies taken together suggested the mortality after 30 days varies in diverse studies between 0.1 and 4.6% and mainly occurs following a malabsorptive procedure. Overall, the literature supports the contention that restrictive procedures appear to have a much lower mortality rate (Bult et al., 2008).

Past Research

Research in the area of bariatric surgery first began in the 1970s. Researchers involved in the area of medicine were interested in investigating the outcomes of different weight loss procedures. Researchers aimed to look at the medical outcomes of surgery and compare and contrast different bariatric procedures (Alden, 1977; Griffen, Young, & Stevenson, 1977; Quaade, 1979). In the 1970s and the 1980s the primary weight loss surgery that was performed was vertical banded gastroplasty (VBG) also known as stomach stapling. VBG is a restrictive operation for weight control where both a band and staples are used to create a small stomach pouch. It is considered a restrictive procedure. Gastric partitioning was also one of the primary surgeries performed in the 1980s. Gastric partitioning consists of stapling across the stomach below the gastroesophageal junction, leaving a small food reservoir (Pace et al., 1979). It is different from the VBG procedure in that it did not include a band.

Most of the bariatric literature from the 1980s consists of research that investigated the outcomes of undergoing gastroplasty. Several studies compared and contrasted gastroplasty versus a low calorie diet (Anderson et al., 1982; Anderson et al., 1984; Anderson et al., 1987; Anderson et al., 1988). The researchers found that bariatric surgery was a more effective in the long term treatment of obesity compared to a low

calorie diet (Anderson et al., 1982; Anderson et al., 1984; Anderson et al., 1987; Anderson et al., 1988). Also in the 1980s there were several studies that compared and contrasted gastric bypass surgery versus VBG (Argen & Naslund, 1989; Naslund et al.,1986; Naslund, 1987; Sugarman, Starkey, & Birkenhauer, 1987; Van, 1984). Researchers found that the gastric bypass procedure proved to be far more effective in producing weight loss than the gastric partition.

Bariatric research in the 1990s primarily focused on the health improvements of bariatric patients after undergoing surgery. Many of the studies at that time investigated how weight loss influences comorbidities such as hypertension, lipid disturbances, diabetes, asthma, and heart disease (Dixon, Chapman, & O'Brien, 1999; Karson et al., 1997; Karson, et al., 1999; Macgregor & Greenberg, 1993; Sjostrom et al., 1999). In the 1990s surgical procedures began to change in the area of bariatric surgery. The use of the adjustable gastric band was offered as a new bariatric procedure as well as gastric bypass surgeries and gastric banding surgeries being performed laparoscopically rather than as an open procedure. With these new procedures, many studies looked at the outcomes of laparoscopic procedures and adjustable banding (Belachew et al., 1998; Dargent, 1999; Doherty, Maher, & Heitshusen, 1998; Fielding, Rhodes, & Nathanson, 1999; Forestieri et al., 1998; Forsell et al., 1999; Horchner & Tuinebreijer, 1999).

One of the most important studies regarding bariatric patients was published in 1998 by Karlsson et al. This study has been termed the Swedish Obese Subjects (SOS) study. The SOS study is an ongoing nationwide multi-center project that comprises a registry study and an intervention trial. The study began in 1987 and is ongoing at this

time. The subjects are recruited from the registry to participate in an intervention trial designed to test of the negative effects of severe obesity on mortality, morbidity, and quality of life are reduced during a long-term weight reduction (Karlsson, Sjostrom, & Sullivan, 1998). Many published articles have been written regarding the SOS study (Karlsson et al., 1998; Karlsson, Sjostrom, & Sullivan, 1998; Sjostrom et al., 1999; Sjostrom, Peltonen, & Sjostrom, 2001; Sjostrom et al., 2007). This study is referenced several times throughout this dissertation.

The bulk of literature written about bariatric patients has been published within the past ten years due to the advancements in bariatric procedures and the significantly growing number of individuals who are opting to undergo bariatric surgery each year. Accordingly, bariatric surgery has achieved acceptance by the medical community during the past 10 years. In the year 2007, more than 200,000 bariatric surgeries were performed (American Society for Bariatric Surgery, 2007). Most of the literature that has been published within the past 10 years has focused on the question of whether or not bariatric surgery is effective in the long term goal of weight loss, complications after surgery, comparing and contrasting different surgical procedures, patient's quality of life after surgery, and the health benefits of undergoing weight loss surgery. These studies are referenced throughout Chapter 2 of this dissertation.

Most research to date in the area of bariatric surgery has been quantitative using preexisting validated measures taken from other health problems (Bocchieri, Meana, & Fisher, 2002; Ogden et al., 2006). This past research provides useful insights into changes in predefined psychosocial domains and may assist in identifying statistical predicators of

success. However, it cannot provide detailed insights into the bariatric patient's own experience of obesity surgery as defined by the individuals themselves. There have been few studies to date (Bocchieri et al., 2002; Glinski, Wetzler & Goodman, 2001; Ogden et al., 2006) that have used qualitative methods in the area of bariatric surgery and have explored how patients describe the impact of surgery on their lives.

Glinski et al. (2001) used quantitative and qualitative methods in their study to explore the importance of psychological evaluation of gastric bypass surgery candidates and post-surgical psychological support services. The researchers had 115 gastric bypass surgery candidates complete a clinical interview, a self-report measure, and the Minnesota Multiphasic, Personality Inventory-Second Edition (MMPI-2). The researchers found that a high prevalence of psychopathology and personality disturbance was found in this population (Glinski et al., 2001). This study like the Bocchieri et al. (2002) study only used participants that had undergone gastric bypass surgery and not other bariatric surgeries. This study was not solely qualitative in nature and therefore, it did not give us further information into the personalized accounts patients undergoing bariatric surgery. The purpose of this study was to look at the prevalence of psychopathology and personality disturbance (depressive disorders, anxiety disorders, binge eating, borderline personality disorder) among gastric bypass surgery patients. This study did not contribute to the literature in the area of personalized accounts of undergoing bariatric surgery and the psychosocial aspects that affect patients after having surgery. Glinski et al. (2001) suggested at the outcome of their study that more studies

are needed to further clarify which psychological factors play a role in the different psychosocial outcome variables.

Bocchieri et al. (2002) conducted a qualitative study where they used unstructured and semi-structured interviews and in-depth focus groups with 31 participants. The participants were asked in an open-ended fashion about the ways, if any, in which gastric bypass surgery had transformed their lives. Grounded theory methodology was utilized in order to identify emergent themes and their interrelations, and build a meaningful, comprehensive theory of life after gastric bypass (Bocchieri et al., 2002). In particular, the grounded theory proposed that the extent to which patients successfully negotiate tension-generating changes may be a major determinant in the long term outcome of gastric bypass, both weight loss and psychosocial adjustment (Bocchieri et al., 2002). Patients reported feelings of transformation after bariatric surgery and this was identified as the core process of the theory (Bocchieri et al., 2002). These feelings of transformation included increased activities/abilities, reduction of pain and medical conditions, the ability to envision the future, and improved parenting ability and occupational status (Bocchieri et al.). The researchers approach to the study was to find out in greater detail the psychosocial aspects of patients that had undergone gastric bypass surgery.

Bocchieri et al. (2002) pointed out that there is limited qualitative research in the area of bariatric surgery and it remains unclear the extent of the psychosocial impact of the surgery and the ways in which these psychosocial outcomes are related to the ability to maintain weight loss (Bocchieri et al., 2002). The researchers also suggested that the vast majority of studies regarding bariatric patients have utilized quantitative measures in

an attempt to assess what researchers assumed to be the constructs associated with psychosocial outcomes of surgery (Bocchieri et al., 2002). The sample that was used in this study was limited. It included only patients who had undergone gastric bypass surgery and not other forms of bariatric surgery such as banding surgeries. The majority of the participants were female and European-American. Only two out of the 31 participants (Latino) were of a cultural minority. Results from this study suggest that there continues to be a gap in the current research regarding the in-depth personalized accounts of bariatric patients. This study did not include patients who underwent other bariatric procedures nor did it include a diverse participant sample. The researchers pointed out that there continues to be a need to identify potential challenges in adjusting to life changes following surgery and future studies may focus more on these changes in order to assist in developing intervention strategies to improve the likelihood of successful outcomes following bariatric surgery.

Ogden et al. (2006) used qualitative methods to interview 15 patients who had undergone bariatric surgery in the past 4 years. The researchers were interested in the participants' reasons for having surgery and their subsequent experiences. Fourteen of the patients studied had shown significant weight loss, but two patients had regained weight recently due to problems with banding (Ogden et al., 2006). The interviews lasted between 40 and 90 minutes. The interviews were analyzed using Interpretative Phenomenological Analysis (IPA). The researchers found a common theme among the patients in that choice is seen as central if patients are to lose weight. The absence of choice undermines self-efficacy and behavioral control and without choice a person is

deemed powerless and unempowered (Ogden et al., 2006). The theme of choice was related to a central theme of control. Choice is seen as central if patients are to take part in shared decision making and if doctors are to offer a patient center approach. The results from the study suggested that the relationship between choice and control may not be straightforward; by taking away choice obesity surgery may actually improve control (Ogden et al., 2006). Therefore, too much choice may at times be disempowering, whereas the removal of choice may help a person to reestablish their sense of self-control.

Medical research on obesity surgery is rich and elaborate indicating that surgery is generally effective in producing dramatic weight loss and reduction of obesity related comorbidities (Bocchieri, Meana, & Fisher, 2002). On the other hand, what still remains unclear is the extent to which the psychosocial impact of surgery and the ways in which these psychosocial outcomes are related to weight loss and emotional wellbeing. The vast majority of studies have utilized quantitative measures in an attempt to assess what researchers assumed to be the constructs associated with psychosocial outcome of surgery (Bocchieri et al., 2002; Glinski, Wetzler, & Goodman, 2001; Sarwer, Wadden, & Fabricatore, 2005). Quantitative assessment measures do not typically allow for heterogeneity of patient responses and thus increase the likelihood that the patients' experience are only partially conveyed and understood. As a result, there is a need for more qualitative research to better understand the psychosocial variables such as self-esteem, social support, eating behavior, psychopathology, weight lost, and quality of life related to undergoing bariatric surgery. There also needs to be qualitative research that

investigates how bariatric patients' personal constructs influence these psychosocial variables and the relation of personal constructs to post-surgical recovery. Qualitative research methods can assist in identifying how bariatric surgery impacts the lives of patients by using interviews to ask questions to help gather information that is missing from present research. These interviews can allow the researcher to gather information that will examine the world views or personal constructs of bariatric patients that is missing from the existing literature. Previous researchers have used standardized questionnaires that do not allow participant to extrapolate on their experience of undergoing bariatric surgery and how bariatric patients construct their experiences or see themselves in the world post-surgery. Questionnaires ask questions where the participant has to check off one specific answer that is listed. Qualitative research allows for the participants to tell about their experience from their prospective and provides greater depth and breadth of information regarding the worldview and constructs of bariatric patients post-surgery that is missing from the current literature.

Significance of the Study

This study will add to the existing body of literature that describes the psychosocial impact of undergoing bariatric surgery. In a time when obesity rates are growing at alarming rates each year in the United States, this research will fill a gap in the literature by providing information about the psychosocial implications of undergoing bariatric surgery and how bariatric patients construct their experiences post-surgery. Although there is information in the literature regarding the health benefits of undergoing bariatric surgery, this study will add to the existing literature focusing on the

psychosocial outcomes of undergoing bariatric surgery and shed light on a growing population that has been rarely studied using qualitative methods to gain a true insight of how this population views themselves and their environment after surgery. The results of this study may also provide insight towards providing further education to patients who are thinking about undergoing bariatric surgery and what they can expect in relation to psychosocial changes after surgery. Patients who have already undergone surgery can benefit from hearing other patient's stories in feeling connected to others who have undergone the same experience.

There is limited research demonstrating how and what psychosocial variables influence bariatric patients' perceptions of themselves. The majority of research on weight related personal identity has addressed eating behaviors, weight loss, and weight maintenance in obese and non- clinical populations following weight loss treatment, and have not related to these constructs in the post-bariatric surgery population. The current literature does not expound on the question of if different psychosocial variables help or limit the personal identities of bariatric patients after surgery. In addition, the current literature is limited in describing how personal identity and psychosocial variables helps or hinders the outcome of surgery.

Therefore, some questions left unanswered in the literature are:

1. In what way are the personal constructs of post-bariatric patients influenced by psychosocial variables?
2. Do the personal constructs of bariatric patients affect the outcome of bariatric surgery?

3. How do bariatric patients' world views and relationships change based upon their post-surgical weight reduction?

4. In what way do bariatric patients constructs of self aide in the weight loss process?

5. In what way do bariatric patients' personal constructs hinder the weight loss process?

6. Do the personal constructs of bariatric patients affect their social relationships and emotional functioning after surgery?

7. Do the personal constructs of bariatric patients affect their eating behavior after surgery?

CHAPTER 3:

RESEARCH METHOD

Research Design

The tradition of phenomenology was chosen to examine the experiences of individuals who have undergone bariatric surgery. Phenomenology is a qualitative research method originally developed by the philosopher Edmund Husserl (Wertz, 2005) who formulated scientific methods that are uniquely fashioned to assist psychological researchers in the investigation of human experience and behavior. Husserl's phenomenology uses a familiar methodological principle that scientific knowledge begins with a fresh and unbiased description of its subject matter.

With this principle in mind, conducting a qualitative study using a phenomenological approach was appropriate for this study in helping to understand the psychosocial world of bariatric patients post-surgery. The patients themselves had undergone this surgery and were able to provide the most insight into the changes they have experienced after surgery.. No one other than those experiencing this phenomenon of undergoing bariatric surgery can truly describe this experience and the changes the patients go through other than the patients themselves.

Qualitative Versus Quantitative Methods

Quantitative research methods cannot provide detailed insights into the patient's own experience of bariatric surgery as defined by the individual themselves. In addition, quantitative research by nature of the statistical analysis used, aims to minimize rather

than explore individual differences (Ogden, Clementi, & Aylwin, 2006). The importance of exploring individual differences was necessary in order to have a true understanding of how each individual experienced weight loss surgery as well as to identify key themes that linked each individual to the experience itself. Phenomenological research methods allow researchers to explore how each individual participant describes the impact of surgery on their lives.

The research tradition of phenomenology was the most appropriate approach for this study in order to explore the emotional and social lives of individuals who have undergone bariatric surgery and collect data regarding the shared experience and unique individual experiences. For almost 30 years, phenomenological psychology has existed as an applicable approach to conducting research in the social and behavioral sciences (Glinski, Wetzler, & Goodman, 2001; Hein & Austin, 2001; Ogden, Clementi, & Aylwin, 2006). It has well-developed methods for the analysis of experience, action, textual material, and other descriptive data (Hein & Austin, 2001). Phenomenological methods are adapted to the characteristics of the particular phenomenon being investigated (Hein & Austin, 2001).

Several individuals who have the shared experience of undergoing bariatric surgery were interviewed to assist in exploring different psychosocial variables that have changed or remained the same since undergoing surgery. Such variables included social support, self-esteem, self-confidence, self-efficacy, quality of life, expectations of life changes before surgery, and expectations of life changes after surgery, and mood. Only a few studies have used qualitative research methods to investigate the experiences of

bariatric patients (Bocchieri, Meana, & Fisher, 2002; Glinski, Wetzler, & Goodman, 2001. Ogden et al., 2006).

Empirical and Hermeneutic Phenomenology

Phenomenological methods can be classified into either of two broad categories of phenomenological research: empirical phenomenology and hermeneutic phenomenology. Each type differs in their philosophical assumptions. Adrian van Kaam is considered to be the founder of empirical phenomenology and described it as an attempt to return to the immediate meaning and structure of behavior as it actually presents itself (Hein & Austin, 2001).

Empirical Phenomenology

One characteristic of empirical phenomenological research is its emphasis on the structure of the phenomenon of interest or the commonality that is present in the many diverse appearances of a phenomenon. A second characteristic is that it tends to rely on the actual words that participants use to communicate their experiences. Empirical phenomenology views itself as empirical in that it relies on factual data collected from participants. However, like hermeneutic phenomenological researchers, many empirical phenomenological researchers recognize that hermeneutic activity (interpretation) is an intrinsic part of the research process.

Hermeneutic Phenomenology

Hermeneutic phenomenology takes an approach to study human phenomena in a way that the researcher essentially is treating a human experience as if it has a semantic

and textual structure (Hein & Austin, 2001; Lane, 2005). Hermeneutic phenomenological research results are themselves texts, descriptions offered as insights, not as replicable results of structural analyses (Hein & Austin, 2001). The aim of the researcher is to create a rich, deep account of a particular phenomenon, an uncovering rather than an accurate analysis of participants' descriptions (Hein & Austin, 2001). It involves studying phenomena with attention to concrete experiential details while avoiding, as much as possible, prior theoretical assumptions (Hein & Austin, 2001). Hermeneutic phenomenological research has no step-by-step method or analytic requirements. The phenomenological hermeneutic process is an interpretative method, in which the researcher attempts to understand the phenomenon being described (Lane, 2005). One criticism of hermeneutic phenomenological research methods is that the researcher's past experiences and theoretical conceptions can be viewed as a problem for interpretation by introducing possible bias (LeVasseur, 2003).

Constructivist theories describe characteristics of phenomena by describing discrete characteristics found and sort out meaning and observations. Therefore, a constructivist theoretical framework applies to the use of phenomenological research methods in that both approaches are used to gain insight into a specific phenomenon. The basic idea underlying George Kelly's Personal Construct Theory is that each individual builds for himself a system of constructs that he uses to anticipate and control events, and to make sense of his phenomenological world (Katz, 1984). Accordingly, this theory is grounded in the principles of phenomenological methods and was used as the framework to guide the study in understanding the world views of bariatric patients post-surgery.

Context of the Study

The participants for this study were recruited from the community of Hampton Roads, VA and Salisbury, MD. Recruitment flyers that discussed the study were posted at the Hampton Roads Weight Loss Surgery Center and were viewed by the volunteers. The Weight Loss Surgery Center, is a private practice weight loss surgery center operated by two physicians and was the primary recruitment agency used in the study. The two doctors at this practice, conduct the majority of bariatric surgeries in the Hampton Roads Community. These physicians conduct laparoscopic banding, laparoscopic gastric bypass, and Roux-en-y gastric bypass surgeries. The doctors' patients consist of a diverse population of men and women from different socioeconomic and cultural backgrounds that allowed for a diverse sample for this study. Other participants were recruited by word of mouth from a small private practice bariatric surgery center located in Salisbury, Maryland.

Participants/Sample

The participant sample included males and females over the age of 18 years old that have undergone bariatric surgery. Semi-structured interviews were used with 15 participants. Studies that have used phenomenological research vary in the number of participants. Adrian Van Kaam used a phenomenological research approach to study high school students and had 365 high school seniors in his study (Hein & Austin). Other researchers who have used phenomenological methods have used smaller samples such as Giorgi (1975) who used six participants in his sample. Past research suggests using a sample of 15 or more participants is sufficient to generate the data necessary to help

answer the research questions in this proposed study (Ogden, Clementi, & Aylwin, 2006). In one study using qualitative methods and Interpretive Phenomenological Analysis regarding bariatric patients, the researchers found that after 15 interviews saturation had been reached as no new themes were emerging and similar stories were being told, therefore, no new interviews were arranged (Ogden et al., 2006).

The participants were from different socioeconomic backgrounds and there was diversity in regards to ethnicity due to the population in Hampton Roads that is mostly comprised of African American and Caucasians. The primary inclusion characteristics were that participants were over the age of 18 years old and that they have undergone bariatric surgery within the past 10 years. The exclusion criterion was that no one under the age of 18 years old could participate in the study. Also, no participant that is currently in therapy with the principal researcher or has ever been a client of the principal researcher were able to participate in the study as it could be perceived as a dual role, an obvious conflict of interest.

Role of the Researcher

There was one primary researcher for this study who collected data. Community surgeons from the Hampton Roads Weight Loss Surgery Center assisted in the recruitment of participants. However, they did not collect data and they did not have access to raw data. Some members of the community recognized the principal researcher as a therapist. For that reason, the role of the researcher was clearly communicated and clarified to the participants. The participants were informed that they will not be permitted to schedule psychotherapy sessions with the principal researcher during the

duration of the study as it would be a conflict of interest. The members of the researcher's dissertation committee from Walden University assisted in the final analyses as their roles permitted.

Ethical Procedures

A letter of cooperation was sent to the Hampton Roads Weight Loss Surgery Center to Dr. Thomas Clark and Dr. Anthony Terracina to gain their permission to recruit participants from their facility. Flyers were handed out and posted at the Weight Loss Surgery Center that described the nature of the study. Interested participants were then able to contact the principal investigator by email or phone to inquire about participation in the study or ask questions about the study. The consent form allowed participants to have an understanding that they were not compensated for their time and they were informed of the nature of the study. The consent form communicated to the participant that their information will be kept confidential.

The consent form also informed participants that they may withdrawal from the study at any time and that participants were not asked to join in activities or were asked questions that would cause physical or emotional harm. The participants were informed that pseudonyms will be used to protect their identity and that all information was be kept confidential. No one had access to the raw data other than the principal researcher and members of the dissertation committee. The participants were informed that their identities were not given to the committee members. The participants were also informed that the principal researcher is a student at Walden University and that participants were provided with the dissertation chair member's name and contact information if there were

concerns or further questions. The participants were made aware that they are able to have knowledge of the research study results after a post-intervention debriefing session.

Selection of Participants

Study participants were sought primarily by placing flyers at the Hampton Roads Weight Loss Surgery Center. The flyers conveyed to participants the nature of the study and how to contact the principal researcher in order to participate in the study. The flyer informed the participants that they must have undergone bariatric surgery in the past ten years. Participants were selected by selecting 15 participants who fully met the study's inclusion criteria (being over the age of 18 and have undergone bariatric surgery in the past 10 years). The informed consent was secured by setting up meetings to go over the consent form with the participants and the participants then signed the consent form. The guidelines and strategies that were used for excluding potential participants were if they were under the age of 18 years old or if they had not undergone bariatric surgery or if they were not willing to give consent.

Data Collection Techniques

Semistructured interviews were conducted in order to collect data from the participants. Often the phenomenological interview begins with a social conversation or brief activity aimed at creating a relaxed and trusting atmosphere (Moustakas, 1994). Building the proper rapport with the participants was the first step of data collection as it was essential in the interview process. A general interview guide is often suggested as helpful in conducing phenomenological research (Moustakas, 1994). For a phenomenological study, the process of collecting information involves primarily in-

depth interviews with participants who have shared the same experience (Creswell, 2007). The researcher asked the following questions of the participants:

1. Tell me about your experience of undergoing bariatric surgery.
2. How have your thoughts about yourself changed since surgery?
3. How would you describe your emotional wellbeing since undergoing bariatric surgery? How does your emotional well-being affect how you view the world?
4. How do you view yourself in social situations since undergoing surgery?
5. How does your support system influence your thoughts about yourself since undergoing surgery?
6. What do you see as the biggest changes in your worldview since undergoing bariatric surgery?
7. What perceptions of yourself have changed or stayed the same since undergoing surgery?
8. In what ways do you feel your identity has changed since undergoing surgery?
9. Did you anticipate changes in how you would view yourself after undergoing surgery? If so, what did you anticipate?

The interviews helped the researcher to collect the necessary data and to gain information regarding the shared experiences of the participants. Information that was collected from the interviews was first looked at for common themes that helped generate theories regarding the psychosocial experiences of those who had undergone bariatric surgery and how their personal schemas were constructed as well as investigate other variables that were disclosed. In addition, the interviews were audio-taped with the consent of the participants and the principal investigator took notes during the interviews.

Analysis

The phenomenological research method that was used in this study to analyze the data was Interpretative Phenomenological Analysis (IPA). IPA is intellectually connected to hermeneutics and theories of interpretation (Smith, 2003). The aim of IPA is to explore in detail how participants are making sense of their personal and social world, and the main focus for an IPA study is the meanings particular experiences, events, and states hold for participants (Smith, 2003). The approach is phenomenological in that it explores the personal experiences of the participant's world and is concerned with an individual's personal perception or account of an event, as opposed to an attempt to produce an objective statement of the object or event itself (Smith, 2003). Thus, a two-stage interpretation process, or double hermeneutic, is involved (Smith, 2003). The participants are trying to make sense of their world; while the researcher is trying to make sense of the participants.

Data Analysis Techniques

The initial step in the data analysis of this project was to transcribe the interviews. The second step was to read the interviews and field notes. Listening to interview tapes prior to transcription was also helpful and was also an opportunity for analysis, as the actual process of transcribing interviews or of rewriting and reorganizing field notes assisted in analysis (Maxwell, 2005). There is an order to the steps to be followed in phenomenological research analysis (Camic, Rhodes, & Yardley, 2003). The overall process of phenomenological research begins with first obtaining descriptions of

experiences from the participants, then the researcher enters into a scientific phenomenological reduction while simultaneously adopting a psychological perspective, then the researcher analyzes the raw data to come up with the essential structure of the experience, which is then carefully described at a level other than that of the original description (Camic et al., 2003).

Moustakas (1994) described different methods of analyzing data for phenomenological research studies. First he suggested a method that is a modification of the methods used by Van Kaam. Moustakas suggested that while using the complete transcriptions of each research participant the researcher should take the following steps in analysis:

1. List every expression relevant to the experience
2. Test each expression for two requirements. (A) Does it contain a moment of the experience that is a necessary and sufficient constituent for understanding it? and (B) Is it possible to abstract and label it?
3. Cluster the invariant constituents of the experience that are related into a thematic label. The clustered and labeled constituents are the core themes of the experience.
4. Final identification of the invariant constituents and themes by application: Validation.
5. Using the relevant, validated invariant constituents and themes, construct for each co-researcher and individual textural description of the experience. Include verbatim examples from the transcribed interview.
6. Construct for each co-researcher an individual structural description of the

experience based on the individual textural description and imaginative variation.

7. Construct for each research participant a textural-structural description of the meanings and essences of the experience, incorporating the invariant constituents and themes.

8. From the individual textural-structural descriptions, develop a composite description of the meanings and essences of the experience, representing the group as a whole (Moustakas, p. 121).

The main categorizing strategy in qualitative research is coding (Maxwell, 2005), which was necessary after transcribing and reading the raw data. Each of the participant's transcribed interviews was coded individually to look for patterns across all of the participants. The coding process used deductive coding which involved preexisting theoretically derived codes such as anxiety and depression. Inductive coding was involved in identifying codes that were derived from the data to develop new codes. Descriptive codes were used to attribute a class of phenomena to a segment of text such as pre-existing mental health disorders. Overall, the data was analyzed by using an Interpretative Phenomenological Analysis (IPA) approach. IPA was used to interpret the interview transcripts. IPA allowed for a detailed exploration of the interpretations of social and psychological experiences or realities, and perceptions of the participants. The method is rooted in phenomenological inquiry and symbolic interactionism in understanding experiences and perceptions, and highlights the role of the researcher in the interpretative process in understanding the participant's world using and idiographic approach (Purewal & Van Den Akker, 2007). The idiographic approach involves in-depth analysis of participant's attempts to describe their cognitive and affective actions and

reactions to bariatric surgery (Purewal & Van Den Akker, 2007). This dualistic approach was used to assist in understanding different individual's thoughts, changes in and reflections on responses, and ease of interpreting the meaning of undergoing bariatric surgery. The individual themes that arose were then analyzed to determine if there were common themes among all of or the majority of the participants.

The interviews were transcribed and coded and initial thoughts and comments about themes and ideas that emerged from the transcripts were sorted to identify important themes through key words found within the transcripts. The key words were identified prior to analysis. For example, key words included secure, normal, confident, anxiety, and depression. A computer program was used that assisted in organizing the qualitative data into themes that assisted with the analysis and organization of data. This process of coding and gathering themes for all transcripts was repeated so that all themes and keywords were coded individually. All emerging themes were compiled into a master table regardless of whether other transcripts revealed similar themes in order to ensure that no data was lost. The master table was reviewed to identify the major themes that applied to the majority of the participants. There was a presentation on the data and preliminary interpretations to stakeholders and a small group of participants as a method of member checking to determine if any initial interpretation of the data properly reflected the views and experiences of the participants.

Verification of Trustworthiness/Authenticity

Peer debriefing was used after the participant interviews were completed. This is where committee members engaged in analytic discussions about the data interpretation. There was prolonged observation as there was meetings with research participants over

several months to ensure an exhaustive understanding and identification of the participants that insured the internal validity of the study. It was important to use thick description as a verification method in order to describe the procedures that were used, the context of the phenomena, and to describe the participants. In using thick description the researcher wrote a detailed description of the participants, the context and procedures of the study and the purpose of the study were written in order to permit others to make decisions about transferability of the findings. This insured the external validity of the study. An audit trail was kept which included all of the raw data including written interviews, audio tapes, and transcription documentation of the data reduction process, analysis and synthesis of the data. There were notes of the methods used to analyze the data as well as documents where the data was shown as coded. Records were kept of every process used in gathering, coding, analyzing, and interpreting the data to ensure that others would be able to replicate this research study. This will also helped insure the reliability and objectivity of this study. Finally, medical staff that work with bariatric patients such as nurses, bariatric support group leaders, bariatric surgery educators, nutritionists and personal trainers were interviewed as a method of triangulation to insure credibility and internal validity of the study. Questions that were asked of the bariatric patient staff included the following: (a) What is your experience in working with bariatric patients? (b) How do you think bariatric respond to surgery? (c) What have you seen as the most pressing problem bariatric patients face after surgery? All of the aforementioned methods helped to ensure the internal validity and credibility of this study.

Data Interpretation

The major themes that have developed from this study are discussed from the perspectives of the participants. The principal researcher recognized biases and the need to interpret the data not from the researcher's worldview, but from the worldview of the participant that gave the information. A research journal was kept in order to pursue hunches, definitions, items, and concepts in interpreting the data. The research journal was another important key in helping to ensure the participant's perspectives were reflected as there needed to be documentation to keep note of these perspectives. These perspectives are discussed as part of the interpretation process.

Coding is an essential aspect of qualitative analysis because coding data and drawing out major themes helps to interpret the data in an informative manner. LeCompte and Schensul (1999) point out that it is important to give meaning to the data collected and figure out what the data is saying about the people who have been studied. This includes attaching meaning and significance to the themes that are identified. The process of member checking will be essential in this regard to make sure there is proper accounting for the actual perspectives of the participants. LeCompte and Schensul (1999) also suggest writing down impressions and notes as they occur so that they are not distorted by memory. This was an essential method in insuring the validity and reliability of interpretations of the data in this study.

The data was coded as soon as it was collected initially by picking out major themes from the participant's interviews. Initial coding consisted of circling certain words that were frequently mentioned among the participants and picked out certain feelings that were discussed. This was important to the phenomenological nature of this

study. It was also helpful to interpret the overall phenomena under study and to describe in detail the essence of what the participants related in regards to undergoing bariatric surgery. Therefore, coding themes and words from the individual interviews and putting all of the data together was an essential part to the interpretation of the data.

Creswell (2007) suggested that a computer program provides an organized storage file system so that information can be quickly located and the material is stored in one place. NU*DIST is a program designed to facilitate qualitative data analysis. NU*DIST helps to categorize data and examines recurring themes in participant's discourses of their thoughts and perceptions. NVivo8 is the newest qualitative software program from the makers of NU*DIST. The researcher used the NVivo8 program to assist in analyzing, shaping, and managing the data generated from this research project. The NVivo8 program was chosen due to the nature of the data and how the software system can manage the data. The NVivo8 software system assisted in searching for meaning in text and audio files It assisted in making sense of the data collected by providing a sophisticated workspace that allowed the researcher to work through material, discovering patterns, identifying themes, gleaning insight and ultimately, delivering informed findings. The data was cross-checked with committee members to ensure the quality and reliability of data interpretations.

Past research was examined to help guide the principal researcher in data interpretations. This helped the principal researcher to answer questions that have not been answered by past research and to serve as a guide in answering current research questions. Past research also leads to the development of specific theories regarding obesity and how obesity affects individuals psychologically. Theories regarding obesity,

mental disorders, and cognitive-behavioral theories were used to assist in interpreting research findings. Interpretations based on theories helped to answer research questions and answered specific hypotheses in regards to interpreting the data. This research helped to extend our current knowledge of the mental health of bariatric patients by gathering new perspectives and asking questions during the interview process that have not been discussed in past research.

Dissemination of the Findings

The audiences for the study's findings were health professionals and other interested parties who work with obese patients (bariatric specialists), primary care physicians, mental health professionals, researchers, bariatric patients, lay community members, and others who were interested in the psychological and social aspects of bariatric patients. It was important to keep all of these audiences in mind when writing up the findings. Since the research may be read by the general public, it was important to disseminate the findings in a manner that did not use a lot of jargon. It was important to define any major health or psychological constructs that could be confusing to the general public. The findings will also very likely be read by medical professionals and therefore it was important to maintain a professional tone and to publish the findings in a medical journal or forum that was easily accessible by medical professionals. Creswell (2007) suggested that when writing up qualitative research it is useful to use a writing style that is personal, familiar, highly readable, and for a broad audience. This approach was used when preparing findings and writing up results.

Creswell (2007) also discussed how to use quotes when writing up narratives and

findings within qualitative research. Quotes were important as several participants were interviewed. It was important to properly represent the participants as well as to protect their privacy in the way quotes and findings were presented. In other phenomenological studies, researchers have chosen to use paragraph-long quotes to discuss different themes. This approach was useful when writing up the current findings.

Since this study was one based on the phenomenology of undergoing bariatric surgery it was important to examine the literature on how this research has been conducted before. Moustakas (1994) described a structured phenomenological approach to analyzing data and writing up the findings in which he suggests using six chapters to structure the data and findings. The first chapter would include the introduction and statement of topic and outline. The second chapter would review the relevant literature. The third chapter would report a conceptual framework of the model. The fourth chapter would discuss methodology. The fifth chapter would present the data and the sixth chapter would report the summary, implications, and outcomes. This analytical structure was helpful in thinking about how to present the findings from this study as it is close to Walden's template for dissertation writing. Creswell (2007) suggested that the writing structures are highly related to the data analysis procedures. Our writing is an interpretation by us of events, people, and activities, and it is only our interpretation. It was important to recognize that the audience reading the research will all have their own interpretations.

CHAPTER 4:
RESULTS

Introduction

Extreme obesity is defined as a body mass index (BMI) greater than 40kg/m². The prevalence of extreme obesity has increased significantly over the last decade (Malone & Alger-Mayer, 2004).With the increased rates of extreme obesity, individuals are looking for effective treatments that will put an end to their struggle with obesity. Therefore, there has been a rise in bariatric surgeries being performed each year (American Society of Bariatric Surgery, 2007). In 2007 more than 200,000 bariatric surgeries were performed (American Society for Bariatric Surgery). Extremely obese individuals suffer stigmatization, prejudice and discrimination as a result of their appearance and therefore also experience psychological consequences (Dixon, Dixon, & O'Brien, 2002). Past research has documented a high prevalence of psychiatric comorbidities in extremely obese patients, including eating disorders, especially binge eating, and affective disorders, such as depression and anxiety (Black, Goldstein, & Mason, 1992, Greenberg et al., 2005; Sarwer et al., 2004). After experiencing dramatic weight loss, bariatric patients are faced with psychological, social, and physical changes creating change in their perceptions of themselves. After surgery, personal constructs of bariatric patients, therefore, would significantly change and influence their social and emotional functioning. Thus, the purpose of the study was to gain meaningful insight into the personal constructs of bariatric patients after they undergo bariatric surgery. This chapter details the recruitment process of participants; the profile of each participant; how the data was collected, recorded, stored, and analyzed; the identification of themes; and the methods of verification and trustworthiness that were used.

Recruitment

The planned recruitment process for this study was to recruit all participants from the Weight Loss Surgery Center located in Newport News, VA. The two surgeons who facilitate the Weight Loss Surgery Center agreed to allow the researcher to recruit participants from their surgery center and post flyers at the center. A Letter of Cooperation was sent to the two surgeons prior to the study taking place. This letter is located in Appendix E of this dissertation. Flyers were posted at the Weight Loss Surgery center that discussed the study and how participants could contact the researcher by phone or email. A copy of this flyer is located in Appendix C of this dissertation. Participants were not forthcoming from intended recruitment method. Therefore, as an alternative means of recruitment, additional participants were located by means of flyers sent to individuals who had undergone weight loss surgery as well as word of mouth. The researcher also attended a support group for individuals who had undergone bariatric surgery and conducted recruitment after the session. The recruitment process took a little over 3 months in order to recruit 15 participants.

Of the 15 participants, nine (60%) of the participants had their surgery through the Weight Loss Surgery Center. One of these participants received a flyer in the mail, one participant had attended the support group, and the other seven were found by word of mouth either from colleagues who work with bariatric patients or participants telling their friends about the study. Five participants were found by word of mouth of a colleague who told individuals about the study. All five of these participants had their surgery at the Delmarva Bariatric and Fitness Center located in Salisbury, MD. One participant was recruited by word of mouth from a colleague who lived in Overland Park, KS and had her surgery in Spain. The participants were then contacted in person or by telephone by the researcher and were asked whether or not they

wished to participate in the study. They were asked questions regarding their age and when they had their surgery to determine if they met criteria for the study. The researcher then scheduled a time to meet with each participant to go over the consent form, ask the participants if they had any questions, and to conduct the individual interviews for the study.

Participant Characteristics

The attributes of the participants were diverse in age, weight loss, what type of surgery they underwent, gender, and race. Out of the 15 participants, 2 (1.3%) were African American. The remaining 13 participants (87%) were White. Ten (67%) of the participants had gastric bypass surgery. Five (33%) of the participants had lapband surgery. Ten (67%) of the participants were from the Hampton Roads, VA area. Five (33%) of the participants were from the Salisbury, MD area. The participants who underwent gastric bypass surgery lost on average 127 pounds. The participants who underwent lapband surgery lost on average 41 pounds. The average age of the participants was 45 years old with the youngest participant being 32 years old and the oldest participant being 66 years old.

Participant Profiles

Participant Number 1, TB, is a 36-year-old African American woman. She was recruited by word of mouth from a colleague. TB works out of her home as a medical transcriber. She was separated from her husband and living with her mother while raising her teenage daughter. She had recently moved back to the Newport News, VA area after living in Florida for four years. She underwent gastric bypass surgery in 2005. She had lost almost 125 pounds at the time of the interview. TB met with the researcher at the researchers' place of employment to be interviewed.

Participant Number 2, BS, is a 51-year-old White woman who is married and has two grown children. Her daughter and granddaughter were living with her. She was retired from the

Air Force and was working as a self-employed organizer. BS underwent gastric bypass surgery in 2007. She had lost 111 pounds since her surgery. She was recruited by a flyer that she received in the mail. The researcher met with BS at BS's home to be interviewed.

Participant 3, RP, is a 45-year-old White woman. She was married and had no children. She was working full time as a finance assistant. She underwent gastric bypass surgery in January 2009. She had lost 137 pounds at the time of the interview. She was recruited by word of mouth from a colleague and her surgery through the Weight Loss Surgery Center. RP met with the researcher at the researcher's place of employment to be interviewed. Her husband accompanied her to the interview.

Participant 4, CK, is a 37-year-old White woman. She was married and had a six year old daughter. She worked as a real estate agent in Millsboro, DE where she also resided. She underwent lapband surgery in August 2007. She had lost 40 pounds since her surgery. She had her surgery through the Delmarva Bariatric and Fitness Center. She was recruited by word of mouth from a colleague. CK was interviewed at her place of employment in her office.

Participant 5, JH, is a 66-year-old White female. She was married and had three daughters. She worked in the office of a golf course community as a sales agent located in Millsboro, DE where she also resided in that community. She underwent lapband surgery in June 2008. She had her surgery through the Delmarva Bariatric and Fitness Center. She had lost 25 pounds. JH was recruited by word of mouth from a colleague. She was interviewed at her place of employment in her office.

Participant 6, SE, is a 52-year-old White female. She was married and had two children. She worked in the office of a golf course community located in Millsboro as an office assistant. She underwent lapband surgery in September 2008. She had lost 90 pounds since her surgery.

SE's surgery was performed by a surgeon at the Delmarva Bariatric and Fitness Center. She was recruited by word of mouth from a colleague. She was interviewed at her place of employment in her office.

Participant 7, PG, is a 38-year-old White female. She was married and had two young daughters. She was working for the State of Virginia as a social worker. She underwent gastric bypass surgery in February 2009. She had lost 86 pounds since her surgery. She was recruited through a support group for gastric bypass patients that is run by the employees of the Weight Loss Surgery Center. PG was interviewed at her home located in Hampton, Virginia.

Participant 8, LF, is a 39-year-old African American woman. She was a single mother raising her 10 year old daughter. She worked for the State of Virginia as a case manger with special needs children. She underwent gastric bypass surgery in May 2006. She initially lost 130 pounds and had then gained back approximately 20 pounds. LF was recruited by word of mouth from a colleague. She had her surgery through the Weight Loss Surgery Center of Hampton Roads. LF was interviewed at her home.

Participant 9, KT, is a 59-year- old White women. She worked as finance specialist in Overland, Park, KS where she also resided. She was divorced and had one daughter and one son. She underwent duodenal switch surgery in January 2001 in Spain. She lost 102 pounds after her surgery and had gained back six pounds. KT was interviewed at her home.

Participant 10, BK, was a 55-year-old White woman. She worked as receptionist as a civilian for the Army in the legal department. She was divorced and had one son and one daughter. She underwent gastric bypass surgery in February 2001. She had lost 135 pounds. She had her surgery through the Weight Loss Surgery Center. She was recruited by word of mouth from a colleague. BK was interviewed at Starbucks.

Participant 11, MB, is a 32-year-old White female. She was divorced, living with her partner, and raising her nine year old son. She resided in Newport News, VA. She had just went back to school for a degree in human resources. She was looking into employment with the Weight Loss Surgery Center. She underwent gastric bypass surgery in March 2008. She had lost 220 pounds since her surgery. MB had her surgery through the Weight Loss Surgery Center. She was recruited by word of mouth from a colleague. MB was interviewed at the researcher's place of employment.

Participant 12, JG, is a 64-year-old White woman. She was a widow of five years and had one daughter and one son. She was retired, but had worked in schools in various positions in the past. JG underwent gastric bypass surgery in 2000. She had her surgery through the Weight Loss Surgery Center. She had initially lost 145 pounds after her surgery and then gained back 50 pounds over the past 7 years. JG was recruited by word of mouth through a colleague. She was interviewed at her home.

Participant 13, YR, is a 32-year-old White female. She was single and living with her partner in Newport News, VA. She was a full time student. YR underwent gastric bypass surgery in April2008. She had lost 105 pounds. She had her surgery through the Weight Loss Surgery Center. YR was recruited by word of mouth from another participant who had told her about the study. YR was interviewed at the researcher's place of employment.

Participant 14, KR, is a 44-year-old White female. She was married and had a four year old daughter. She was a stay at home mother. KR resided in Lewes, DE. She underwent lapband surgery in April 2009. She had her surgery through the Delmarva Bariatric and Fitness Center. She had lost 25 pounds since her surgery. She was recruited by word of mouth from a college. KR was interviewed at her home.

Participant 15, DR, is a 49-year-old White male. He was married and had a four year old daughter. He worked as an accountant for a seafood company located in Seaford, MD. He resided in Lewes, DE. He underwent lapband surgery in April 2009. He had lost 30 pounds since his surgery. He was recruited by word of mouth from a colleague. DR was interviewed at his home.

Data Collection and Storage

Each participant was interviewed face to face either at their home or in an office setting. Consent forms were reviewed at the beginning of each interview. A copy of the consent form was given to each participant. The interviews were recorded using a digital voice recorder. Each interview was then downloaded and stored to the researchers' private pass word protected computer. Each interview was transcribed by the researcher and stored in a locked filing cabinet within the researcher's home. No identifying information was used within the transcripts. The printed versions of the transcripts were also kept in a locked filing cabinet within the researcher's home.

Data Analysis

The transcribed interviews were printed off and then analyzed through a multi-step process. The first step in the data analysis process was listening to the audio recordings of each interview in their entirety to gain a general understanding of the collected data. The second step involved reading each transcribed interview in its entirety to gain further understanding of the data collected. The third step was to then highlight statements or words made by each participant that had significant relevance to the proposed research questions and the social and emotional experience of undergoing bariatric surgery. Each transcript was then downloaded to a qualitative data analysis system, NVivo 8 to assist in further data analysis. The highlighted words and

statements from the transcripts were then divided into nine different categories based upon the nine interview questions that were asked of participants that were based upon Personal Construct Theory and involved the social and emotional experiences of bariatric patients post surgery. These categories are (1) anticipated changes; (2) emotional wellbeing; (3) identity change; (4) perceptions of self; (5) social situations; (6) support system; (7) surgical experience; (8) thoughts about self; and (9) worldview. The aforementioned process led to the development of specific themes relevant to the social and emotional experience of undergoing bariatric surgery. Based upon the themes that developed, individual descriptions were formed by listing statements of each participant that were relevant to the primary themes that were generated. Individual descriptions of the experience were then compiled by theme similarity to form an overall group description of the experience of undergoing bariatric surgery. Throughout the data analysis process, NVivo8 was used to assist in storing all of the data in an organized manner using tree nodes, nodes, and cases. The cases were identified as each participant interview. The Tree nodes were identified as the nine categories that were generated from the interview questions. The nodes were then generated by the specific relative themes that were developed from the coded interviews.

Themes Identified

The purpose of this study was to explore the social and emotional experiences of bariatric patients post surgery. Personal construct theory (PCT) was chosen to help develop the research questions and guide the study as this theory is based upon how individuals see themselves in the world. The findings below are presented in a way to demonstrate the different primary themes that were generated through the data analysis process that describe the individual and overall group experiences of the social and emotional experience of undergoing bariatric surgery.

Individual participant statements are provided to demonstrate examples of individual and group findings to illustrate the social and emotional experience of undergoing bariatric surgery.

Surgical Experience

The group described their experience of undergoing bariatric surgery as an experience that they would go through again if it were necessary. They found the experience to be an adjustment to their life style, but for the participants that had the surgery more than 2 years ago, they found that they do not think about having had surgery anymore and that now "it's just a way of life." CK indicated that after having lapband surgery that having undergone surgery is just her way of life now so she does not even notice the changes she has made. Several of the participants described undergoing bariatric surgery as "a good experience."

The 5 participants who underwent lapband surgery all described the surgery as "easy." JK responding to her bariatric experience, discussed how the procedure was so simple that she now sees overweight individuals and wants to recommend the surgery to everyone.

I had the lapband surgery. I have lost about 25 pounds. It was so simple. I mean it really was really simple. It was such a simple procedure. I can't emphasize that enough. It was so good, easy. It was just a really good experience.

Five of the participants who underwent gastric bypass surgery had complications afterwards, and discussed how they were very sick and had to stay in the hospital. RP discussed how after she came home from the hospital she had a lot of difficulty with nausea.

> I was doing really good and I was up several times that day so they let me go home early and but afterwards when I got home I had a lot of difficulty with nausea and it lasted for like 6-7 weeks. I got dehydrated and I had to go back to the hospital three different times. Twice to the emergency room for just fluids and then I got ill where I was vomiting and that was over a period of a few days.

The group discussed what the different motivators in their life were that made them to decide to undergo bariatric surgery. Some of the participants had surgery for medical reasons, because they have children, and some stated they were just tired of being overweight. For others like LF and YR, it was that they had seen themselves in pictures and then realized how overweight they were. LF described seeing herself in a picture as her motivator to undergo gastric bypass surgery.

> Once I looked at a picture and saw who I become physically, I was like, No, that is not me. Once I realized the size I was visually when I saw a picture I was like that is not me. That is not who I see myself to be. So once I saw myself at that weight that was like a smack in the face and I said that is not who I want to look like. That is not who I want to be. So that was emotional.

Overall, the group as a whole related that undergoing the surgical experience of bariatric surgery as a good experience and something they would do again even after having undergone complications. The five participants that had lapband surgery described the surgery as easy and had no complications with their surgeries. Whereas the participants that underwent gastric bypass surgery discussed the difficulties they had with medical and physical complications afterwards. The participants underwent bariatric surgery for their own individualized reasons. However, as a group they described choosing to have the surgery because it was difficult to be overweight physically, emotionally, and socially.

Thoughts of Self

The group described how their thoughts about themselves have changed or stayed the same since undergoing bariatric surgery. Six of the 15 participants discussed how their thoughts about themselves had not changed since undergoing bariatric surgery. They described how they see themselves as “the same” or “the same fat person.” When CK was asked how her thoughts had changed about herself since having surgery she replied by discussing how she sees herself

"just as fat as I ever was." BK described how changing her thoughts about herself has been the most difficult experience after undergoing bariatric surgery.

> Yeah, it's been weird because I look in the mirror and I still see the same fat person. It's been very hard to change my body image and my outlook. It might be letting go of some of that protection too that the weight gave me. Intellectually you know okay yeah I have really lost a lot of weight, but it just takes a lot of time to get to that part of your bran that says yeah I look good.

Five of the participants discussed how they feel more confident or secure after having undergone bariatric surgery. They discussed how when they walk in a room they feel more as though they "blend in" rather than sticking out. KR described the experience by discussing how she felt "more confident" and felt better physically so therefore she felt better emotionally as well. PG discussed how she felt more assertive and confident and "did not take crap" from anyone anymore. Several of the participants discussed how changing physically changed their thoughts about themselves. They discussed their bodies as being more "malleable" and "having the ability to do more physical activities." BS described her experience as not having as many worries.

> I am more secure about things. You know in my work, I am more secure. I don't worry so much about appearance and I can perform better. I used to isolate myself when I was overweight. I just don't have as many insecurities. It is a big load to be overweight, so I have less stress because I can do that now so it really was the right choice for me.

Overall, the participants discussed that they either felt more secure, confident, and had less worries or that they continued to see themselves as "fat." A few of the participants discussed how their thoughts are variable going from feeling positive about themselves to continuing to have negative thoughts about themselves. SE described how her thoughts about herself vary.

> That's really kind of difficult because there are times when I look in the mirror I see the 250- pound Shirley in there and then there are times I look in the mirror and I go, Wow

> what the hell happened to me. If I am going to the gym and I am doing things and all of that stuff, then I am feeling good. I feel good about myself in general.

Emotional Well-Being

The participants discussed how their emotional well-being has changed or stayed the same since undergoing bariatric surgery and how their emotional well-being affects how they view the world. The majority of the group replied that their emotional well-being had improved since undergoing bariatric surgery. When the participants were asked how their emotional well-being had changed since having surgery, many of them responded by simply stating, "It's better" or "It's good." SE described the changes in her emotional well-being.

> I am probably more level. I don't have that same anxiety of oh I have to go and so and so. How in the world am I going to find something that fits me? So emotionally I think I am much, much, much better. Yeah, I am probably much happier. I am much more willing to toss things off.

RP had a positive and negative experience in response to her emotional wellbeing after undergoing surgery. She described her emotions as a "rollercoaster." She had been initially sick after having surgery and that experience of undergoing surgery made her feel depressed. However, as she started to lose weight her emotional wellbeing improved.

> It was depressing at first. It was sort of like a rollercoaster. I was so excited to have the surgery and then with being so sick I was depressed and was thinking what did I do to myself. Now I feel more energetic and a lot better. I am a lot happier now.

In general, the participants responded to the question regarding their emotional wellbeing in that their emotional wellbeing had improved for variable reasons such as feeling healthier, more energetic, more stability, and more confidence. A few of the participants responded that it was a "big adjustment" at first to adjust to the surgery so therefore they experienced some anxiety and depression. PG discussed how she has had some anxiety after undergoing surgery

due to the changes she has had to make. She had lost weight in the past and gained it back. She discussed how she was no longer able to use food as a "crutch."

> The emotions itself, yes it can tend to create a happy road for you or a little bit of a dampened world for you, and I probably suffered some depression along with the anxiety. I think the anxiety and depression come from because I have to deal with a lot of real life problems right now without having a crutch. It's been difficult for me and people would make me mad and I would eat something and I would be happy and I would eat something. Or would be sad and I knew that food was really comforting.

Worldview

The participants discussed how their worldview had changed since undergoing surgery. Several of the participants discussed how losing weight has opened their world to them. BK and MB discussed how they went back to school after their surgeries and they would not have done that if they had not lost weight. The participants discussed how they have been treated differently since no longer being obese. Several of the participants discussed how they have noticed that people have treated them differently since undergoing bariatric surgery. BK discussed how she had noticed that people had treated her differently since her surgery.

> I definitely think that people treat me different, but I think a lot of people are just kind of shallow. But yeah, you know it is amazing how just having weight on you what that does you are not any different, you are not any different. You may have eaten more but that is the only difference that you used to put more food in your mouth. That is it.

TB's experience in recognizing how her worldview had changed was similar to BS's. She too noticed how people treated her differently.

> The biggest change I have noticed is just that people treat you different. I think that is the biggest change is that heavier people are treated much different then you know smaller people and I still struggle with that in my mind. People can be very judgmental. It bothers me sometimes.

The participants also discussed how now when they see obese people they want to tell them about the surgery so that they do not have to "suffer" with obesity. CK and MB described how they would both like to go up to people who are obese and tell them about their positive experience of undergoing bariatric surgery in order for others to feel as good as they do. MB discussed how she is now working for the Weight Loss Surgery Center, where she had her surgery, due to the positive experience she had and wanting to help people with obesity.

> I have a soft spot in my heart for people dealing with obesity. So I find myself in public and I am out with people and every time I see someone who is struggling with their weight I kind of get you know almost a like a hurt feeling. I just want to go up to these people and like almost be the Billy Graham of weight loss surgery. You know, just go up there and hand them a card, but you can't do that all of the time.

Social Situations

The two major themes that were discussed frequently in regards to how the participants viewed themselves in social situations since having surgery were feeling more comfortable and feeling less self-conscious. The participants discussed how they were going out more and doing more physical activities due to feeling less self-conscious. The group of participants discussed how they felt less insecure and worried a lot less about being in social situations. BK discussed how traveling pre-surgery caused her to experience a lot of anxiety due to worrying about fitting in an airplane seat. She discussed how she no longer has to worry about such situations.

> Getting on an airplane was painful and torture and embarrassing. So socially, I think I am more comfortable than I was before. I get out more. I don't think about it as much you know. I am not as worried. You just don't worry as much, sort of like the rest of the world, you just get up and go. It feels good.

When answering the question of how she viewed herself in social situations since having surgery, BS also discussed how she was feeling less worried and more comfortable. She

discussed how she would waste a lot of time worrying about trying to please other people and how she was very insecure before having the surgery.

> I think that I was the person that was very insecure. I was always worrying about what other people were thinking instead of being worried about what I should be thinking. I think about what I am thinking now and where I need to be and what I am doing and I don't think that is selfish anymore. I used to waste so much time worrying about trying to please other people. I am more confident and secure socially now.

A few of the participants discussed how they did not view themselves differently in social settings since undergoing surgery. They discussed how they had always been outgoing people and they continued to be outgoing. However, the more they discussed how they viewed themselves in social situations, they too used phrasing such as "feeling more confident" and "worrying less." RP discussed how she had always been a very social person and continued to view herself as social after surgery, however, she was doing a lot more after surgery.

> I see myself as pretty much the same. I have always been pretty social. I have always done a lot, but now I am doing much more physically. I want to buy a bike and I would have never thought about buying a bike in the past when I was so overweight.

Support System

The participants discussed how their support system influenced their experience of undergoing bariatric surgery. Thirteen of the 15 participants (87%) discussed how their support system influenced them in positive ways. Only two participants (13%) discussed how their support system was based upon themselves. The 13 participants who discussed having a positive support system talked about how their family, and friends and attending monthly support group helped them after undergoing bariatric surgery. Several of the participants discussed how attending monthly support groups for bariatric patients were an essential part of their weight loss. KR discussed how attending monthly support groups influenced her.

> I go to monthly support group meetings. You walk away feeling that you really have not been alone all these years through all of your weight loss failures and ups and downs with diets. There are a lot of you out there and they think the same type of thoughts you felt and sometimes still feel about food that naturally thin people would not understand. I believe that is one of the most important steps to help in my weight loss success.

YR also discussed her positive experience with attending support groups. She discussed how she will continue to attend support groups even though she is at her goal weight because she finds them so helpful.

> You see new people every month at the support group that you would have never met before. People open up and talk about how they overeat, people who are complete strangers open up and you get the feeling that everybody in that room understand what you are going through.

KT discussed how her family and friends were supportive of her. Their support helped her to enjoy her weight loss and allowed her to be social.

> I have a good network of family and friends, which I think is real important for anyone who has had weight loss surgery. I have a good social group that I hang out with too which is great because I am a social person and I like to do social things, so I am lucky there too.

The two participants that stated that they did not rely on a support group after undergoing bariatric surgery discussed how they could only rely on themselves to lose weight. LF responded to the question of how she views herself after surgery by stating, “My support system is myself.” She believed that she had come to terms with the fact that she had to lose weight for herself and no one else can influence how she viewed herself. PG had a similar response to the question of how her support system had influenced herself after undergoing bariatric surgery. She stated, “Actually, it is more relying on myself now then it has been on others.” She too took the responsibility of losing weight and placed it upon herself.

Perceptions of Self

The participants discussed how their perceptions of self stayed the same or changed after undergoing bariatric surgery. As a group, the participants discussed how their confidence had improved, but overall they saw themselves as the same person. Several participants discussed how they looked in the mirror and still saw the "fat girl." The participants discussed how they still struggled with not having a positive body image and continued to find things "wrong" with themselves.

DR and KR discussed how their confidence had gone up after surgery. DR stated, "My confidence level has definitely gone up since surgery." JH also responded "I am more confident" when responding to the question of how had her perceptions of self changed since undergoing bariatric surgery.

Several of the participants responded by stating "I see myself as the same" when asked how their perceptions of self had changed since undergoing surgery. TB discussed how she saw herself as the same after surgery even though she had lost over 100 pounds.

> I see myself as the same. I think I am the same person. To me I still see myself as being the same the only difference is that I have smaller clothes now and this probably the biggest excitement of the whole thing for me in having smaller clothes. I still find everything wrong with me. I still look in the mirror now and I still see the chubby me.

YR discussed how other people expected her personality to change after undergoing bariatric surgery, but she continued to see herself as the same.

> I think a lot of people expected my personality to change a lot for some reason. Whether it was for me to be outgoing or for me to be a little more conceited. Myself, I don't think my personality has changed a lot. It's just pretty much the way I see myself physically other than my behavior that has changed. My personality and social behavior I think have stayed the same and the physical image of myself and what I can do with my health has gotten better. I see myself as a healthier more fit person.

Identity Change

The participants discussed how their identities changed or stayed the same since undergoing bariatric surgery. As a group, the participants reported that they saw themselves as "the same," however, other people believed that their identity had changed or perceived them as different. The participants discussed how even though they had lost weight, they continued to see themselves as "fat,"but also saw themselves as "normal." JH responded to the question of how her identity had changed after undergoing bariatric surgery by stating, "zero." SE answered the question by stating, "I don't feel any different in my head." BK explained how her identity had changed by stating that she "fit in more with normal people." She also stated, "I don't feel like I stand out anymore, I am just average." RP discussed how other people saw her as different, but she did not see herself as different.

> People see me as different, but I don't see me as different. I see myself as thinner, but I still think of myself as fat. I am still outgoing. I guess I just don't see myself as different.

CK described how she went through different identities after she underwent surgery, but still saw herself as being "the fat one."

> I went through a couple of identities the past two years. The crazy rebellious, more social, outgoing, dangerous person. I think I am back to who I was and now I am hoping that I am not the fat one anymore, but of course when I look at it, I am still the fat one. I am always going to be the fat one in my head, but I think out there, not so much. Like I think I blend in better. Like I am more average now. Physically I blend in better.

Anticipated Changes

The participants discussed what changes they had anticipated prior to undergoing bariatric surgery. The majority of the participants discussed how they were not sure what to expect after undergoing surgery because for many of them, they had never been thin. DR and KR discussed how they did not know what to expect after having surgery, but they were hopeful to

lose weight. They discussed how they were not sure what to expect since they had "failed" at so many weight loss attempts in the past. KR described what she had anticipated after undergoing surgery.

> I can say that I was hopeful before surgery, but still not totally convinced until after surgery and the weight really did start coming off. I did not know what to expect because when you have been overweight or heavy for most of your life and tried just about every diet that exists, you become a little skeptical.

BK discussed how she anticipated that she would notice her weight loss more. She discussed how the "mental" aspect of undergoing surgery and how it had been difficult for her to change how she viewed herself after surgery even though she knew she had lost weight and looked better.

> I think I thought that I would see the changes more. I think I thought that once I lost the weight I would be one of those ladies that puts her pictures all over the place and was like look how great I look, but I really didn't. It's all in my head. Maybe that will never change. Yeah, I guess I anticipated going out buying boots and a leather skirt and stuff and really you know you are just the same person. You are still the same person. I am not one of those showy people. I have been depressed and I take my Prozac, but it just life. You have your ups and downs, so I don't think it has anything to do with the weight. I think it just has to do with life.

Evidence of Quality

Once the interviews were audio recorded, transcribed, coded, and analyzed, the process of verification followed. The data for this study were verified by, prolonged observation, thick description, keeping an audit trail, and triangulation. Thick description has been demonstrated by using direct quotes from the transcribed participant interviews to provide direct data and support for the themes that were identified. Details were given about each participant, the context of the study was described in detail, and the procedures that were used in this study were described in detail. The researcher kept a journal, interview protocols, transcribed records, and coded records

of the interviews throughout the study in order to maintain an audit trail in the event that this study were to be replicated.

Individuals who work with bariatric patients were interviewed as method of triangulation. Three individuals who work closely with bariatric patients were interviewed and asked the following questions:

1. What is your experience in working with bariatric patients?
2. How do you think bariatric patients respond to surgery?
3. What have you seen as the most pressing problem bariatric patients face after surgery?

A personal trainer, a nurse, and a bariatric support group leader were asked the above referenced questions. All three individuals have had different experiences working with bariatric patients. The personal trainer described her experience working with bariatric patients as the following:

> I have mixed reviews regarding those people I have met who have undergone bariatric surgery. I also know some friends and family personally who have had gastric bypass and lapband surgeries and I have found that the most significant variable to whether they will have long term success is the patient's attitude going into the surgery. Many patients do not put enough energy into the behavior modification piece following surgery. For those patients going into the surgery with a quick fix attitude in mind, I find that relapse is almost inevitable. The patients who follow up their surgery with proper diet and a regular, moderate exercise routine, are most successful with long term weight loss success.

The nurse and the bariatric support group leader had similar experiences regarding bariatric patients. The bariatric support group leader described how she had noticed that the population of individuals who are undergoing surgery had changed over the past four years. She described her experience in working with bariatric patients as the following;

> In the past four years I have noticed a significant change in the type of people who are having surgery. Four years ago the support groups were completely full and we would have to use two rooms to fit everyone. Now, only about 20 people show up for a support group. I see a lower socioeconomic and uneducated individuals are having surgery. It worries me because these people are not educated about the outcomes and side effects of the surgery and they could potentially kill themselves if they overeat. I don't worry so much about the people having lapband surgery, but I worry about the people having gastric bypass surgery. I see that a lot of people see the surgery as a quick fix and they do not want to take the time to learn what behaviors they need to change after having surgery.

The nurse had a different experience in working with bariatric patients because she did not engage in long term care with bariatric patients. She saw patients after their surgery, but did not have ongoing contact with specific individuals who had undergone bariatric surgery. She described her experience working with bariatric patients as the following:

> I see patients right after they have surgery. Prior medical conditions and age seem to be the biggest factors in determining how people respond to surgery. Our goal is to get people up and moving as soon as possible after surgery. Some people have pain and others are able to get up quickly after surgery. They are on a liquid diet while in the hospital and this does not seem to be a problem for most patients. The gastric bypass patients definitely have more complications and problems then the lapband patients.

Researcher bias is a confounding variable that needs to be accounted for in the verification of this study. The researcher conducts psychological evaluations for individuals who are considering undergoing bariatric surgery. The researcher also works as a therapist who sees individuals who have undergone bariatric surgery and therefore, opinions regarding bariatric patients may have developed prior to the interviews with participants taking place. However, the researcher listened to the experience of each participant objectively and avoided clarifying questions that may have led the participants to respond in a fashion that was consistent with this researcher's experience. This approach was also applied during each step of the data analysis process.

Summary

This chapter discussed the recruitment of participants, the profile of each participant, data collection, data analysis, themes developed, and the verification process. Results of this study indicated that bariatric patients experiences after surgery are similar in regards to how they view themselves, the support they receive, and how they view the world. Each participant's experience was unique, but common themes were seen among the group of participants. The group of participants saw themselves the same after surgery, but felt better , were more confident, and felt emotionally better. However, the participants continued to identify themselves as "fat" even though many of the participants had lost over 50 pounds. The participants found that their support systems were beneficial in their weight loss success and found comradery by attending support groups. Chapter 5 discusses an in interpretation of the findings, implications for social change, recommendations, and conclusions.

CHAPTER 5:

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Introduction

The prevalence of extreme obesity has increased significantly over the last decade and doctors are more frequently recommending weight loss surgery to their patients as a means of treating obesity. As a result of these recommendations, several thousands of weight loss surgeries are performed every year in the United States (American Society of Bariatric Surgery, 2007). Past research has documented a high prevalence of psychiatric comorbidities in extremely obese patients, including eating disorders, especially binge eating, and affective disorders, such as depression and anxiety (Black, Goldstein, & Mason, 1992, Greenberg et al., 2005; Sarwer et al., 2004). After experiencing dramatic weight loss, bariatric patients are faced with psychological, social, and physical changes creating change in their perceptions of themselves. Therefore, personal constructs of bariatric patients would significantly change and influence their social and emotional functioning. There is limited research on how bariatric patients are coping with the social and emotional changes that they face after undergoing surgery. Thus, the purpose of the study was to gain meaningful insight into the personal constructs of bariatric patients after they underwent bariatric surgery and how they were coping socially and emotionally. Furthermore, this study was designed to explore how bariatric patients view themselves after surgery and what variables have influenced them socially and emotionally. The researcher aimed to gain a true understanding of undergoing bariatric surgery. Phenomenology was chosen as the research method for this study because the phenomenon of undergoing bariatric surgery is relatively new and the experience of undergoing bariatric surgery can only be best described by

the people who have undergone that specific experience. The goal of this study was to identify these social and emotional variables related to bariatric surgery.

Participants were recruited for this study by word of mouth and by flyers being posted at a weight loss surgery center. Fifteen participants were interviewed for this study. Each had undergone bariatric surgery within the past 10 years. The majority of the participants had undergone gastric bypass surgery and the minority of participants had undergone lapband surgery. The research questions focused on how the participants viewed themselves after surgery and how different social and emotional variables influenced them post-surgery.

The researcher interviewed 15 participants to explore their experience of undergoing bariatric surgery. Each of these interviews was audio recorded and then transcribed. The transcribed interviews were then coded to assist in identifying major themes that related to the participants as a whole. Discrepant cases were identified and discussed in Chapter 4 of this dissertation. NVivo8 was used as a means to store all of the data and to assist in coding the data to identify major themes among all of the participant interviews. The themes that were found were related to the nine research questions that were asked of the participants. The participants answered the following questions regarding their overall experience of undergoing surgery:

1. How their thoughts about themselves had changed.
2. How their emotional wellbeing changed.
3. How they viewed themselves in the world.
4. How their support system influenced them.
5. How their worldview had changed.
6. What perceptions about themselves had changed.
7. How their identity had changed.

8. What they had anticipated prior to undergoing surgery.

The above mentioned questions guided the themes and the findings of this study. The findings were based upon the major themes that were generated from these guided questions.

Findings

The findings from the interviews revealed that each participant's experience was unique, but common themes were identified among the group of participants. The group of participants saw themselves the same after surgery, but felt better physically and emotionally and, was more confident. They felt healthier and had less anxiety and fewer concerns. However, the participants continued to identify themselves as "fat" even though many of the participants had lost over 50 pounds. The participants found that their support systems were beneficial in their weight loss success and found comradery by attending support groups. Only two of the participants reported that they did not believe that they had a support system. They believed that they found support within themselves. All of the participants were satisfied with their surgery experience and reported that they would undergo surgery again if needed.

Interpretation of the Findings

The purpose of this study was to gain insight into the experience of undergoing bariatric surgery and how the personal constructs of individuals who have undergone surgery may have changed post-surgery. The research concluded that the personal constructs of the participants in this study did not change after undergoing bariatric surgery. As a group, the participants responded that they saw themselves as "the same" after undergoing surgery. However, the worldviews of the participants did change after surgery. The participants saw obese individuals differently after surgery and also stated that they believed "the world opened up" to them after undergoing surgery. They felt as though they had more opportunities such as traveling, going

back to school, and starting a new career after they had their surgeries. The type of surgery the participant underwent, the support that they experienced, and pre-existing psychological disorders are factors of consideration when interpreting the findings of this study.

Conclusions

Personal Constructs and Psychosocial Variables

In addressing the first research question, how the personal constructs of post-bariatric patients influenced by psychosocial variables, different themes emerged. The sixth research question regarding how the personal constructs of bariatric patients altered their emotional functioning was also addressed. The theme of body image appeared to be the most discussed psychosocial variable that influenced the personal constructs of the participants. The group of participants as a whole discussed how they viewed themselves "the same" or continued to see themselves as "the fat girl" after undergoing surgery. They believed that their physical appearance changed, but their mental state about themselves in regards how they viewed themselves. They discussed feeling more energetic, and they liked the fact that they could buy smaller sized clothing, but as a whole, they did not view themselves as changed. They discussed having more confidence and feeling more secure, but in regards to body image, that aspect of personal constructs did not change.

Several of the participants also discussed how they no longer have to worry as much since they have lost weight. They discussed how much easier it is to not have to think about if they are going to fit into an airplane seat or not or if they are going to have something to wear for a special occasion. Therefore, they saw that they had more opportunities in life and did not feel as constricted in what they could experience.

Personal Constructs and the Outcome of Surgery

The second research question addressed if the personal constructs of bariatric patients altered the outcome of bariatric surgery. As a group, the personal constructs of the participants did not alter the outcome of their surgery. However, there was one participant who saw herself as having "no discipline" and she lost the least amount of weight among all of the other participants. She had lost 25 pounds one year post surgery. She saw herself as not having discipline and she stated that due to her lack of discipline she was not doing the things "she should be doing" in order to lose weight such as going to the gym. The personal constructs of the other participants did not influence their weight loss. Regardless of how they viewed themselves prior to surgery, they lost weight after surgery.

Worldviews and Relationships

The third research question addressed how the participants' world views and relationships changed based upon their post-surgical weight reduction. The sixth research question also addressed how the personal constructs of the participants influenced their social relationships post-surgery. The majority of the participants did not experience any changes in their relationships post-surgery. They discussed how they had a good support system of friends and family prior to surgery and continued to have that same support system post-surgery. A few of the participants discussed how their friends anticipated them to behave differently post-surgery and were surprised when the participants continued to behave the same way after surgery.

One participant would qualify as a discrepant case among the participants. She discussed how she went through several changes after undergoing surgery. After her surgery she separated from her husband and described going through " a crazy time." She described how after she had

surgery she believed that she deserved for everything to be "perfect." She believed "if my husband is not perfect get rid of him." The participant and her husband have since reunited, but her perception of how she anticipated her life to be post-surgery did affect her relationship with her husband.

Several of the participants discussed how their weight loss opened up a whole new world to them. Therefore, they described their worldview changing in regards to having more opportunities and experiences to do things that they were not able to do when they were obese. Two of the participants went back to school after their surgery and losing weight. Two participants also changed their careers after losing weight. Many of the participants also discussed how they view obese individuals differently now. They have more empathy for obese individuals and would like to share their positive weight loss experience with them and encourage obese people to have bariatric surgery.

Constructs of Self and Weight Loss

The fourth and fifth research questions addressed how the participants personal constructs hinder or aided in their weight loss process. Data do not support the notion that the personal constructs of the participants aided or hindered in their weight loss process. Several of the participants discussed how having underwent bariatric surgery caused their weight loss to "just happen." This response was for the majority of the participants who underwent gastric bypass surgery. Due the way the surgery is performed, the participants did not feel hungry and could not eat as much as they had in the past. Therefore, weight loss did not take much work immediately after surgery. However, the participants who had their surgeries more than 5 years earlier discussed how they had to put more work into losing weight now in comparison to the effort that they had to put in a year after their surgeries.

As mentioned previously, there was one discrepant case that can be accounted for in regard to how the participants' personal constructs aided or hindered in their weight loss. As pointed out previously, one participant saw herself as having "no discipline" and she lost the least amount of weight among all of the other participants. She had lost 25 pounds one year post surgery. She saw herself as not having discipline and she stated that due to her lack of discipline she was not doing the things "she should be doing" in order to lose weight such as going to the gym. The personal constructs of the other participants did not influence their weight loss. Regardless of how they viewed themselves prior to surgery, they lost weight after surgery.

Personal Constructs and Eating Behavior

The seventh research question addressed how the personal constructs of bariatric patients affected their eating behavior after surgery. Three of the participants who underwent lapband surgery discussed how they had to be more mindful about chewing their food more carefully. They discussed how if they did not chew their food until it was smooth that they would get sick or feel like they were choking due to the pouch that is made with the band to produce a feeling of being full and a smaller stomach. However, two out of the three patients who underwent lapband surgery discussed how they can continue to eat whatever types of food that they would like to eat, but they just cannot eat as much of it. As a group, the participants discussed how they are just not capable of eating as much food due to having a smaller stomach. All of the participants were at a point post-surgery where they had learned what foods they could and could not eat and were able to eat most foods without getting sick. The overall consensus among the group was that they were just not able to eat as much food post-surgery.

For some of the participants their personal constructs did modify their eating behavior. Two of the participants were active in attending support groups, nutrition, and exercise. These

two participants saw themselves as "healthier and more fit" and therefore they made the biggest changes in their eating behavior. They discussed how they could not pick anything up without reading the labels for foods and learning the nutrition values in foods. The participants who had negative personal constructs did not change their eating behavior as much and did not lose as much weight. One participant discussed how she had always had a bad body image and had been in treatment for depression. She admitted to not making many changes in her eating or exercise and therefore, did not lose as much weight as she would have liked. Another participant saw herself as not having any discipline and therefore did not change her eating behavior and also did not lose as much weight as she would have liked.

Theoretical Framework

The results of this study do suggest that the personal constructs of bariatric patients change after surgery. The participants saw themselves as being less worried and more confident. They discussed how they felt more secure and more comfortable in social situations. Their worldviews changed in that they saw obese individuals differently and found that the world was more open to them. Personal construct theory developed by George Kelly provides a theoretical basis for the findings of this study. The essence of PCT is that personal identity is defined by the way we construe or understand our personal worlds. According to PCT, deeply embedded constructions of self are most often developed early in life. The data collected from this study would support this theory in that for the majority of the participants, even they though felt more confident and secure after surgery, they saw themselves "as the same." Therefore, these finding suggest that even after undergoing a major surgery and significantly changing their outward appearances, the majority of the participants saw themselves as the same in regards to their constructs of self and how they viewed themselves in the world.

Implications for Social Change

The participants in this study all underwent bariatric surgery within the past 10 years. The majority of the participants underwent gastric bypass surgery while the remaining five participants underwent lapband surgery. This study explored how the participants' perceptions of self affected change in relation to the psychosocial variables in their lives. The data from this study can be used by individuals who are considering weight loss surgery, mental health professionals, bariatric surgeons, and physicians to have a better understanding of what bariatric patients experience socially and emotionally after undergoing surgery. The data from this study can be useful to individuals who are considering undergoing weight loss surgery and professionals who work with bariatric patients to provide better presurgical and post-surgical treatment in regard to the physical and mental health aspects of undergoing bariatric surgery. The phenomenological nature of this study assisted in collecting data that helps in having more knowledge as to what psychosocial variables aide in recovery after bariatric surgery and what variables hinder recovery in relation to psychological factors such as mood, support, and behavior.

Researchers who are interested in public health and studying the societal impacts of obesity and how psychosocial variables may be reduced by undergoing bariatric surgery will be interested in the findings of this study as support appears to be a key factor in the success and overall wellbeing of bariatric patients post-surgery. Clinicians who work with clients who have undergone bariatric surgery will also be interested in the findings of this study in regard to how the participants found that support was beneficial to their recovery after surgery. Clinicians can share this information with their clients and encourage their clients to attend bariatric support groups to enhance their success at weight loss and strengthen their emotional wellbeing.

Insurance companies and economists can use the data from this study to gain insight into how bariatric surgery may allow for the reduction of long-term medical treatment by eliminating or reducing comorbid conditions that exist with obesity.

The findings of this study could have implications for expanding coverage for mental health and support services post-surgery for patients due the findings that bariatric patients continue to struggle emotionally after surgery and after losing weight. The findings of this surgery also indicate that bariatric patients may experience body dysmorphic thoughts as several participants in this study continued to see themselves as "fat" even after losing a considerable amount of weight. Mental health professionals can use the findings of this study to help clients that they see in treatment prepare for and what to expect after undergoing bariatric surgery. They can share the findings of this study to help clients recognize that their emotional well being may not change after surgery and to help them have realistic ideations regarding changes they can expect after undergoing surgery. Additionally, the findings of this study suggest that interventions to improve adjustment after undergoing bariatric surgery can assist patients in what to expect after surgery.

Conclusions

Bariatric surgery affects individuals differently, but as a whole provides a treatment for obesity that leads to a healthier and productive life. Bariatric patients are faced with significant psychosocial and physical changes after they undergo surgery and cope differently with the outcomes. Individuals who were depressed prior to surgery continued to receive treatment for depression although their physical appearance had improved and other psychosocial factors in their lives had changed for the better. Bariatric patients who lost the most weight felt more confident and secure whereas the participants who lost less weight continued to struggle more

with their confidence and body image. Overall, the personal constructs of the individuals changed in that they viewed themselves differently in the world as more opportunities opened to them, but they saw themselves as "the same" indicating no significant change in how they viewed themselves overall.

Previous research of bariatric patients primarily focused on the medical and physical health of patients rather than the social and emotional wellbeing of patients. Until now, research has not documented how different psychosocial variables alter the social and emotional wellbeing of bariatric patients and their personal constructs. In one previous qualitative research with bariatric patients found that the central theme of control was present in all areas of the participant interviews (Ogden, Clementi, & Aylwin, 2006). These researchers found that imposed control and limited choice can sometimes result in a renewed sense of control. Byrne, Cooper, and Fairburn (2003) also conducted a qualitative study using bariatric patients to look at maintenance and relapse after bariatric surgery. Their findings suggested that psychological factors partially accounted for the lack of persistence with weight maintenance following successful weight loss. Bocchieri, Meana, and Fisher (2002) used qualitative methods to identify the perceived psychosocial outcomes of gastric bypass surgery. The data from their study suggested that the process of change or transformation was the central outcome of undergoing gastric bypass surgery among their participants. They also found that the most positive change cited by patients was an increase in activities and physical abilities. Many of the participants in their study experienced change in their friendships and had difficulty adjusting to new eating behaviors when they varied from the strict post-surgery diet that they followed for the first 6-8 months after surgery.

The findings of this study were not consistent with previous qualitative research on post-surgery bariatric patients. Past qualitative studies found different emergent themes such as self - control and rebirth as the primary themes. The primary themes that emerged from this study were feeling more confident, body image, no change in perceptions of self, less worry, and more opportunities in life. The one finding from this study that is similar to past research is the finding in the Bocchieri study where participants found a positive change in the increase of activities and physical abilities.

Recommendations

Health care professionals, bariatric specialists, primary care physicians, mental health professionals, bariatric educators, researchers, bariatric patients, lay community members, and others who are interested in the psychological and social aspects of obese individuals and bariatric patients should consider the results of this study. The bariatric patients in this study experienced changes that transformed them socially and emotionally after surgery. They found that attending support groups or the support that they received from their friends and family made a significant difference in their post-surgery recovery and maintenance. The participants who were treated for psychological disorders prior to surgery continued to receive treatment after surgery. Many of the participants continued to struggle with negative body image issues even after losing a significant amount of weight. This study adds to the existing literature focusing on the psychosocial outcomes of undergoing bariatric surgery and sheds light on a growing population that had been rarely studied using qualitative methods that gained true insight into how this population views themselves and their environment after surgery.

Recommendations for Action

The findings from this study provide a more thorough understanding of how bariatric patients' perceptions of self induce change in relation to the psychosocial variables in their life. Individuals who choose to have bariatric surgery frequently have a history of psychological treatment and psychological disorders. Therefore, this study will be informative to those professionals that work with bariatric patients in assisting them to understand the psychosocial variables that affect bariatric patients post-surgery.

The findings of this study may be disseminated by being published in an obesity or bariatric journal. Other possibilities of dissemination include the researcher discussing the findings among colleagues (mental health professionals), bariatric specialists, and physicians. The researcher could write a summary of the findings in a community health journal or publish the findings online in an obesity-related forum. The findings would be explained in a way that the audience reviewing the findings, would understand them.

Recommendations for Further Study

The scope of this study was limited to 15 participants in which ten of them lived in the Hampton Roads, Virginia area. Only one participant was male. Expanding the number of participants, gender of participants, the area in which they live in, and diversify the type of surgery the participants underwent, would be beneficial for future research. The questions that the participants were asked for this study were specific to personal construct theory. Future research should include other theories to broaden the scope of questions in regards to the psychosocial variables that bariatric patients may experience post-surgery. Future studies should also examine further the benefit of support groups for bariatric patients and negative body image. A mixed methods study would also be beneficial in future research to further examine social and

emotional variables by using self-report questionnaires and measures. A comparative study of how different gender groups are responding to surgery would also be beneficial. A longitudinal study would be beneficial to examine the emotional and psychical changes of post-surgery bariatric patients overtime, in particular those variables that contribute to relapse or a poor outcome. A team-based qualitative approach to examine reliability and validity of themes would also be beneficial in future research. The team-based qualitative approach (Guest & MacQueen, 2008) would be particularly beneficial since there was a difference in data collected from this study and the Bocchieri (2002) study.

Reflection

The researcher's experience with the research process was enlightening and informative. Possible personal biases or preconceived ideas may have affected the findings of the study. Prior to conducting this study, the researcher had worked in a mental health capacity with bariatric patients. The researcher works as a therapist in the community where the research was conducted and the researcher performs psychological evaluations for individuals who are considering bariatric surgery. Thus, the researcher had significant prior involvement with bariatric patients and perspective bariatric patient. Due to the researcher's role as a therapist, the researcher had preconceived ideas regarding bariatric patient's psychological profiles. From personal experience and past research, the researcher had preconceived ideas that most bariatric patients have or currently experience depression, anxiety, or other forms of psychological disorders.

The researcher is known as a therapist in the community, which may have influenced how the participants viewed the researcher and answered questions. The participants could have been guarded in their responses in an attempt to appear as though they were not experiencing or

had not experienced any social or emotional problems to appear more favorable to the researcher.

The researcher learned that every bariatric patient had a unique experience, but as a group, there were several similarities. The confidence and security that the bariatric patients described experiencing after surgery was significant to how they were living their lives. It was insightful to examine how obesity closed off many opportunities to the participants and how losing weight opened many new doors to them such as traveling, changing careers, and going back to school. The most significant finding was how as a group, the participants saw themselves as the same person they were prior to surgery. Even though their physical appearance had changed, they believed that they behaved the same and overall had the same personality as they did prior to surgery. Losing weight did not change who they were on the inside. This information is important to the researcher as a therapist working with perspective bariatric patients to help them have realistic goals and expectations regarding the changes they will face after undergoing surgery. Perspective bariatric patients have unrealistic expectations of how the surgery may change their lives at times. The findings of the study can be shared with these perspective bariatric patients to help them gain insight into what to realistically expect after surgery. Therefore, the results of this study not only enhanced the researchers educational experience, but professional experience as well.

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APPENDIX A

CONSENT FORM

You are invited to take part in a research study of being an individual who has undergone bariatric surgery. You were chosen for the study because you have undergone bariatric surgery. Please read this form and ask any questions you have before agreeing to be a part of the study.

This study is being conducted by a researcher named Denise Hall, who is a doctoral student at Walden University. The researcher is also a therapist at Rock Landing Psychological Group and has experience working with bariatric patients.

Background Information:

The purpose of this study is to gather information regarding the experience of undergoing bariatric surgery.

Procedures:

If you agree to be in this study, you will be asked to:

- Answer questions to a semi-structured interview after you have undergone bariatric surgery. The interviews will be approximately one to two hours in length and will be audio recorded.

Voluntary Nature of the Study:

Your participation in this study is voluntary. This means that everyone will respect your decision of whether or not you want to be in the study. No one at the Hampton Roads Weight Loss Center will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. If you feel stressed during the study, you may stop at any time. You may skip any questions that you feel are too personal.

Risks and Benefits in the Study:

The risks of participating in the study may include divulging personal information about yourself. This information will be kept confidential and no identifying information will be used or reported in the findings of the study. You may refuse to answer any questions that are asked. The benefits of being in this study are that you will be able to help others like yourself understand what is like to personally experience undergoing bariatric surgery and how the surgery has affected your life. This study could lead to future research in helping professionals understand the mental health variables that are affected by bariatric surgery.

Compensation:

You will not be paid for your participation

Confidentiality:

Any information you provide will be kept confidential. The researcher will not use your information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in any reports of the study.

Contacts and Questions:

The researcher's name is Denise Hall. The researcher's faculty advisor is Dr. Charlton Coles. You may ask any questions you have now. Or if you have questions later, you may contact the researcher via phone at (757) 329-3177 or email at dhall001@waldenu.edu or contact Dr. Charlton Coles via email at Charlton.Coles@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Director of the Research Center at Walden University. Her phone number is 1-800-925-3368, extension 210.

The researcher will give you a copy of this form to keep.

Statement of Consent:

□ I have read the above information. I have received answers to any questions I have at this time. I am 18 years of age or older, and I consent to participate in the study.

Printed Name of the Participant:_____

Participant's Written Signature:_____
or Electron Signature

Researcher's Written Signature:_____
or Electronic Signature

Electronic signatures are regulated by the Uniform Electronic Transactions Act. Legally, an "electronic signature" can be the person's type name, their email address, or any other identifying marker. An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically.

APPENDIX B

CONFIDENTIALITY AGREEMENT

Name of Signer:

During the course of my activity in collecting data for this research: "A Qualitative Study of Bariatric Patients and Their Social and Emotional Experiences After Surgery" I will have access to information, which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participant.

By signing this confidentiality agreement, I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including friends or family.

2. I will not in any way divulge, copy, release, sell, loan, alter or destroy ay confidential information except as properly authorized.

3. I will not discuss confidential information where others can overhear the conversation. I understand that it not acceptable to discuss confidential information even if the participant's name is not used.

4. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.

5. I agree that my obligations under this agreement will continue after termination of the job that I will perform.

6. I understand that violation of this agreement will have legal implications.

7. I will only access or use systems or devices I'm officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

_____ _____

Research Assistant Date

APPENDIX C

A Qualitative Study of Bariatric Patients and Their Social and Emotional Experiences

A Research Study

Who: Women and men 18 years of age or older who have undergone bariatric surgery within the past 10 years who are willing to discuss their social and emotional experiences after surgery.

Content: The specific goal of this study is to further understand the social and emotional experiences of bariatric patients after their weight loss surgery and how patients 'constructs of themselves have changed after surgery.

Investigator: In depth interviews with be conducted by Denise Hall, a doctoral candidate in Clinical Psychology.

When: Following obtained informed consent, participants will meet individually with the principal investigator for one to three years to conduct the in-depth interview. Participants may be asked to participate in an interview on more than one occasion if necessary to collect further data.

Where: Participants may contact Denise Hall, principal investigator at (757) 329-3177 or dhall001@waldenu.edu to arrange a time a meeting place to conduct the in depth interviews.

Eligibility: Participants must be 18 years old or older and must have undergone bariatric surgery within the past 10 years. Individuals who are present or past clients of Denise Hall, principal investigator will not be eligible to participate in the study.

If you have any question about your rights as a participant in a research project, you should contact (anonymously, if you wish) The Research Participant Advocate at Walden University Leilani Endicott; you may contact her at 1-800-925-3368, extension 1210, if you have questions about your participation in this study.

APPENDIX D

Interview Protocol:

Date:_____

Location:_____

Name of Interviewer:_____

Name of Interviewee:_____

1. Tell me about your experience of undergoing bariatric surgery.
2. How have your thoughts about yourself changed since surgery?
3. How would you describe your emotional wellbeing since undergoing bariatric surgery? How does your emotional wellbeing affect how you view the world?
4. How do you view yourself in social situation since undergoing surgery?
5. How does your support system influence your thoughts about yourself since undergoing surgery?
6. What do you see as the biggest changes in your worldview since undergoing bariatric surgery?
7. What perceptions of yourself have changed or stayed the same since undergoing surgery?
8. In what ways do you feel your identity has changed since undergoing surgery?
9. Did you anticipate changes in how you would view yourself after undergoing surgery? If so, what did you anticipate?

Letter of Cooperation

Dr. Thomas Clark, MD
Dr. Anthony Terracina, MD
Weight Loss Surgery Center of Hampton Roads
645 J Clyde Morris Blvd.
Newport News, VA 23601
(757) 591-9572

Dear Ms. Hall,

Based on my review of your research proposal, I give permission for you to conduct the study entitled "A Qualitative Study of Bariatric Patients and Their Social and Emotional Experiences After Surgery" within the organization. As part of this study, I authorize you to invite members of my organization. Their participation will be voluntary and at their own discretion. We reserve the right to withdraw from the study at any time if our circumstances change.

I understand that the data collected will remain confidential and may not be provided to anyone outside of the research team without permission from the Walden University IRB.

Sincerely,

MD

T W Clark

APPENDIX F

Sample Transcript

Transcript Participant 4

Researcher: Tell me about your experience of undergoing bariatric surgery.

P4: Um. I don't think any surgeries are hard. I guess I am weird that way. Like you go to sleep and you wake up and you are better. And recovery wasn't even bad but we had. But the worst part about it was being on a liquid diet the week before. The week before nothing. I could drink anything I could get through a straw. So even thick soup broths I couldn't have but I probably lost 8 pounds that week just being on the liquid diet. And that was hard because you know that whole emotional food thing. Then right before surgery you are wondering like shoot I could do that for a week and lose that kind of weight do I need to do the surgery but um. Surgery was very easy. It was outpatient surgery so probably not like gastric bypass. Mine was outpatient. Um I was home that night and the next day up and walking around. So it was laparoscopic so. The reason I know the date so well because my daughter's birthday was two days later. So um I had a huge birthday party for her 2 days later. So as far as surgeries go it was fairly simple. Huge difference from gastric bypass. Major consideration. I mean nobody would have done gastric bypass on me because I was only 211. But I don't know if I would have done it. It is just a huge difference in the type of surgery and recovery. You process food differently you know your metabolism is all crazy. The band like nothing is different. Like the only thing that is different is that I can physically not eat a lot a food at one sitting. Like yeah I have to chew my food so small to get it to be able to go through the band. And it's just slows you down so.

Researcher: So it sounds like it was a good experience.

P4: It was. Yeah, yeah.

Researcher: How have your thoughts about yourself change since surgery?

P4: I still see myself just as fat as I ever was. So that has not changed. Like my clothes I fit in smaller sizes but now you got kind of like your I am an old lady so like 37 so skin doesn't bounce back like if I were 20. So now I look at my legs and I've got like some skin hanging and that's kind of gross. So I hate my body. Same as I've always hated my body. But I am healthier. You know I 'm carrying around less weight. So that is the good stuff. But my body image has not changed at all. Oh God no. Like now I just want to have all kinds of plastic surgeries to nip and tuck everything but I can't afford any of it so.

Researcher: It's expensive.

P4: It is. But like there is nothing like I don't know. I hate my legs. Yeah, no it hasn't changed. It hasn't changed. I can just buy clothes off of regular rack now instead of Lane Bryant.

Researcher: Do you think the mental part is difficult?

P4: Yeah it's the hardest part. But.

Researcher: That is good that you feel healthy though.
P4: Well yeah. I am definitely more active. It's only 40 pounds for me. I can only imagine people who have done gastric and have lost hundreds. Their difference. But even 40 pounds my difference in my activity level and you know my willingness to get down on the floor to play with kids and just being tired and not being able to get back up. Like all of that is gone. So um but it hasn't really helped the body image. That is sad isn't it?

Researcher: Do you think when you have a certain body image your whole life and then the expectations of how you want to be is difficult?

P4: Yeah like I just read that airbrushed Kelly Clarkson's body on the cover of Self or one of those like. Like there is nothing wrong with Kelly Clarkson but they airbrushed her down to a skinny little thing. But that I knew it's funny like my doctor is like yeah maybe next year this is when he was doing the surgery, maybe next year you will be in a bikini. Okay like I have always had very realistic goals. I will never be in a bikini. Like that is like I am not a bikini girl. I just knew I would never in a bikini without surgery. Especially now that I have scars on my stomach from the surgery he was doing. What is he talking about going in a bikini? So but that is okay. It's alright. It wasn't about that. It was truthfully this sounds stupid. I didn't want my daughter to have the big fat mother on the sidelines when she was on the sports team. I just didn't want Katie to have the big old fat mom that everyone made fun of. It wasn't even so much for me. I am 37, I am married, I have a kid. Yeah. Like I didn't want her to be embarrassed of the big fat. Now I don't have to be the town hot mom. I was trying not to use that terminology, but I don't have to be the hot mom. Like that doesn't have to be me. I am okay with that. But I didn't want to be the big fat mom. So. That had a lot to do with it.

Researcher: How would you describe your emotional well being since undergoing bariatric surgery?

P4: I was not emotionally healthy before surgery. I have been on antidepressants since college. So it's the same.

Researcher: The same?

P4: Yeah.

Researcher: No difference?

P4: No, No. Nope not at all. Because if I would have developed a great body image. I think if I would have done what one of the other people you are going to talk to goes and works out. I'm not working out. I am not doing all of those things I probably should be. Her self-esteem and body image is probably sky rocketed. Mine is exactly where it was. Like. So I would say that I am in exactly the same place that I was before.

Researcher: No change?

P4: No. Isn't that horrible? $17,000 later and nothing. Well I lost weight. It happens but I did it more because I was obese but I wasn't like morbidly obese. But I didn't want to get there either. And I just knew that I have had such an obsession with food my entire life that the biggest difference is that I would wake up and think what am I going to have for breakfast, what am I going to have for lunch. Ooo maybe we can go out to dinner. I don't think about food all day long. Like I used to think about food all day long. I can't eat it. I just can't eat that much food. So it took food which was right in front of my face and kind of moved it off to the side. And that was really what my expectation was. I just didn't want to be obsessed with eating.

Researcher: So you did get that goal?

P4: I did get that. So mentally that did improve. Like I am not obsessed with food. Like I am not constantly wanting. I don't know I was just obsessed with eating.

Researcher: Do you think it's because you are not hungry?

P4: I know it doesn't matter how good the good is. I know I can't eat that much. So am I going to drive and make everyone go out to dinner for a big fancy dinner because I can't eat that much you know. So do I get cravings every once in a while especially now that I am pregnant. Yeah, but um. Just food is a side item now. Food is not something that I have to do. I have to eat. Very rarely do I think I want to go out and eat a big dinner. I just can't do it. So that's huge. That's the biggest difference I have noticed.

Researcher: How does your emotional well being affect how you view the world?

P4: No. I still see it the same. No, I don't think so. Yeah. It's the same.

Researcher: How do you view yourself in social situations since undergoing surgery?

P4: Um. I guess I am more likely to go ahead and go out and be the one dancing rather than sitting. You know like I am less embarrassed of my physical um. I certainly am still not some teeny bopper bar fly. You know but I am less embarrassed. You know I feel like I am a little more attractive and I guess that goes back to the body image. I guess I do feel a little bit better so I will go out more. I still won't wear a bathing suit. I still hate wearing shorts and I will probably always hate wearing shorts and hate wearing a bathing suit. Um but I kind of also think it is what it is you know. I am okay with it. It is what it is. I am doing what I can do.

Researcher: Do you accept it?

P4: Yeah, yeah. Like I know unless I want to spend $100,000 on nip tucks this is what I am going to be and that's alright. But I am an old married woman now so my social life is not fantastic to begin with. I am a TV watching married woman who goes out occasionally for dinner with friends. And that's probably how it has always been. But.

Researcher: Do you feel that people treat you the same?

P4: You know it is 40 pounds. It's not like it is 500. You know. I am getting hit on a lot more that is for sure. Um I don't know if it is just maybe that I am putting myself out there in situations where I wouldn't have done it before. You know?

Researcher: Less social anxiety?

P4: Mmm. Hmm. You know and I am married but I am more willing to talk to people when I am out so I think it makes it easier for them to show some sort of interest. So you know it might be something that I am projecting other than just but um. What was your question? (Laughs).

Researcher: Just how view yourself in social situations since you have had surgery, has it changed at all?

P4: I am just less self-conscious about my weight but I'm always the funny one the social one to begin with and that hasn't changed. That is all the same. I am just not making fun of my weight anymore. But I am very open and I tell people like I ran into someone. I went out to dinner the other night. She's like Oh my God you lost a lot of weight. And I was like oh yeah I had the lapband done two years ago. Like I don't hide it. It's just it is what it is. Yeah I was big. I was fat. I had the lapband. Life is good now thanks for noticing and we move on like. But um so no I don't think it has but I bet if we just listen to everything I just said it probably has changed. (Laughs).

Researcher: It has. How does your support system influence your thoughts about yourself since undergoing surgery?

P4: My support system?

Researcher: Family, friends.

P4: Influence my thoughts? Yeah. My thoughts are pretty much the same. Like based on me. Like I don't know. People don't really affect how I feel about myself.

Researcher: Have they been supportive since you have had surgery?

P4: Oh yeah. My mom had it only a year later than I had it. So that's been good. You to kind of have the same person when we are both eating dinner and we both look at each other like oh my God it got stuck. That has been good. That has been good to have someone going through it at the same time. They have all been supportive. You know my husband is good. He's you know like when he is making dinner he is always making sure that it is something that I can eat. So that's been I mean he has been supportive but. I guess it was just like three months out I would have so much more to say about the difference but it has been two years now and I just feel like I am back to normal and I kind of forget all of the changes.

Researcher: Now you have just adjusted?

P4: Now it is just life. It's just my way of life now, so I don't notice.
Researcher: Well that makes sense. What do you see as the biggest changes in your worldview since undergoing bariatric surgery?

P4: Um. I am really boring. How I see the world? The biggest changes? You know the biggest thing that has changed is that I look at obese people and think if they would just get it. Like if they would just, like gastric bypass to me is just crazy. But the lapband is so easy. It was just so easy and when I see young women who still have that real elastic skin that will just bounce right back. Like if they would just do it now. I mean of course I'm not going around telling everyone to get it, but um I do think about how sad it is that people aren't doing it more. Because it's just it is an easy surgery. Very little side effects which is great benefits you know but.

Researcher: It sounds like it was such a positive thing for you that you want to share that with people and see them have a positive experience too.

P4: Yeah. Especially if people put any effort into it because truthfully I haven't. Two years I have not put any effort into weight loss and you know and that usually would mean me gaining 40 pounds but instead I lost 40. Now imagine if I had exercised like I should be and you know I eat ice cream if I want ice cream.

Researcher: Just not as much?

P4: Yeah. I mean I could eat a shake a day but I don't crave it either. Like but um but like I can't eat a piece of filet mignon which would be fantastic. I will go out to dinner and get filet mignon. It will take me an hour to eat it. Because by the time I cut a piece, chew it, and swallow it and it's delicious the whole time. But Lord knows by the time I am done with that I don't want desert. Like I am exhausted from just trying to eat my meat. Um and I still don't know what the question was again. How has it changed how I view the world? Yeah.

Researcher: What perceptions of yourself have changed or stayed the same since undergoing surgery? I know you said that your body imaged has stayed the same.

P4: Yeah it has but then I thought about my social situations I think I am a little more outgoing. So maybe I do feel better about myself but.

Researcher: A little more confident?

P4: Yeah, yeah. Um I definitely hate exercise. Have always hated to exercise, that hasn't changed. Like I don't think I will ever be super fitness guru. That's just not who I am. Um whether I be huge or average like I'm just like not that kind of person. Um but I feel bad because I just think because of my weight loss just wasn't huge.

Researcher: It was enough though.

P4: I know but I can just imagine how someone's perception changes after they lose 350 pounds. Like that is significant. I would imagine that your whole like. I used to think though. I used to think though that if I were skinny my life would be perfect. Yeah, if I were just skinny. If I could just lose this weight everything would be perfect. Um yeah no. Well since surgery I did separate from my husband. We are back now and I am expecting a baby so life is great but I did go through like crazy time. Like I did go through like I am doing this for me. I am going to make myself fit and I deserve everything to be perfect. Like I thought like everything was now going to fall at my feet and if life wasn't perfect I am going to move on. You know I am the one that separated from him. Like because I just got this sense of I guess being reborn and now I am going to do everything perfectly. Everything is going to be just right. If my husband is not perfect get rid of him. You know if my life is not perfect the way it is move on and find something better. So I did get that sense of thank God I have a really great counselor. (Laughs). I go to her a lot but and I worked through all of my craziness but um. Yeah I got to her every other week. Well the reasons the psychology reasons that I was addicted to eating were all still there. You know I can't get my addiction right now but trust me my addiction just changed. Like you know just moved from food to something else. Like thank God it wasn't drugs but there are plenty of whether it be shopping, whether it be men, whether it be gambling, there is something else that is going to replace food. So yeah I was acting crazy. I was going out like I was a 19 year old. Oh that might fall under that social situations. But for like the first six months when my weight was just falling out I was just out. Out partying, out at the bars, singing karaoke. Like just doing it all again. The way I thought life should be perfect you know. You know the way I always wanted it to be but it never was because I was fat you know? So. Yeah it's good now. I found a really good counselor. (Laughs).

Researcher: That is important.

P4: Yeah it is.

Researcher: In what ways do you feel your identity has changed since undergoing surgery?

P4: Um. My identity. I went through a couple of identities the past 2 years. The crazy rebellious more social outgoing, dangerous. The crazy dangerous you know? I think I am back to who I was. But I just think I always figured that my sister I was her fat sister. You know? I was you can look at my friends they are all stick Barbie dolls and I was the fat one. You know? And now I am hoping that I am not that fat one anymore. But of course when I look at it I am still the fat one. You know I am still the fat sister I have a skinny sister. I am the fast sister, you know? Um so I will always be that to myself. I don't think any like unless I was a super stick Barbie doll. I am always going to be the fat one in my head. But I think out there, not so much. Like I think I blend in better. Like I am more average now. Physically I blend in better. You know? So that is good. That is good. I am okay with blending in. I was just not ok with being the fat one.

Researcher: Does that bother you in your relationship with your sister?

P4: Heather who can drink a milkshake a day and never gain a pound. Yeah, I have hated that. You know. She used to cry about not being able to gain weight. Yeah that really sucked. Um yeah and the day she told me it was hilarious. I was teaching and I had not eaten. I missed lunch.

Like teaching is crazy. I missed lunch and after work they had a party for someone with a cake. And let me remind you that I had not eaten all day. Had a piece of cake with my sister in the classroom and I am like I am still freakn' hungry and I am like I need another piece of cake. And she turned around said what are you going to keep blowing up, how big do you want to get. Which is a horrible thing to say but she is so skinny like she didn't understand.

Researcher: So she can't empathize with you at all.

P4: No, no. But I still make fun of her for saying it so.

Researcher: I would think that it would be hard to have a sister that cannot put herself in your shoes like that and you can't put yourself in her shoes either.

P4: No. It's not easy and we don't need to talk about it 24/7. I don't need my sister to tell me to lose weight 24/7. I am like trust me I put enough pressure on myself. But they don't get it. She just doesn't get it. She is starting to get it now. Yeah she is getting a little belly on her. Yeah it's hilarious because she thinks she is huge and only because she has a tiny little belly on her. But I am kind of glad that her body is not doing exactly what she thought it should do. But if you asked her she would list the thousand things wrong with her body too so.

Researcher: It's all in perception, how you see yourself.

P4: Yep. Yep. That's hard.

Researcher: Did you anticipate changes in how you would view yourself after undergoing surgery? If so, what did you anticipate?

P4: I tried to be realistic but I had a secret hope that I was going to be super thin and think I was fabulous. Which didn't happen. I mean I kind of knew that wasn't going to happen but I did sure have that hope. That it was just everything that I was still young enough that everything was just going to bounce back. Yeah it didn't. Well my doctor was realistic. Well I mean other than telling me I was going to wear a bikini. I mean I could wear a bikini physically. They actually do make bikinis in my size. So I could. I just don't want to. I mean that wouldn't be a good thing that would be in public. No, I mean I do think I wanted to be a little smaller than I am. But that is my fault. I am just not putting the effort in so.

Researcher: You did lose 40 pounds.

P4: With no effort. You know what I am saying. So I think that takes away some sense of accomplishment. I think if I worked like another person you are going to interview works so hard. She has got to have such a great feeling of accomplishment. Yeah there is like a fitness boot camp that my doctor offers. She goes every Saturday morning works out like she is in an army boot camp. Like God bless like I'm I didn't do that. I paid money to put an appetite suppressant like I paid somebody to put self control, physical self control on me. Like that doesn't have the same sense of accomplishment as if I had to make myself get up every morning and workout. You know like I had to actually. But I failed at that. I have done that so many

times. Jenny Craig, weight watchers, nutra system. I have done them all. And it wasn't about accomplishment anymore. It was about let's just get it done . You know I can still do those things if I need to feel that sense of accomplishment. I can still go to the gym and I can still. But at least now I am healthy. At least now I know I will never weigh 300 pounds. I couldn't say that before. The rate I was going, there probably could be a day where I could of weighed 300 pounds, you know? So I know now that well now that I am pregnant I am probably going to get up there again but that is okay that is good weight. (Laughs). But I just know that I am never going to be 200 pounds again. That is a huge relief. You know am I going to be 120? Well that is up to me. If I need to feel that sense of accomplishment and work at it I could maybe be 130 pounds. But I am 170 and not anymore I am 170 something now but it's a huge relief knowing that I just can't back there.

Researcher: Being out of the 200's?

P4: Well I have been out of it before but it has always been the fear that I was going to go back. And this took all of that away. I can't go back. That is good. You know so. That is a nice relief.

CURRICULUM VITAE

Denise E. Hall, LCSW

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EDUCATION

Walden University, Minneapolis, MN Projected date of graduation November 2009
Ph.D. in Clinical Psychology

Washburn University, **Topeka, KS 2001**
Masters in Social Works, MSW

Washburn University, Topeka, KS 1998
Bachelors in Social Work, BSW

EXPERIENCE

July 2003 – Present

Licensed Clinical Social Worker/ Doctorate Student Intern – Newport News, VARock Landing Psychological Group

Large private practice psychotherapy group
Independent contractor
Provide a range of psychological services including psychosocial assessments for diagnosis and treatment to a diverse outpatient population.
Conduct bariatric psychological assessments for clients seeking bariatric surgery.
Practicum student from 6/07 to 11/07 and Internship student from 12/07-11/08: Administering psychological assessments, scoring, interpreting assessment tools, and report writing under the supervision of a Licensed Clinical Psychologist. Providing psychotherapy services to children, adolescents, adults, and families.

May 2002-June 2003

Licensed Behavioral Health Clinician – Westchester, IL

Resurrection Behavioral Health at ProCare

Diane Garner- (708) 681-2325

Community outpatient mental health center
Provide a wide range of mental health services including psychosocial assessments for diagnosis and treatment to children, adolescents, adults, and families.
Conduct groups for adolescents, children, adults, and seniors.
Provide therapeutic and educational services for children placed at an alternative high school.

June 2001-February 2002

Therapist- Roeland Park, KS
Intensive Family Counseling
Jennifer Harper, LSCSW- (913) 722-0039

Non-profit community based in home therapy provider
Provide intensive in home therapy services to individuals and families.
Implement Functional Family Therapy with youth and their families in order to address truancy, behavior change, parenting skills, and communication skills with youth and their families to reduce the risk of juvenile offenders re-offending in the future ad to enhance family relationships.
Assist individuals who are receiving cash assistance from the state of Kansas by providing job coaching, counseling services and other services as indicated by the individual's needs.

September 2001-February 2002
Group facilitator – Mission, KS
Johnson County Mental Health Center
Gretchen Eisentrager, LSCSW- (913) 831-2550
Community outpatient mental health center
Facilitate after school groups for children and adolescents who are receiving case management services.
Social skills group
Home work group

August 1997-June 2001
Social Work Intern (1997-1998) Social Worker (1998-2001)- Oskaloosa, KS
Social and Rehabilitative Services
Jan Knoll, LMSW – (785) 484-2689

State social services agency
Child protective services worker

Investigate and assess reports of child abuse/neglect and children in need of care in accordance with state law and agency policy.

Develop family based assessments, provide services for families in need, monitor foster care, family preservation, and adoption cases.

Participate in ongoing training, team meetings, and conferences.

August 2000-May 2001

School Social Work Intern, Oskaloosa, KS

Oskaloosa Elementary School

Robin Cooper-Cornejo, LMSW- (913) 757-4500

Elementary school

Pre-kindergarten through 5th grade

Facilitate groups for peer mediation, pre-school class, and several small groups.

Lead pre-school through fifth grade classroom guidance classes.

Meet with individual students to address their therapeutic, school, social, and home domain needs.

Resource acquisition and advocacy services for individual students and their families.

Participate as a member of the school's BRAKE team which identifies children who require special education services or accommodations.

Conduct student interviews, social histories, and assessments.

PRESENTATIONS

"Raising a Child with Attention Deficit Hyperactivity Disorder" Burbank Elementary School, May 2004

"Services for Children with Attention Deficit Hyperactivity Disorder" Carver Elementary School, October 2005

LICENSURE

Licensed Clinical Social Worker (LCSW)- State of Virginia, #0904005611, expires 6/30/11

MEMBERSHIPS

American Psychological Association (APA) student affiliate member

National Association of Social Workers (NASW)

TRAINING

Child Abuse and Maltreatment Mandated reporter training
Functional Family Therapy (FFT)
Assessing and Treating Victims of Sexual Abuse
Standard First Aid
Adult CPR
Asperger's Disorder and Autism
Disruptive Behavior Disorders in Children and Adolescents
Play Therapy
Building Family Foundations
Stress Management
Child Abuse and Neglect
Social Workers in Court
Team Response to Child Abuse Investigations
Child Development
Family-Based Treatment Strategies
Anxiety in children
Working with Oppositional Defiant and Passive Aggressive Students
Bipolar Disorder in Teens
ADHD: A multi-systems approach

ASSESSMENT/ TESTING SKILLS

Wechsler Intelligence Scale for Children-4th Edition (WISC IV)
Wechsler Individual Achievement Test (WIAT-II)
Wechsler Adult Intelligence Scale -3rd Edition (WAIS-III)
Wechsler Abbreviated Scale of Intelligence (WASI)
Wide Range Achievement Test-4th Edition (WRAT-IV)
Behavioral Assessment System for Children-2 (BASC-2)
Minnesota Multiphasic Personality Inventory-Second Edition (MMPI-2)
Minnesota Multiphasic Personality Inventory-Adolescent Edition (MMPI-A)
Personality Assessment Inventory (PAI)
Progressive Coloured Matrices (RAVEN)
Bender Visual Motor Gestalt

Neurobehavioral Cognitive Status Examination (COGNISTAT)
Anna Thompson story from the Logical Memory Subtest
Children's Apperception Test (CAT)
Thematic Apperception Test (TAT)
Beck Depression Inventory (BDI)
Brief Symptom Inventory (BSI)
House-Tree-Person (H-T-P)
NEO Personality Inventory
Children's Depression Inventory (CDI)
Skillstreaming
Play Therapy
Behavior Rating Inventory of Executive Functions(BRIEF)
Mental Status Exam

COURSEWORK

Psychological Statistics (2 courses)
Ethics and Standards of Professional Practice
Abnormal Psychology
Professional Development
Psychology of Personality
Developmental Psychology
Cognitive Psychology
Psychological Assessment: (Personality & social/emotional functioning)
Advanced Psychological Testing
Foundations of Counseling Theory
History and Systems of Psychology
Psychology of Learning and Memory
Developmental Psychology
Psychopharmacology
Biopsychology
Psychological Assessment: Cognitive
Tests and Measurements
Research Design
Advanced Psychopathology
Multicultural Counseling
Qualitative Analysis
Social Psychology
Psychology and Social Change
Child Psychology
Human Behavior (2 courses)
Foundations of Social Policy
Quantitative Research
Qualitative Research
Fundamentals of Social Work Practice
Clinical Assessment/Diagnosis
Mental Health and the Law
Social Work Practice in Schools

REFERENCES

Diane Garner, Licensed Professional Counselor. Supervisor at Resurrection Behavioral Health at ProCare. (708) 681-2325.
Susan Buss, Licensed Clinical Social Worker. Clinical Supervisor for clinical social work license. (708) 642-7020.

Jennifer Harper, Licensed Specialized Clinical Social Worker. Supervisor at Intensive Family Counseling. (913) 722-0039.

Dr. Paige Krabill, Ph.D. Instructor for Cognitive Psychological Assessment and Advanced Psychological Testing. pkrabill@waldenu.edu. (330) 559-7234.

Dr. Ronald Kidd, Ph.D., Licensed Clinical Psychologist. Supervisor for internship at Rock Landing Psychological Group. (757) 873-1736.