EXPLORING INDIVIDUAL EXPERIENCES OF PREPAREDNESS FOR BARIATRIC SURGERY

Rachael Noble

Submitted in accordance with the requirements for the degree of
Doctor of Clinical Psychology (D. Clin. Psychol.)

The University of Leeds
Academic Unit of Psychiatry and Behavioural Sciences
School of Medicine

August 2012

ACKNOWLEDGEMENTS

Firstly, I would like to thank Professor Andrew Hill and Dr Sylvie Collins for supervising this research project. I have appreciated your input, guidance and support throughout the process. I would like to express my thanks to all the participants who gave up their time to be interviewed or to complete the questionnaire. It is your involvement in this research that made it possible. To the participants who allowed me to interview them, thank you so much for sharing your experiences with me. Thank you to the support group facilitators for helping me to develop both the interview schedule and the questionnaire. Thank you to Kate Parkes for your feedback on the content of the questionnaire. Thank you to everyone from Weight Loss Surgery information and support (WLSinfo) and British Obesity Surgery Patient Association (BOSPA) who helped with the recruitment process. Thank you to Sheila Youngson for supporting me through the latter stages of the research.

Finally, I would like to thank my family and friends for your encouragement and support throughout both the research process and the entire Clinical Psychology training. I am extremely grateful for all that you have done for me.

ABSTRACT

Introduction: Obesity is associated with an increase in morbidity and mortality. Over the past 30 years the rate of obesity has been rising in almost all countries. The number of weight loss surgery procedures has also increased in England in recent years. Research into the psychological impact of weight loss surgery has found positive outcomes (e.g. reduced emotional distress and depression) as well as tensions (e.g. loss of identity and feeling vulnerable). Despite research into preparation for generic surgery, there is a gap in the literature on preparation for weight loss surgery patients. The present study was designed firstly to examine what preparation a UK sample of weight loss surgery patients have received, and secondly to explore the individual experiences of the weight loss surgery journey.

Method: A mixed methods approach was used. An online questionnaire developed for this study was completed by 148 participants who have had weight loss surgery. A sample of seven adults were recruited from a weight loss surgery support group and participants were interviewed using a semi-structured interview schedule. Interviews were transcribed and analysed using Interpretative Phenomenological Analysis.

Results: Participants reported receiving information on; the different parts of the weight loss surgery process, changes in diet, eating behaviour, and physical changes. Participants reported that information was lacking on relationship and psychological changes. Five master themes and 16 super-ordinate themes emerged following the group analysis of the interviews. Participants reflected on their *lead up to surgery* and their experience of *preparing for surgery*. Participants tried to make sense of their *relationship with food* and their emotional attachment to it. They reflected on their experience of *changing relationships* and *identity* post-surgery. Participants highlighted the value of support groups and the internet in preparing them for surgery, particularly communicating with individuals who have had weight loss surgery.

Discussion: Preparation for weight loss surgery is an important part of the process. More preparation is needed for the psychological changes, emotional challenges, and adjustments experienced throughout the journey. A group intervention is recommended. This would be efficient and cost effective. It would provide opportunities for social inclusion and peer support.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1: LITERATURE REVIEW

Introduction

This chapter will begin with defining the term 'obesity'. I will discuss the epidemiology of obesity and consider the possible causes of increasing rates of obesity. I will then outline the literature on the relationship between obesity and mental health. I will outline the most common surgical treatments and the psychological impact of such treatments. I will then review the literature on preparation for generic surgery and then focus more specifically on the literature on preparation for bariatric surgery. I will conclude this chapter by introducing the present research.

Defining obesity

The terms overweight and obesity are generally defined as an accumulation of excessive body fat and measured by using Body Mass Index (BMI). This is calculated by dividing a person's weight (in kilograms) by the square of their height (in metres). A person with a BMI of ≥ 30 is considered obese. A person with a BMI of ≥ 25 is considered overweight (World Health Organisation (WHO), 2000).

Epidemiology of obesity

Over the past 30 years the rate of obesity has been rising in almost all countries (James, 2008). In 2002, 358 million people worldwide were categorised as obese. In 2007 this figure increased to 523 million and is anticipated to reach 704 million by 2015 (International Obesity Taskforce (IOTF), 2007). In 1997, the WHO Expert Consultation on obesity accepted that there was a widespread public health problem, resulting in a commitment to prevent and manage the global epidemic. The findings of the consultation showed that if no action were taken, 60% of men and 40% of women worldwide would be clinically obese by 2050 (WHO, 2000).

The prevalence of obesity varies widely between countries, and between regions within countries (Seidell & Flegal, 1997). In Europe, the prevalence of obesity in adult women ranges from 6.2% to 36.5%, and in men from 4.0% to 28.3% of the population (Berghofer, Pischon, Reinhold, Apovian, Sharma & Willich, 2008). Considerable geographic variation is reported with prevalence rates in central, eastern, and southern Europe being higher than those in western and northern Europe.

The latest available data gathered by National Obesity Observatory (Dent, Chrisopoulos, Mulhall & Ridler, 2010) shows that in the UK, Scotland has the highest rate of obesity with 27%

of the total adult population categorised as obese, followed by England with 24.5%, Northern Ireland with 24% and finally Wales with 21%. Epidemiological surveys suggest that the prevalence of overweight and obesity has trebled in England over the past 25 years. Eight percent of women and 6% of men were categorised as obese in 1980, in 2010 this had increased to 25% of men and women (Dent, Chrisopoulos, Mulhall & Ridler, 2010). By 2015, the Foresight report estimates that 36% of males and 28% of females (aged between 21 and 60) will be obese. By 2025 it is estimated that these figures will increase to 47% of men and 36% of women (DoH, 2007).

The spiralling levels of obesity are leading to increased costs to the economy. In England, the direct NHS costs of treating overweight and obesity and related morbidity increased from £479.3 million in 1998 to £4.2 billion in 2007 (DoH, 2007). Indirect costs, for example, loss of productivity, ranged between £2.6 billion and £15.8 billion (National Audit Office (NAO), 2001; Butland, Jebb, Kopelman, McPherson, Thomas, Mardell & Parry, 2007). The NHS costs attributable to overweight and obesity are expected to double to £10 billion per year by 2050 and without action, the wider costs to society and business are estimated to cost the UK £49.9 billion per year (DoH, 2007). This increasing financial burden is concerning because it is a drain on limited available resources and diverts investment away from other areas. The Foresight report (DoH, 2007) recommends a societal approach involving personal, family, community and national strategies to help prevent and reduce current obesity levels.

Overall, obesity is a global health problem and is associated with an increase in morbidity and mortality (Greenberg, 2006; Batty, Shipley, Jarrett, Breeze, Marmot & Smith, 2006). Some of the health risks associated with obesity include Type 2 diabetes, cardiovascular disease, some forms of cancer and stroke (National Institute of Clinical Excellence (NICE), 2006). Prevention is emphasised as a way of addressing the problem, for example lifestyle changes, education, support and identifying potential barriers to change. In addition to the increased risk of developing a range of health problems, overweight and obesity have social and psychological consequences such as discrimination, social exclusion, reduced quality of life, depression, low self-esteem and confidence (Gatineau & Dent, 2011).

Causes of increasing rates of obesity

Biology

There is evidence that biological factors influence weight gain. Research has identified some specific genes associated with obesity, for example the FTO gene may contribute to an increased risk of weight gain (DoH, 2007). Adipose tissue plays a central role in appetite regulation by

releasing the hormone leptin. Leptin is involved in the control of energy intake and when body weight is low, leptin levels fall, increasing hunger and food-seeking behaviours (Bloom, 2007). The effectiveness of the appetite control system varies from person to person. Individuals who have a less effective appetite control system may be more susceptible to obesity, particularly in the modern world, where there is excess energy-dense, low-cost food (Rolls, 2007). Research on brain activity using functional magnetic resonance imaging (fMRI) has shown that sensory factors and the availability of food can increase appetite to a level that overwhelms conscious control mechanisms, leading to 'hedonic' hunger (Rolls, 2007).

Although there is a widely held belief that obese people have slower metabolic rates than thin people, research does not support this view. In fact, the evidence supports the opposite. As body weight increases the energy expenditure while resting also increases (Prentice, 2007). This reflects the metabolic costs of maintaining a larger body. Evidence suggests that biological differences between people are not the root cause of obesity and it is more likely that biological causes interact with behaviour within a cultural, environmental and social framework (DoH, 2007). The rapid increase in the obesity rate has occurred in too short a time for there to have been significant genetic changes, hence this cannot explain the recent rising rate of obesity (WHO, 2000).

Behaviour

It is likely that modern lifestyles have contributed to the rise in obesity, with an increase in motorised transport, sedentary behaviour and foods high in protein and fat. Over recent decades, work related activity has declined while leisure time, dominated by television and other physically inactive behaviours, has increased (WHO, 2000). Wareham (2007) found that weight control was enhanced by reducing sedentary behaviours. Although measuring dietary intake outside of a controlled environment can be difficult, dietary risk factors that can increase the risk of obesity have been identified (Jebb, 2007). The foods identified as high risk include those high in fat and low in fibre, foods that have a high energy density and drinks that are high in sugar. If such foods are consumed in large portions the effects are likely to be magnified.

Organisational behaviours play a central role in influencing the behaviour of individuals. For example, the range of snacks available and the content of vending machines. Other factors influencing behaviour change include the role of different beliefs, overcoming existing habits, the level of perceived control the individual has over their environment and their perceived vulnerability to risk (Maio, Manstead, Verplanken, Stroebe, Abraham, Sheeran, et al., 2007).

Environment

The term 'obesogenic environment' refers to the influence of the environment in determining energy intake and expenditure. It is conducive to the consumption of energy and unfavourable to energy expenditure (Chaput, Doucet & Tremblay, 2012). The term covers a range of factors that influence an individual's ability to live a healthy lifestyle and therefore might contribute to our understanding of the possible causes of the current obesity epidemic. The advance in technology over the past few decades has tended to reduce the physical effort required (Sharpe, Parry, Dubhthaigh & Barter, 2007). In the UK physical activity has declined over the past 30 years and car use has increased (Fox & Hillsden, 2007). Evidence suggests that the environment influences obesity and physical activity levels, but the relationship between the environmental characteristics and overall activity levels remain unclear (Jones, Bentham, Foster, Hillsdon & Panter, 2007). Chaput, Doucet and Tremblay (2012) argue against biological explanation of obesity for most individuals. Rather, they support the view that weight gain is the result of exposure to an obesogenic lifestyle and believe it should be viewed as an adaptation that facilitates body energy storage to re-establish a new homeostatic state.

Psychology

Psychological risk factors may increase the risk of obesity. Individuals who suffer from psychological disorders, such as anxiety, depression and eating disorders, may have more difficulty controlling their food consumption, maintaining a healthy weight, and exercising regularly (Newson & Flint, 2011). Individuals with weight problems often use food as a coping strategy, for example, if they are feeling frustrated, upset, lonely, anxious or stressed. A cycle of mood disturbance, overeating and weight gain has been observed in obese individuals. For example, they may use food to help them cope with distress. Such comfort eating may result in a short-term reduction in distressed mood, and weight gain following this overeating can contribute to a negative cycle of behaviour.

Restraint theory (Ogden, 2010) suggests that another factor contributing to obesity may be dieting, which could be a cause as well as a consequence. The process of restricting may make food appear more attractive and the individual become preoccupied with eating. According to this theory, dieting may contribute to the maintenance of obesity rather than reducing it. Other studies have shown that dieting using the Weight Watchers™ program is more effective than a self-help program (Heshka, Anderson, Atkinson, Greenway, Hill, Phinney, et al., 2003). This may indicate that the support provided in weekly meetings is central to the facilitation of weight loss. The sample in this study consisted of people who completed the

program and may therefore be an overestimation. The evidence on the long-term maintenance of weight loss is insufficient to enable conclusions to be drawn (NICE, 2006).

Obesity and mental health

The evidence suggests there is a complex relationship between obesity and poor mental health in adults. Some studies show that obesity can lead to mental health disorders, others suggest that people with mental health disorders are more likely to develop obesity, whilst others have found no relationship. Some argue that physical illness and mobility restrictions associated with obesity may have a direct impact on mental health, possibly leading to depression, eating disorders, low self-esteem, and distorted body-image (Luppino, de Wit, Bouvy, Stijnen, Cuijpers, Penninx & Zitman, 2010). Some studies have found high rates of depression among patients with type 2 diabetes, which is common among patients with obesity (Kalarchian, Marcus, Levine, Courcoulas, Pilkonis, Ringham, et al., 2007). A weak but positive association between obesity and anxiety disorders was found in a recent systematic review and meta-analysis (Gariepy, Nitka & Schmitz, 2010). Individuals seeking treatment for obesity report more mood, anxiety and substance disorders than those in the wider community. For example, a lifetime prevalence of mood, anxiety and substance disorders of 45.5%, 37.5% and 32.6% among bariatric (weight loss) surgery candidates can be compared to estimates of 20.8%, 28.8% and 14.6% respectively in a non obese population (Kessler, Berglund, Demler, Jin, Merikangas & Walters, 2005).

Evidence suggests there is an association between obesity and depression (Atlantis & Baker, 2008; Luppino, de Wit, Bouvy, Stijnen, Cuijpers, Penninxn & Zitman, 2010). However, the cross-sectional evidence failed to provide detailed insight into the direction of the association. It could be argued that obesity, through the negative impact on self-image or somatic consequences, results in the development of depression or that individuals with depression develop obesity over time through unhealthy lifestyles or dysregulated stress systems (Stunkard, Faith & Allison, 2003; Bornstein, Schuppenies, Wong & Licinio, 2006). A recent systematic review and meta-analysis of longitudinal studies was carried out by Luppino, de Wit, Bouvy, Stijnen, Cuijpers, Penninx, and Zitman (2010) to examine the longitudinal evidence of the association between obesity and depression. The authors found a bidirectional association whereby obesity increased the risk of depression, and depression was predictive of developing obesity.

Bariatric surgery candidates also have lower self-esteem and higher depression scores than less obese people seeking behavioural and pharmacological weight loss interventions. For

example, Greenberg, Perna, Kaplan and Sullivan (2005) found a high incidence of depression, low quality of life, eating disorders and negative body-image in severely obese patients. In another study nearly two thirds of people seeking bariatric surgery had a psychiatric diagnosis, depression being the most common. Most patients reported feeling depressed about the negative impact obesity had on their lives, for example, finances, social life, health, mobility and functioning (Vaidya, 2006).

Research suggests that women are more at risk of obesity and common mental health disorders than men. Some studies show a positive association between obesity and common mental health disorders for women and a negative relationship for men (Luppino, de Wit, Bouvy, Stijnen, Cuijpers, Penninx & Zitman, 2010; Markowitz, Friedman & Arent, 2008). There is some evidence that women experience more dissatisfaction with their body shape and weight than men and such dissatisfaction increases with BMI (Grilo, Wilfley, Brownell & Rodin, 1994). In many parts of the world being slim is considered a beauty ideal that is reinforced by the media. Obesity may therefore increase body dissatisfaction and lower self-esteem, both of which are risk factors for depression (Fabricatore & Wadden, 2003). It seems that women are under more pressure to be slim and experience more stigma and discrimination related to obesity (Scott, Bruffaerts, Simon, Alonso, Angermeyer, de Girolamo, et al., 2008). Roehling (1999) found that obese individuals, particularly women, experience discrimination in employment settings including selection, placement, promotion and discipline.

In summary, the research indicates that obesity not only influences people's physical health, but also their psychological state. Research highlights the association between obesity and depression, anxiety, self-esteem and body dissatisfaction. Evidence suggests that depression and obesity interact reciprocally. Research indicates that obese women are at greater risk than obese men of depression and related complications (Fabricatore & Wadden, 2003).

Surgical interventions for obesity

Many people try and manage their weight and weight loss on their own. Some people follow weight loss management programs, for example a low energy diet combined with exercise. There are a variety of weight loss groups available, for example Slimming World™ (2012), Weight Watchers™ (2012), weight loss camps and online support forums as well as government initiatives such as 'Change4Life' which uses education and information to promote living a healthy lifestyle. Medication such as Orlistat may be used in conjunction with the above to reduce the amount of fat absorbed by the body to facilitate weight loss.

Bariatric surgery is a treatment option for some. Bariatric surgery is a generic term for weight loss surgery. Guidelines recommend bariatric surgery for individuals with a BMI >40, or >35 if they have complications associated with obesity, for example diabetes or heart failure (NICE, 2006). NICE also state that when surgery is being considered, the patient should have access to psychological support before and after surgery (NICE, 2006).

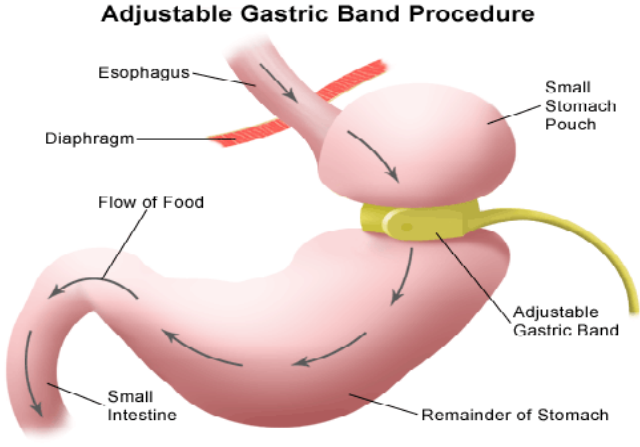
The number of NHS commissioned bariatric surgery procedures has increased in England from about 470 in 2003/04 to over 6,500 in 2009/10. In England this figure is equivalent to around 1% of adults with morbid obesity. More women have obesity surgery (5,047 in 2009/10) than men (1,473 in 2009/10). Obesity surgery is undertaken most frequently in people aged 25-39 years (Dent, Chrisopoulos, Mulhall & Ridler, 2010) and is increasingly available and undertaken via private healthcare.

History of bariatric surgery

Bariatric surgery has continued to evolve since 1954 when the first bariatric procedure was performed by Kremen (Buchwald & Buchwald, 2002). The malabsorptive procedure, then known as the jejunoileal bypass, involved joining together the upper and lower regions of the small intestine. This had the effect of decreasing the amount of food processed so fewer calories were absorbed resulting in weight loss. Common side effects included gas-bloat syndrome, diarrhoea, electrolyte imbalance and hepatic fibrosis.

In the 1960's, combined restrictive and malabsorptive procedures were performed, becoming known as the gastric bypass (Mason & Ito, 1967). Vertical banded gastroplasty was a procedure in which surgical staples were used across the upper stomach to create a partition, thus reducing food intake and digestion which leads to weight loss. Following complications, modifications were made and elastic bands were used instead of staples, however, these stretched over time and became less effective. This procedure has been modified over time (Alden, 1977) and currently in the UK, the three most commonly performed procedures are adjustable gastric banding, gastric bypass and sleeve gastrectomy (Dent, Chrisopoulos, Mulhall & Ridler, 2010).

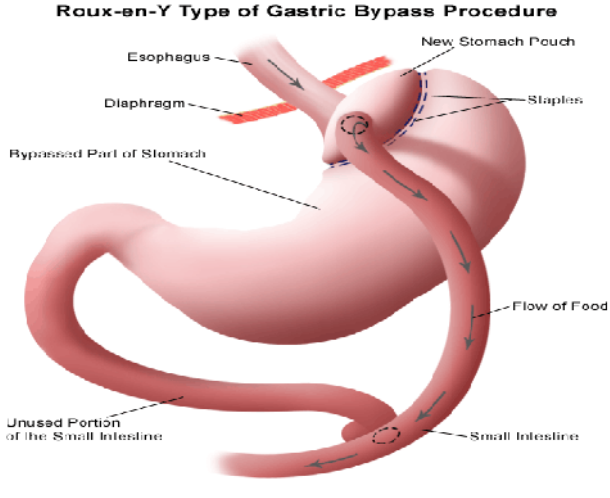
Gastric banding involves placing an adjustable silicone band around the upper stomach creating a small pouch above the band and the space between the pouch and the rest of the stomach is narrowed (Figure 1). This restricts the amount of food that can be eaten. The size of the outlet can be adjusted by removing or injecting saline via a portal placed beneath the skin that connects to the band (Dent, Chrisopoulos, Mulhall & Ridler, 2010).



(Source: Yale Medical Group)

Figure 1: A diagram illustrating the adjustable gastric band procedure

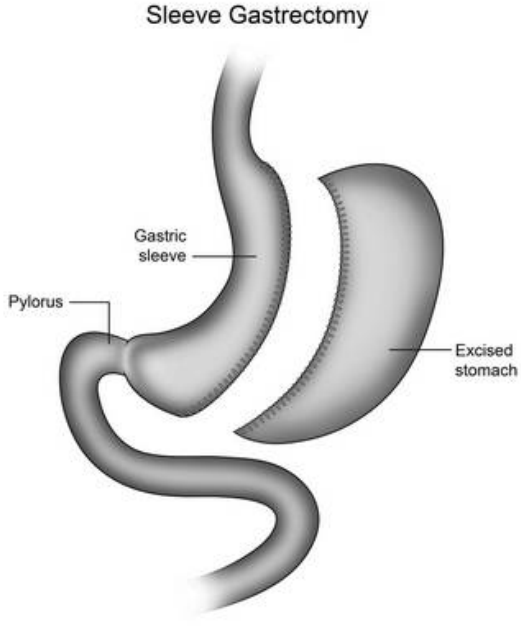
The gastric bypass involves creating a small pouch from the stomach (Figure 2). The pouch remains connected to the oesophagus at one end and is connected to the small intestine at the other end, so it bypasses the main stomach and the initial loop of the small intestine. Such change has an effect on intestinal absorption and increases the risk of nutritional deficiencies (Dent, Chrisopoulos, Mulhall & Ridler, 2010).



(Source: Yale Medical Group)

Figure 2: A diagram illustrating the roux-en-Y gastric bypass procedure

The sleeve gastrectomy (Figure 3) involves a vertical division of the stomach to reduce the size by approximately 75%. Stomach function and digestion remain the same as the pyloric valve at the base of the stomach is left intact. The procedure cannot be reversed. In some cases it may be used as a first stage operation and later progressed to a gastric bypass or duodenal switch. For example if the patient is very obese and a single stage procedure would carry high risks or be technically difficult to perform (Dent, Chrisopoulos, Mulhall & Ridler, 2010).



(Source: Total Weight Solutions)

Figure 3: A diagram illustrating the sleeve gastrectomy procedure

These surgical procedures have excellent outcomes when measured by weight loss, with most patients losing more than 50% of their excess weight. In addition to the dramatic weight loss, another outcome of bariatric surgery is that related co-morbidities, such as diabetes and hypertension, are reduced or reversed (Buchwald & Buchwald, 2002; Salameh, 2006), making it a very cost-effective solution. The long-term mortality rate of gastric bypass patients has been shown to be reduced by up to 40% (Adams, Gress, Smith, Halverson, Simper, Rosamond, et al., 2007). For people with BMI >30 bariatric surgery has better outcomes than non-surgical treatment methods when measured by weight loss. Weight loss is more likely to be maintained following bariatric surgery (Shaw, O'Rourke, Del Mar & Kenardy, 2009; Picot, Jones, Colquitt, Gospodarevskaya, Loveman, Baxter & Clegg, 2009)

However, studies have reported that weight loss stabilises between 18 and 24 months post-surgery and there appears to be a trend to slowly begin to regain weight in the third year after surgery. Failure to maintain weight loss at 10 years post bariatric surgery was reported in 10-25% of patients who had surgery (Collazo-Clavell, Clark, McAlpine & Jensen, 2006). Complications are common and surgery-related deaths have been reported to occur within one month in 2% of patients (Adams, Gress, Smith, Halverson, Simper, Rosamond, et al., 2007). Long-term complications of gastric bypass include anaemia and osteoporosis, as the majority of the calcium and iron absorption takes place in the bypassed portion of the intestine. Lifelong mineral supplements are therefore mandatory. Other adverse effects following surgery include band slippage and erosion, pulmonary embolism, pneumonia and anastomosis leakage (Dent, Chrisopoulos, Mulhall & Ridler, 2010; Shaw, O'Rourke, Del Mar & Kenardy, 2009).

After having bariatric surgery, patients follow a typical recovery pathway involving a fluid only diet to begin with, followed by small amounts of pureed food for a few weeks, dependent on the recovery rate of the individual. For the next few months small amounts of soft, mashed food may be consumed, after which the patient can move on to eat small amounts of normal textured food. Throughout this process, patients experience physical feedback in the form of bloating, dumping syndrome, vomiting, diarrhoea and constipation. Although unpleasant, this feedback is an important part of recovery as it helps patients to learn and adapt to new eating patterns. Patients who have had a gastric band will return to hospital to have their band inflated, following which they will be required to follow a fluid only diet for three days and then progress to a soft food diet for the next three days before reverting to eating normal textured food again. The fact that people differentially adapt to the variety of post-surgery changes, for example new eating patterns, different physical appearance and new physical symptoms, leads to an interest in the psychological aspects of this treatment.

Psychological impact of bariatric surgery

Until relatively recently, the majority of outcome studies measured the success of bariatric surgery on the basis of weight loss and have paid little attention to psychological variables. A systematic review of the literature carried out by Vallis and Ross (1993) found that for many people, bariatric surgery was associated with improved psychosocial functioning and quality of life. Similarly, Herpertz, Kielmann, Wolf, Langkafel, Senf, and Hebebrand (2003) carried out a systematic review to investigate whether obesity surgery improved psychosocial functioning and found that for the majority of people, improvements were evident in quality of life, mental health and psychosocial status. They also found improvements in physical health status following

surgery as characterised by improved educational and occupational status and fewer sick days. In support of this Karlsson, Sjostrom and Sullivan (1998) found that following surgery, patients experienced improvements in health related quality of life, measured in terms of mood disorders, health perceptions, social interaction and mental well-being. In addition, Holzwarth, Huber, Majkrazak and Tareen (2002) reported positive results for psychological morbidity measured by a decrease in antidepressant use following surgery, and Vallis, Butler, Perey, Veldhuyzen, Konok and MacDonald (2001) reported a reduction in emotional distress and depression.

The positive life changes reported following surgery include; increased activities, improvements in physical health, ability to envision a future, reduction in depression, increase in physical attractiveness, improved parenting ability and occupational status. Some evidence suggests that gastric bypass surgery improves depression in addition to weight loss both immediately after surgery and at 6 month follow-up (Bocchieri, Meana & Fisher, 2002). Similarly, Dymek, le Grange, Neven and Alverdy (2001) found Beck Depression Inventory scores improved significantly from pre-treatment (14.6) to post-treatment (8.2) in patients undergoing gastric bypass and that mood continued to improve among the two thirds of patients who completed 6 month follow-up evaluations (2.7).

However, psychological outcomes of weight loss surgery are not exclusively positive. Ogden, Clementi, Aylwin and Patel (2005) found that patients reported negative experiences following weight loss surgery, such as nausea and fullness, as well as positive experiences, such as improvements in health status, energy and confidence. Some individuals do not respond positively to surgery and pre-existing psychological problems may be exacerbated by surgery. Evidence suggests that patients with binge eating problems report significantly more psychiatric symptoms and less satisfaction with weight loss than non binge eating weight loss surgery patients (Guisado & Vaz Leal, 2003). Some bariatric surgery candidates can have unrealistic expectations about how surgery will change their life which can lead to disappointment (British Psychological Society (BPS), 2011). Weight loss may take longer than expected, frustration can lead to reduced motivation and difficulties adhering to post-operative diet. Individuals who had problems with emotional eating prior to surgery may resume similar behaviours after surgery, resulting in weight regain. Through the use of interviews and focus groups, Bocchieri, Meana and Fisher (2002) also found that dramatic weight loss can lead to both positive and negative changes. Some post-surgical changes posed difficult challenges that generated tension in patients' lives such as loss of identity, the challenge of confronting the unknown, changes in relationships, new issues relating to appearance, learning coping strategies and feeling vulnerable. Kinzl, Trefalt, Fiala, Hotter, Biebl, and Aigner, (2001) interviewed 82 female

patients pre-operatively and at least one year post-operatively. They found that half of the patients viewed their physical appearance following weight loss as negative due to physical flaws such as wrinkled skin and sagging breasts, which is likely to have a psychological impact. After losing weight, some people feel uncomfortable with their new body-image, which may result in issues within their relationships and intimacy.

Length of time post weight loss surgery is relevant to understanding psychological outcomes. In a systematic review of psychosocial outcomes of surgery for morbid obesity, Bocchieri, Meana and Fisher (2002) found that two to three years after obesity surgery, mental health gains dissipate. This time frame corresponds to the period over which weight loss has stabilised, and marks the time at which weight regain may begin. One hypothesis is that patients' expectations that life will dramatically improve following significant weight loss are not met. The realisation that pre-surgical problems such as relationship difficulties and financial issues that continue to exist post-surgery may be difficult to accept (Bocchieri, Meana & Fisher, 2002). Patients who previously attributed their difficulties to obesity may begin to internalise their problems, leading to poor psychological adjustment.

In a qualitative study using Interpretative Phenomenological Analysis (IPA), Ogden, Clementi and Aylwin (2006) found that some people struggled to adjust to the many physical and psychological changes following surgery, for example, initial shock, physical limitations, body shape, body-image, vomiting, heartburn, confidence and relationships with others. It may be that preparation for bariatric surgery can help patients to anticipate such changes and therefore make adjustments. Giusti, De Lucia, Di Vetta, Calmes, Heraief, Gaillard, et al., (2004) provided three weekly two hour interactive teaching sessions to 297 bariatric surgery candidates. The teaching aimed to inform patients about: the different surgical options, the advantages and disadvantages of surgery, the eating implications, the psychological implications of weight loss, and to meet patients who have had surgery. The teaching was supported with a booklet prepared by the medical team. They found that following the pre-operative teaching, 9% of the patients decided not to have surgery, 99% of the patients reported that the teaching helped clarify doubts and defined surgical expectations and 15% of patients changed their surgical options following teaching. The authors conclude that pre-operative teaching provided an informed and better patient selection for bariatric surgery and that this preparation was an important factor in the psychological adaptation of patients.

There are difficulties with many of the research studies into the outcomes of bariatric surgery. Although the findings are important to shape our understanding, they should be treated with caution. Evaluating surgical treatment using randomised controlled trials (RCTs) including

a control group is difficult for ethical reasons therefore most comparisons are between different surgical modalities. Retrospective studies can evaluate the prevalence of psychological problems however they fail to provide information about the changes associated with surgery. Research is at risk of selection bias as participants are not representative of everyone seeking obesity surgery. It is likely that those who undergo surgery have been through a specific pathway prior to being accepted for surgery, for example, selected for referral, assessed by a psychiatrist and assessed by a dietitian. When reviewing the existing literature, comparisons between studies can be difficult due to methodological flaws such as high attrition rates, reliance on unstandardised measures, inadequate sample sizes, wide variation in methods of evaluating outcomes and in sample characteristics. It is important to take these difficulties into consideration when reviewing the literature on the psychological impact of bariatric surgery.

Overall, the literature suggests that obesity surgery has a positive impact on psychosocial functioning, quality of life, mental health, psychosocial status, depression, physical health, and occupational status. It is not known if such improvements are maintained as there are insufficient long-term follow-up studies. Some studies have shown that such improvements erode at two years and are associated with weight regain (Bocchieri, Meana & Fisher, 2002). There is some evidence of negative experiences following obesity surgery, for example, existing psychological problems may be exacerbated, feelings of disappointment, feelings of frustration, difficulties adhering to the diet plan, feelings of nausea, loss of identity, relationship changes, feeling vulnerable and feeling uncomfortable with new body-image. A better understanding of the difficulties patients experience following surgery could lead to the development of interventions, such as preparation programs, to further improve outcomes.

Preparation for generic surgery

Although there is a general consensus that psychological preparation for surgery is helpful to patients, such preparation comes in many different forms and the effectiveness of it varies. A lot of the literature available regarding preparation for generic surgery may also be relevant to bariatric surgery patients.

Information

One method is to provide procedural information about what to expect prior to, during and after treatment, as well as sensory information detailing what it will feel like. Johnson and Leventhal (1974) found that providing sensory information in advance about how a gastroscopy would feel reduced levels of distress during a procedure. By providing sensory and procedural information, any mismatch between expected and actual sensations should be reduced, thereby reducing

anxiety and improving recovery (Mathews & Ridgeway, 1984). For some patients, such information is used to inform their decision making about whether to consent to treatment (Ley, 1988). However, this is unlikely to be the primary reason for information seeking as many patients who prefer not to have an active role in making decisions about treatment still seek out and value information (Coulter, 1997). There is some evidence that those who seek information tend to prefer decisions to be made for them by clinicians (Miller, Brody & Summerton, 1988). This could suggest that the information serves a function different than decision making, for example, to increase understanding, to reduce feelings of helplessness, to gain a perceived level of control, or to reduce procedural and outcome anxiety.

The impact of giving information varies greatly between the type of procedure and the patients involved, depending on if they are 'monitors' or 'blunters' (Miller, Brody & Summerton, 1988). 'Monitors' tend to use information to cope with stress in their daily life, and therefore actively seek information about medical problems, whereas 'blunters' tend to avoid relevant information as a way of coping. Providing information to 'blunters' would therefore increase their anxiety and may also have a negative impact on information processing (Wilson, 1981; Ridgeway & Mathews, 1982). The desire for detailed information, as sought by 'monitors' can indicate anxiety, or predict anxiety issues later in the process (Mahler & Kulik, 1991), which in turn can impact on the way the patients process information, as they are more likely to attend selectively to risk factors and recall frightening memories (Williams, Watts, MacLeod & Mathews, 1997). Marteau, Kidd, Cuddeford and Walker (1996) found that a small amount of information can be more effective than a large amount. Therefore, the volume of information provided to the patient must be carefully considered.

Information can be presented to patients in different formats. Although written information can be effective (Ley, 1988), some evidence suggests that information provided face to face is more effective than in a written leaflet (Leigh, Walker & Janaganathan, 1977). This suggests that effectiveness may be influenced by the characteristics of the information giver in addition to the content or quality of the information provided. Modelling, whereby patients learn by watching others, can be a cost-effective way of giving information and can help overcome difficulties arising as a result of cognitive development or language barriers. Anderson (1987) found that modelling reduced levels of post-operative hypertension and improved recovery from coronary artery bypass graft surgery. Similarly, Kulik and Mahler (1987) found that cardiac surgery patients who had a post-operative roommate showed improved recovery compared to those with a pre-operative roommate. One explanation for this finding could be that the post-operative roommate helped them anticipate a positive outcome. However, other studies have

shown similar benefits with a non-surgical roommate suggesting that peer support may be more important than modelling (Kulik, Moore & Mahler, 1993).

Behavioural instruction (including relaxation)

Behavioural instruction involves informing patients of what they should do behaviourally to facilitate a procedure or their recovery from a procedure. This may involve relaxation, adherence to medication, or following a diet plan. Some studies have shown that relaxation training increases hormonal stress response to surgery (Wilson, 1981; Manyande, Chayen, Priyakumar, Smith, Hayes, Higgins, et al., 1992). Similarly, Salmon, Evans and Humphrey (1986) found that reassured patients were less anxious pre-operatively, but they reacted to surgery with a greater stress response measured by a hormonal measure (urinary cortisol excretion). Pre-operative relaxation training can reduce anxiety prior to surgery and relaxed patients can be easier to anaesthetise (Abbott & Abbott, 1995; Williams, Jones, Workhoven & Williams, 1975). Johnston and Vogele (1993) found relaxation training to be effective in the speed of recovery as measured by pain, clinical indices and mood. In terms of improving recovery outcomes, relaxation was identified as being highly effective in a meta-analysis by Johnston and Vogele (1993).

On the other hand, whilst patients who undergo relaxation training prior to surgery may be anaesthetised more easily, they may find the challenge of surgery more stressful (Salmon, 2000). One explanation for this apparent increase in stress after surgery for patients who undergo relaxation training is 'work of worry' (Janis, 1958). According to this theory working through a stressor prior to surgery can reduce the stressfulness of surgery. The term 'work of worry' was coined by Janis (1958) to describe the process of mental preparation or active thinking to prepare for surgery and thus improve the rate of recovery and reduce the negative impact. This theory suggests that relaxation would interfere with the natural preparatory process and therefore the impact of surgery would be greater.

There are methodological limitations in the evidence showing benefits of reassurance or relaxation. The validity of the methods used to measure outcome can be questioned. For example, analgesic intake, length of stay in hospital and self reports of distress are poor indicators of patients' needs and may be more indicative of patients' willingness to complain. Thus, relaxation and reassurance may reduce the likelihood that patients will complain. Relaxation training comes in different forms and levels of intensity. The method of relaxation and the outcome measures used in each study vary, making comparing results of different studies complex and the validity of making such comparisons questionable. People use a

mixture of preparation methods making it difficult to identify which was most effective. Also, different theoretical approaches may interpret the same outcome differently. For example, most researchers view reduced length of stay and reduced use of analgesics as valued outcomes, whereas other researchers may use the same variables as negative outcomes signifying less control over their care.

Comparison between different preparation methods

In 1981, Mathews and Ridgeway carried out a review of the literature comparing the following different types of preparation for surgery; procedural information, sensory information, behavioural instruction, modelling, relaxation and cognitive coping training. They concluded that cognitive coping methods, sensory information and behavioural instructions (including relaxation) have been shown to be the most effective forms of preparation for surgery. They found that patients with high levels of anxiety experienced more complications or slower recovery from surgery than patients with low levels of anxiety. However, there is no clear causal link so perhaps physiologically vulnerable people have a tendency to have higher levels of anxiety and be slower to recover. Stressful conditions associated with surgery can impact on inhibition or enhancement of pain, rate of blood clotting, resistance to infection and other mechanisms involved in physical recovery of surgery (Mathews & Ridgeway, 1981).

Direct comparisons across studies can be complicated as different researchers use different outcome measures, for example behaviour, clinical ratings, length of stay, medication, mood, pain and physical indices. Evidence gathered in the Mathews and Ridgeway (1981) review shows that preparation for surgery by training in cognitive coping strategies, whereby individuals are encouraged to identify their own concerns and develop a more positive reappraisal of their situation, is probably more effective than information and behavioural instructions. The findings depend on type of surgery. For example, procedures which involve acute pain but are otherwise non-threatening may be helped by provision of sensory information and behavioural instruction.

Given the heterogeneity of data analysed regarding preparation for surgery by Johnston and Vogele (1993) the consistency of results is rather impressive. Using meta-analysis they examined studies of psychological methods of preparing patients for surgery and analysed this in relation to the following eight outcomes; negative affect, pain, pain medication, length of stay in hospital, behavioural recovery, clinical recovery, physiological indices and satisfaction. They found procedural information and behavioural instructions to be effective in improving all eight outcomes. In support of this, Powell, McKee and Bruce (2009) found that participants

undergoing hernia repair surgery were positive about the information and behavioural instruction they received during their health-care pathway. Relaxation was found to be very effective, showing benefits on all outcomes except behavioural recovery. Research on cognitive interventions shows that this type of preparation may have a positive influence on negative affect, pain, pain medication and clinical recovery, but not on physiological indices, behavioural recovery and length of stay. According to the review by Johnston and Vogele (1993), sensory information and hypnotic and emotion-focussed approaches are not very effective. However, Mathews and Ridgeway (1981) found sensory information to be effective. Such differences may be explained by methodological differences in the studies reviewed.

The concept of recovery is often ill-defined in the literature. Recovery is not uni-dimensional and different measures often tap into different dimensions, questioning the validity of the research in this area. The success of different interventions is often constrained by grouping them together for analysis and by the brief descriptions of the intervention sometimes given. Many studies on preparation for surgery are based on an American population and therefore make generalisations from one culture or society to another questionable. Although research has continued to develop in this area, the last systematic review of psychological preparation for surgery was carried out by Johnston and Vogele in 1993. Since this review there have been many changes. For example, the development of bariatric surgery technology, standards of RCTs have improved, and technology has advanced to enable more detailed literature searches. To address this, the Cochrane Collaboration have recently published a protocol detailing plans to review the effects of psychological preparation on post-operative outcomes in adults undergoing elective surgery under general anaesthetic (Powell, Bruce, Johnston, Vogele, Scott, Shehmar & Roberts, 2010). The full report has yet to be published.

It is important to point out that none of the studies on psychological preparation for surgery outlined above include bariatric surgery patients. There is a gap in the literature on psychological preparation for bariatric surgery patients. The above research does however provide information on what types of preparation might be helpful for bariatric surgery patients. It is possible that preparation for bariatric surgery presents a challenge to traditional preparatory approaches due to factors such as the nature of the post-surgical symptoms, interference with essential daily acts and the changing nature of symptoms over time. A preparation program that adequately prepares patients for events over a long time period may be difficult to develop and may ultimately need to be combined with longer term post-operative support.

Psychological and behavioural preparation is generally accepted as being a critical part of the bariatric surgery process (NICE, 2006). However preparation is underemphasised in the literature. Given that recovery is long-term for bariatric surgery patients, preparation on what to expect may be challenging. Preparation for the surgical procedure may be relatively easy as the mechanics of the surgery will be similar for all patients, for example general information regarding admission procedures, anaesthesia, risks and the discharge process. However, the long-term recovery process is more complex as there are a wide range of potential emotional changes post-surgery, some of which may not present as a problem until years after surgery.

Although there are existing preparation programs for bariatric surgery patients, the effectiveness of such programs has yet to be evaluated. In one such program, Meana and Ricciardi (2008) developed pre and post-operative preparation based on their research, clinical work and interviews with bariatric surgery patients. The program was designed to prepare patients for the potential emotional and relational consequences of surgery. They argue that although preparation in terms of diet, exercise and medication is important (behavioural instruction), psychological preparation is likely to be as important. The aim of their program was to guide patients through the pre-surgical preparation by using education, identification of issues and discussion of issues with significant others. The program then aimed to guide patients through the post-surgical process with an emphasis on emotional processing of changes, relationships, skill building and self-concept. The program could be implemented in support groups or individually, though within a group is recommended due to peer support. The focus on relationships and emotional factors differs from the more traditional preparation for surgery, such as sensory and procedural information and behavioural instruction. The effectiveness of incorporating relationships and emotional factors into the preparation for bariatric surgery patients has yet to be evaluated.

Based on clinical experience, Collazo-Clavell, Clark, McAlpine and Jensen (2006) recommend that patients receive behavioural therapy from a mental health professional prior to undergoing surgery. They claim that the aim of behaviour therapy is to guide and support patients through lifestyle changes such as eating, physical activity, stress management and social support. By educating and preparing patients it is hoped that long-term successful weight loss and improved health will be achieved. Collazo-Clavell, Clark, McAlpine and Jensen (2006) argue that patients who are not adequately prepared for bariatric surgery may be disappointed and less likely to adhere to their post-operative routine and may therefore fail to maintain weight loss and further physical risks will be increased. This highlights that preparation for bariatric

surgery goes beyond the simple preparation for generic surgery described in the previous section. It is designed to work on the longer term psychological needs of bariatric surgery patients in terms of the long recovery time line of the patient. Meana and Ricciardi (2008) conceptualised the recovery of bariatric surgery as stages of the journey. They described the first six months as the 'honeymoon' period, characterised by physiologically driven dramatic weight loss. They describe the next six months as the 'settling in' period whereby weight loss begins to slow down. Twelve to 18 months after surgery is described as the 'are we there yet' period, characterised by weight loss proceeding only through a commitment to eating and lifestyle change. The final stage, 18 months and beyond, is described as the 'deciding to stay' period and is characterised by weight maintenance and regain. At each stage there are psychological challenges and adjustments to be made. It is therefore important for preparation for bariatric surgery to take this into account.

There are no evidence-based models to identify patients whose psychological profile and motivation make them suitable for bariatric surgery (Collazo-Clavell, Clark, McAlpine & Jensen, 2006; Fabricatore, Crerand, Wadden, Sarwer & Krasucki, 2006). However there is some evidence to suggest that there are contra-indicators to surgery, for example it appears that there is a higher rate of weight regain amongst patients diagnosed with Binge Eating Disorder (BED) or Night Eating Syndrome (NES) prior to surgery compared to those with no such diagnosis (Mitchell & Steffen, 2009) Accordingly, Greenberg, Perna, Kaplan and Sullivan (2005) recommend that all weight loss surgery candidates should be evaluated for medical, psychological, and behavioural factors by an experienced mental health professional. They also recommend the development of pre and post-surgical treatment plans that address psychosocial contra-indicators for weight loss surgery and possible barriers to success. NICE (2006) guidelines emphasise a multidisciplinary team approach when assessing patients for bariatric surgery, to ensure that people have access to specialist health care professionals pre and post-surgery. The guidelines recommend a comprehensive assessment of any psychological or clinical factors that may affect adherence to post-operative care needs. Sogg and Mori (2008; 2009) argue that as part of multidisciplinary teams, psychologists can provide treatment recommendations to enhance the likelihood of success by evaluating behavioural, psychiatric and emotional variables. However, higher levels of psychological problems should not preclude people from accessing weight loss surgery. Rather, there should be some assessment of the ability to engage in treatment and make sure support structures are in place for individuals before and after surgery (BPS, 2011).

There is evidence to suggest that cognitive behavioural therapy (CBT) is an effective treatment of related conditions, such as bulimia nervosa (BN) and BED (Fairburn, 1995). Bariatric surgery patients may differ from patients with BN or BED. However, Apple, Lock and Peebles (2006) argue that there is convergence in some areas that supports the use of CBT to help with the similar difficulties experienced in bariatric surgery patients, such as binge eating, issues around control, over eating and dissatisfaction with body shape and weight. Anxiety, depression and low self-esteem are also common in bariatric surgery patients and CBT is a recommended treatment option in the NICE guidelines (NICE, 2007). Apple, Lock and Peebles (2006) developed a therapist guide, using CBT principles, to prepare patients for weight loss surgery. Using this approach to preparation involves education, anticipating challenges, problem solving skills, self-care and cognitive restructuring.

There is some evidence to suggest that attendance at weight loss surgery support groups is linked to better weight loss (Hildebrandt, 1998). Most support groups include individuals at different stages of the process but Marcus and Elkins (2004) argue that separating them into pre and post-surgery groups allows discussion topics to focus on the needs of the clients at different stages. Pre-surgery support groups emphasising preparation for surgery may be an efficient way to provide dietary advice underpinned by psychological approaches to behaviour change (BPS, 2011). Post-surgery support groups can provide a useful aftercare resource. Encouragement of adherence, praise for success, problem identification, new coping strategies, relapse prevention and interpersonal support and education have been identified as being the focus of such groups (Marcus & Elkin, 2004; Algazi, 2000). More research is needed on the effectiveness of such groups.

As already discussed, there is evidence to suggest that preparation for surgery improves recovery, therefore it is important that it is available to bariatric surgery patients. Given the difficulties that bariatric surgery patients may encounter post-surgery, for example changes in eating patterns, relationships, appearance and identity, weight loss, vomiting, diarrhoea, dumping syndrome and hair loss, it is likely that they will benefit from preparation of some form. Research suggests that the effectiveness of preparation will be influenced by a range of factors, for example, anxiety, medical knowledge, intellectual level and use of repetition (Ley, 1981; 1989). There is evidence that providing information about what to expect before, during and after surgery can lead to gains in patient satisfaction, understanding, adherence, adjustment and recovery, and can reduce distress (Johnson & Leventhal, 1974; Mathews & Ridgeway, 1984; Ley, 1998). According to the protection motivation theory, there are two types of information; intrapersonal (e.g. prior experience) and environmental (e.g. observational learning). Such

information influences patients' perception of severity, susceptibility, response effectiveness, self-efficacy and fear, which then elicit either an adaptive or a maladaptive coping response (Rogers, 1985). It seems that providing information is paramount in preparing people for surgery and this study examined this further in relation to bariatric surgery patients.

The present research

Despite guidelines and good practice in relation to bariatric surgery, there is a gap in the research on the types of preparation that bariatric surgery patients currently receive both within the NHS and private sector, and the effectiveness of such preparation. Due to the lack of research in this area it is unclear what happens regarding preparation in the UK and how much variation there might be. This study therefore firstly aimed to examine; what preparation a UK sample of bariatric surgery patients have received, how useful it was to them, what information was missing, what they would have liked more information on, and what areas were important to be prepared for. This data was collected using an online questionnaire. Secondly, this study aimed to explore individual experiences of the bariatric surgery journey, including their experiences of preparation, through the use of interviews. This study had two broad aims with more specific research questions;

Aim 1

To examine what a UK sample of bariatric surgery patients have received in terms of preparation for surgery.

Research questions

1) What type of preparation do bariatric surgery patients receive?
2) What areas would bariatric surgery patients have wanted more information on?

Aim 2

To explore individual patients' personal experience of bariatric surgery. It will consider whether patients felt prepared for the physical and psychological changes and adjustments following surgery.

Research questions

1) How do people experience the bariatric surgery journey?
2) What sources of information have been helpful in preparing bariatric surgery patients for surgery?

A mixed methods approach was used to examine these questions. The focus of the next chapter is on the method, results of the questionnaire and a brief summary of the findings. Chapter 3 examines aim 2 using semi-structured interviews. The final chapter discusses the findings of both the questionnaire and the semi-structured interviews.

CHAPTER 2 – STUDY 1 (QUESTIONNAIRE)

Method

Within this chapter I will present the method and results of the questionnaire. The purpose of study 1 was to examine the information a UK sample of weight loss surgery patients received prior to having surgery, how useful it was to them, what information was missing, what they would have liked more information on, and what areas were important to be prepared for. This information will contextualize the qualitative data gathered in study 2.

Design

A structured questionnaire was administered using the Bristol Online Survey (BOS) to capture a broad view of what people across the UK received in terms of preparation for weight loss surgery.

Recruitment and participants

Following approval from the Weight Loss Surgery Information and Support (WLSinfo) committee, an e-mail describing the study with a link to the questionnaire was sent to the 14 WLSinfo groups in the UK, identified through the WLSinfo website (www.wlsinfo.org.uk/), to be made available to support group members. The questionnaire was also made available on the WLSinfo and the British Obesity Surgery Patient Association (BOSPA) websites (www.bospa.org/). Participants were required to fulfil the following criteria: be over 18 years of age, able to read English and must have had weight loss surgery.

WLSinfo is a registered charity that was founded in 2002, with aim of becoming a UK online source for information on weight loss surgery. It facilitates a user-led support network for providing support and sharing knowledge and experience through the use of journals, forums and online chat. BOSPA is also a registered charity launched in 2003 run by obesity surgery patients to provide support and information to those considering, or have had surgery themselves.

The questionnaire was fully completed by 148 people. Participants were aged between 25 and 68 years, with a mean age of 46.6. Eighteen males (12.2%) and 130 females (87.8%) completed the questionnaire. The majority of participants described their current marital status as married or cohabiting (74.4%). A further 32 began the questionnaire but did not complete it. Demographic data for the two groups were similar (see Appendix I).

Materials

The questionnaire (see Appendix II) was developed for the purpose of this study by the researcher in consultation with service users. Demographic information was collected via a brief set of questions. Participants were asked to indicate their gender, age, current marital status, UK region of residence, postcode and nationality. The main questionnaire comprised 26 questions and was divided into the following eight sections; (1) personal details, (2) weight loss surgery, (3) preparation, (4) different parts of the weight loss surgery process (including admission procedures, anaesthesia and risks, surgery itself and risks, discharge from hospital, recovery process, and pain management techniques), (5) physical changes post-surgery (including loose or sagging skin, changes in body shape, hair loss, dry skin, swollen ankles, wound infections, dumping syndrome, health improvements, vomiting, nausea, bringing up mucus, flatulence, diarrhoea, and constipation), (6) changes in diet and eating behaviour post-surgery (including pre-surgery diet, post-surgery diet, restricting food intake, poor tolerance of and intolerance to certain foods and liquids, taking dietary supplements, managing cravings, comfort eating, social eating, and following an exercise plan), (7) changes in relationships and emotional changes post-surgery (including friendships, marriage and romantic relationships, sex life, relationship with family members, social life, work life, managing difficult emotions, managing positive emotions, new identity, and being prepared to seek support), and (8) reflections on the preparation received. Participants with more than one experience of weight loss surgery were asked to respond to the questions based on their most recent experience.

The questions contained a mixture of multiple choice, multiple response and free text response options. In some sections, participants were asked to identify whether they received information on the areas or changes specified by answering 'yes' or 'no'. Those who responded 'yes' were then asked to indicate on a 5-point Likert scale how useful the information received was (not at all (1), not very (2), a little (3), very (4), extremely (5)). Participants were then asked whether they personally had experienced the specified areas or changes.

Before launching the questionnaire, it was piloted with five service users, three colleagues and three peers. From the feedback received, some minor amendments were made. For example, 'Poor tolerance to certain foods and liquids' was added to question 20 and the wording on question 14 was changed from 'which of the following professionals did you have appointments with to discuss forthcoming surgery?' to 'which of the following professionals did you see to discuss forthcoming surgery?' to make it more explicit.

Procedure

The questionnaire was presented via the Bristol Online Survey (BOS) website. It was 'live' on-line from 4th November 2011 until 16th January 2012, and took approximately 15 minutes to complete. The purpose was outlined on the first page of the questionnaire, and informed consent was obtained prior to completion (see Appendix II). Participants consented by clicking on 'continue' after reading information about the study and agreeing to take part. Participants were informed that after clicking 'continue' on each page of the questionnaire, their responses were submitted and would not be possible to return to review or amend a page. Participants were free to withdraw at any time, without giving a reason.

Analysis

Frequencies and descriptive statistics were used to summarise: whether participants received information prior to surgery about the surgery process and anticipated changes post-surgery; if they had received information, how useful it was to them; and, whether they had personally experienced such changes. Qualitative data came from the written responses to three open questions which generated relatively concise free-text individual responses. Qualitative responses were analysed using thematic analysis, using guidelines provided by Braun and Clarke (2006) (see Table 1).

Table 1: Phases of thematic analysis

Phase	Brief description
1. Familiarise self with data	Transcribe data, read and re-read the data, note down initial thoughts
2. Generate initial codes	Systematically code interesting features across full data set
3. Search for themes	Collate codes into possible themes, gather all data relevant to each possible theme
4. Review themes	Check that themes work in relation to coded extracts and full data set, generate a thematic map of analysis
5. Define and name themes	Continue analysis, refine specifics of each theme and overall story, generate clear names and definitions for each theme
6. Produce report	Final analysis, select extract examples, relate analysis back to research question and literature, produce report

Adapted from Braun and Clarke (2006)

Credibility checks

Based on the good practice guidelines recommended by Elliott, Fischer and Rennie (1999), I took steps to ensure the quality of the thematic analysis. I grounded the data using examples of quotes to illustrate the different themes (see Appendix IV) and discussed these with my supervisor at various stages throughout the thematic analysis.

Ethical approval

The research project was approved by the National Research Ethics Service (NRES) Committee for Yorkshire and the Humber on 20th October 2011 (REC reference: 11/YH/0374). Please see Appendix V for a copy of the letter.

Results

Overall demographics of sample

Just over a quarter of the sample (27.7%) lived in the Yorkshire and Humber region, a quarter (25.7%) lived in South West England, and 15.5% lived in South East England. The majority of the sample (95.2%) described their nationality as British. The Index of Multiple Deprivation (IMD) scores for the sample ranged from 3.53 to 69.96 (a score of 1 being most deprived and 100 being least deprived).

Almost three quarters of the sample (73%) had a gastric bypass, 13.5% had a gastric band and 6.1% had a sleeve gastrectomy. The remaining 7.4% categorised as 'other' had either a mini bypass (n=1), a duodenal switch (n=7), biliopancreatic diversion (n=1) or a gastric balloon (n=2). Some 8.8% of the sample (n = 13) had weight loss surgery more than once. Regarding funding, three quarters of the sample (74.3%) had their weight loss surgery funded by the National Health Service (NHS).

Table 2: Main demographics for questionnaire completers

Demographic	Response options	N	(%)
Gender	Female	130	(87.8)
	Male	18	(12.2)
Marital status	Relationship	110	(74.3)
	Single	16	(10.8)
	Divorced	13	(8.8)
	Separated & widowed	9	(6.1)
Nationality	UK	141	(95.2)
	Other	7	(4.8)
WLS>once	No	135	(91.2)
	Yes	13	(8.8)
Type of surgery	Roux-en Y gastric bypass	108	(73.0)
	Gastric band	20	(13.5)
	Sleeve gastrectomy	9	(6.1)
	Other	11	(7.4)
Funding	NHS	110	(74.3)
	Private	38	(25.7)

Participants ranged in age from 25-68 years. The mean average pre-surgery weight of the sample was 151.5kg (SD = 33.7) and post-surgery weight was 99.6kg (SD = 30.0). The time since surgery ranged from eight years to a few days (23/6/2004 to 7/1/2012).

Methods of preparation for surgery

The majority of the sample (93.9%) discussed the forthcoming weight loss surgery with a surgeon. Most (84.5%) also discussed surgery with a dietitian. Only 21.6% discussed the surgery with a psychologist. Only two participants reported not having gathered any information at all prior to having weight loss surgery. Of the remaining 146 participants, all reported using the internet to carry out their research. Three quarters (73.3%) of the sample used bariatric support groups as a source of information. Fewer than half (39.7%) used family, friends or other social contacts, or books (32.9%) to research their forthcoming surgery.

Table 3: Research methods used to prepare for weight loss surgery

Research method	Response options	N	(%)
Discuss with professionals	Surgeon	139	(93.9)
	Dietitian	125	(84.5)
	Anaesthetist	110	(74.3)
	GP	106	(71.6)
	Bariatric specialist nurse	94	(63.5)
	Psychologist	32	(21.6)
	Plastic surgeon	2	(1.4)
	Other	21	(14.4)
Own research	Internet	146	(100.0)
	Bariatric support groups	107	(73.3)
	Friends/family or other social contacts	58	(39.7)
	Books	48	(32.9)
	Other	13	(8.9)

Different parts of the weight loss surgery process

Prior to surgery all the sample received information on the surgery itself and associated risks. Almost all the sample (86.2%) found the information either very or extremely useful. Just over half the sample (60.1%) received information on pain management techniques, and 62.8% experienced pain following surgery. Of those who received information on pain management techniques, three quarters (74.7%) found it very or extremely useful, 20.7% found it a little useful and 4.6% not very useful (see Appendix VI).

As can be seen in Table 4, overall 83.4% of the sample received some information on the different parts of the weight loss surgery process. Only 23.0% received information on relationship and emotional changes, yet over half (54.3%) experienced such changes. On average the information received was rated as useful. Information on physical changes received the lowest average rating (3.58) and information on different parts of the process received the highest (4.19).

Table 4: Areas of preparation received by the whole sample (N=148)

Areas of preparation	% of respondents who received information	Mean ratings of usefulness of information (1-5)	% of respondents who experienced
Different parts of process	83.4	4.19	75.5
Changes in diet and eating behaviour	65.1	4.09	77.1
Physical changes	57.9	3.58	58.4
Relationship and emotional changes	23.0	3.65	54.3

Changes in diet and eating behaviour post-surgery

Most, but not all, of the sample reported that they received information about the pre and post-surgery diet (91.9% and 94.6% respectively). A high proportion of the sample received information on restricting food intake (92.6%) and taking dietary supplements (89.2%). The majority (84.5%) received information about poor tolerance to certain foods and liquids. Just over a third of the sample received information on managing cravings (33.8%), comfort eating (35.1%), grazing (39.9%) and social eating (41.2%); over half experienced such eating behaviours following surgery. See Appendix VI.

Overall, 65.1% of the sample reported that they received some information on the changes in diet and eating behaviour post-surgery and 77.1% had personal experience of such changes. The mean average rating (1-5) for the usefulness of the information received was 4.09 (very useful).

Physical changes post-surgery

The majority of the sample (85.8%) was given information about the possible health improvements following surgery and over three quarters (78.4%) experienced such improvements. Half the sample (54.7%) did not receive information about changes in body shape post-surgery, but most (85.1%) experienced such changes. Only 30.4% received information about dry skin, yet almost half (46.6%) experienced dry skin post-surgery. Similarly, only 35.8% received information on bringing up mucus, yet almost half (47.3%) experienced this. A high proportion received information on dumping syndrome (79.7%), wound infections (73%), and vomiting (72.3%). See Appendix VI.

Overall 57.9% of the sample received some information on the physical changes post-surgery and 58.4% had personal experience of such changes. The mean average rating (1-5) for the usefulness of the information received was 3.58 (a little useful).

Changes in relationships and emotional changes post-surgery

About a third of the sample (33.1%) reported that they received information on being prepared to seek support, which was the highest of all the categories in this section (see Appendix VI). In each category, more people reported that they experienced changes they had not been prepared for. Only 18.9% received information on changes in sex life or managing positive emotions, yet over half experienced such changes (57.4% and 64.2%, respectively).

As can be seen in Table 4, only 23% of the sample reported that they received some information on the changes in relationships and emotional changes stated, and 54.3% had personal experience of such changes. The mean average rating (1-5) for the usefulness of the information received was 3.65 (a little useful).

Comparisons between different groups

As can be seen in Table 5, proportionately more men reported receiving information than women, across all areas relating to preparation. Similarly, more information was reported as being received by those under NHS care compared to private. A higher proportion of participants who had a sleeve gastrectomy reported receiving information on parts of the process, diet and eating behaviour, and relationships and emotions compared to the remaining three surgery types. This is likely to be because of small numbers in sleeve gastrectomy rather than there being any real difference. The least information on physical changes was reported by those receiving a gastric band. All these findings should be interpreted with caution due to variation in sample size for each group.

Table 5: Information received on areas of preparation (%)

Group (N)		Parts of process	Physical changes	Diet & eating behaviour	Relationships & emotions
Gender	Male (18)	94.4	68.7	72.7	37.8
	Female (130)	81.9	56.4	64.0	21.0
Funding	NHS (110)	84.5	60.1	66.0	27.0
	Private (38)	80.3	51.5	62.4	11.6
Surgery type	Gastric band (20)	82.5	45.4	60.9	14.5
	Gastric bypass (108)	83.0	59.1	65.7	24.4
	Sleeve gastrectomy (9)	98.1	62.7	74.8	40.0
	Other (11)	77.3	64.9	58.7	11.8
	Overall (148)	83.4	57.7	65.1	23.0

Reflections on preparation received

In the final section of the questionnaire, participants were asked the following three questions about the preparation they received; 1) what, if anything, was missing; 2) what, if anything, would you have liked more information on; and 3) what was the most important thing to be prepared for? Over half (58.8%) of the sample reported that some preparation information was missing, and over a third (39.9%) commented on what they felt was missing. Similarly, over half (61.5%) reported that they would have liked more information prior to surgery and over a third (37.2%) commented further. The third question was mandatory resulting in a 100% response rate.

Five main themes were identified from the responses to these questions (Figure 4; see Appendix IV for a brief description of all the themes discussed below and illustrative quotations).

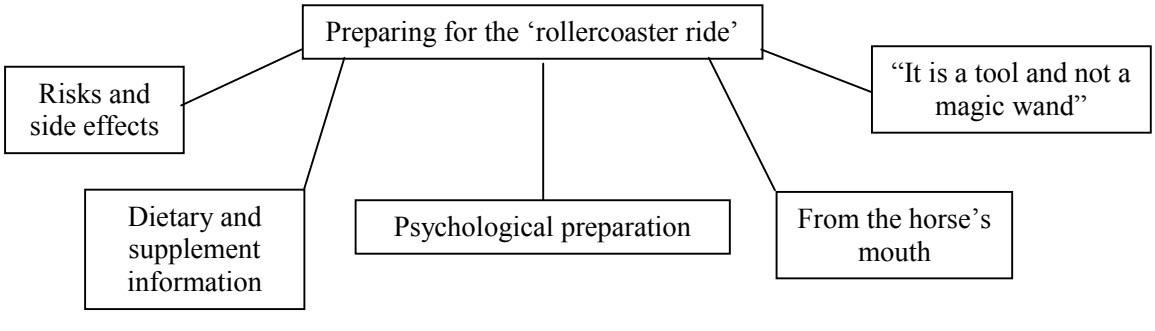


Figure 4: Preparing for the 'rollercoaster ride'

Examination of Table 6 shows that most comments were made about psychological preparation (95). A similar number of comments were made about risks and side effects, and dietary and supplement information (62 and 69, respectively). The theme *from the horse's mouth* generated the least number of comments (15). Finally, 49 comments were made about the theme *it is a tool and not a magic wand*. All these comments were made in response to the question about the most important thing to be prepared for before undergoing weight loss surgery.

Table 6: Frequency of comments by theme

	Frequency of comments			
Themes	**Missing information N=59**	**Wanting more information N=55**	**Most important N=148**	**Total**
Psychological preparation	38	26	31	95
Risks and side effects	16	23	23	62
Dietary and supplement information	8	23	38	69
From the horse's mouth	6	4	5	15
It is a tool and not a magic wand	0	0	49	49

Psychological preparation

Many participants made comments about either a lack of psychological preparation throughout the journey, or it being the most important thing to be prepared for. Such preparation may include support from professionals. Many comments referred to the emotional adjustments to the physical changes happening to their body:

> *"Help to understand why I had a self-harm button, and why I was using food to kill myself, also help with my head to sort this out, still 4 years down the road having trouble, food still is in charge, everyday I have a fight, I do not feel hungry but head does just want to nibble."*

> *"Emotional/psychological support before and after. As someone qualified and practising in Person Centred, CBT and Solution Focused therapy, I feel that*

therapeutic input is sorely missing particularly as relationships with others alter so much post-op."

"…the operation deals with the size of your stomach but doesn't fix the head issues you have with food and to me this should be a very important part of preparing people for surgery and there should be some form of continual counselling after surgery."

For some people the physical and emotional changes contributed to wider systemic changes, such as changes in friendships, family and intimate relationships:

"Being told that friends could drop you or change towards you when you go for the operation and the same with larger family members how they could be unkind once the surgery has been undertaken."

Risks and side effects

Many participants commented that information on the risks and side effects associated with weight loss surgery was either missing, or more information was required, or it was deemed as being the most important thing to be prepared for. Participants made comments about the pain and discomfort caused by food getting "stuck" after swallowing, often resulting in vomiting to dislodge the obstructing food:

"I was not prepared for food getting 'stuck' and the pain and discomfort this caused."

Some participants commented on suffering from constipation following surgery, whilst others suffered with diarrhoea:

"Constipation. I have suffered seriously from this and have had a number of operations to repair damage done by it."

"Warning about having sickness and the runs as that was an embarrassing side effect and I was totally caught unaware."

The quote below summarises many of the risks and side effects highlighted by other participants. It captures the physical pain, range of emotions, sickness and lethargy frequently commented on:

"We are completely unprepared for what happens post-op. the awful taste in your mouth, heightened sense of smell, being sick every day, food tasting ok one day and awful the next, the pain, the anger, the resentment of not being able to eat, the regret of going through this, the tiredness, the non sleeping, of not feeling well or yourself."

Some participants felt unprepared for the weight regain that can begin approximately 12 months after surgery. Feeling cold was highlighted as an uncomfortable side effect by a number of participants:

"That there is a possibility of adhesions following the surgery that can cause ongoing pain. That you may experience some regain further down the line. To expect to feel bone chilling coldness for about the first year."

Dietary and supplement information

Many comments were made about either a lack of information on diet and supplements, or it being the most important thing to be prepared for. Participants made comments about wanting information on changes in diet, recipe ideas, change in portion size, eating restrictions, nutrition, supplements, managing cravings and comfort eating:

"More focus on supplementation and multivitamins. We have found a huge difference after finding a good quality supplement that we now take."

"More ideas on what we can eat, more suggestions, recipes, diet plans etc as we receive only a very small booklet."

"I would have liked to have seen the dietitian for suggestions as to what foods to eat post-surgery. Everything I learnt was from books or internet searches, I felt pretty much on my own after the operation."

Some participants highlighted the importance of learning new eating habits after surgery and that such changes need to be longstanding:

"Diet. I know way too many people that were not prepared to change their eating habits permanently."

"Learning to eat food slowly and to CHEW IT WELL or you will more than likely be sick and STOP EATING when you feel full this is most important."

From the horse's mouth

Some participants highlighted the value of communicating with individuals who have had personal experience of weight loss surgery. This may be in the form of support groups, internet based social networks or literature produced by those who have had weight loss surgery:

"The pre and post-operative advice should be written by people who have had the surgery and experienced the difficulties both physical and emotional."

"Bring in people several years out who have had the same surgery. See a sample day of how they eat and when they fit in vitamins/supplements, etc. Just how they live it."

"To make use of the support groups available, as the peer support is more regular than hospital appointments and are also genuine experiences."

It is a tool and not a magic wand

For a third of the sample, the most important thing to be prepared for before undergoing weight loss surgery was the hard work involved. Many comments highlighted that the surgery is "*not a quick or easy fix to a weight problem*" and the hard work continues after surgery. They emphasised that surgery "*is a tool and not a magic wand*" that must be worked with rather than against:

"Anyone undergoing WLS needs to understand that generally speaking the operation is the easy part, beyond that is a long hard road."

"I think it's very important that people know it's still hard work even after the surgery. The surgery is a tool to help you lose the weight, you still have lots of work to do."

"That it is a contract, the surgeon gives you the tool to lead a fitter, healthier life but you have to use that tool wisely and not become complacent."

Summary of findings

These findings provide an insight into the type of preparation received by a sample of bariatric surgery patients in the UK. The majority of the sample discussed their forthcoming weight loss surgery with a surgeon, anaesthetist, dietitian or general practitioner. All but two participants did their own research prior to surgery, the most popular resource being the internet, closely followed by bariatric support groups. Support groups may be an efficient way to provide preparation and aftercare (BPS, 2011).

Of the four different areas of preparation identified in the questionnaire, most of the sample reported receiving information on the different parts of the process and changes in diet and eating behaviour. Just over half of the sample reported receiving information on the physical changes in preparation for surgery. Less than a quarter reported receiving information on relationship and emotional changes, yet over half had personal experience of such changes post-surgery, suggesting that this may be an important area for weight loss surgery patients to be prepared for. The mean average usefulness ratings for the information participants received prior to surgery ranged from 3.58 to 4.19 (the rating scale ranged from 1-5). This shows that on average participants found the information they received useful when they did receive it.

Comparisons between different groups showed that males reported receiving preparation information slightly more frequently than females. Similarly, a slightly higher proportion of NHS patients reported receiving information in all four areas compared with private patients. A higher proportion of participants who had a sleeve gastrectomy reported receiving information on parts of the surgery process, changes in diet and eating behaviour, and relationships and emotional changes compared to gastric band, gastric bypass, and other. Separating the questionnaire responses into different groups for comparison purposes inevitably results in smaller numbers in each group. This reduces external validity and therefore makes it difficult to generalise from the findings.

Five main themes were identified from the responses to the final three questions about reflections on the preparation received. The areas highlighted as having either a lack of information, or as being the most important things to be prepared for were; information on the risks and side effects of bariatric surgery, information on diet and supplements, preparation for the psychological effects of surgery, access to information from people who have had personal experience of bariatric surgery, and finally one of the most important things to be prepared for was the hard work involved after surgery and the complete change of lifestyle afterwards. This is perhaps unsurprising given that many of the questions in the questionnaire asked about preparation in some of these areas.

CHAPTER 3 – STUDY 2 (INTERVIEWS)

Method

Within this chapter I will present the method and results of the interviews. The purpose of this study was to explore individual patients' personal experience of bariatric surgery and to consider what sources of information were helpful in preparing them for surgery. Firstly I will provide details of the method, then outline the sample and provide a series of pen portraits describing each participant in detail to give context to the results of the group analysis. I will then present the results of the group analysis using a table format and I will explore each master theme, illustrating with quotations. This chapter ends with a brief summary of the findings and some reflections on interviewing and the process of analysis.

Design

Semi-structured interviews were used to explore individual experiences of the bariatric surgery journey with a focus on participants' experiences of preparation for the subsequent physical and psychological changes.

Recruitment and participants

Participants were recruited from a bariatric surgery support group based in the Yorkshire region. The group was set up in 2008 by service users and dietitians, for people who have had or are planning to have weight loss surgery. The support group is recommended to bariatric surgery patients when they meet the dietitian at their pre-surgery assessment. Some patients hear about the group by word of mouth and via the internet. Between 30 and 70 people attend the support group on a monthly basis. I attended four support group meetings to introduce and explain the study, answer any questions and to distribute information sheets and consent forms. Information about the study and recruitment parameters was also e-mailed to all the bariatric support group members via one of the group's co-facilitators.

Participants were required to fulfil the following criteria: that they should have had bariatric surgery at least 12 months prior to the interview date and that they should be fluent in English.

Five females and two males responded. A sixth female seemed keen to participate initially, but when contact was made to arrange an interview she was experiencing some personal difficulties; she agreed to make contact at a later date, but did not get back in touch. A further female was interested but did not meet the inclusion criteria as it was only three months since her surgery.

Five females and two males, living in the Yorkshire region, were interviewed for the study. They ranged in age from 30 to 49. Six of these had a gastric bypass and one had a gastric band, between one and five years prior to the interview. All participants were employed. Four were in a relationship and three were single. See Table 8 (p.42).

Materials

Individual experiences of preparation for bariatric surgery were explored through semi-structured interviews (see Appendix VII). An interview schedule was developed, in consultation with service users, to guide the interview and ensure that similar material was covered with each participant. Questions were designed to be open, to encourage the participant to talk at length about their experiences. The schedule was used as a guide, allowing each individual to tell their own story. Prompt questions were included to access thoughts and feelings (e.g. 'How did you expect others to react?' or 'How did you feel?'). As suggested by Smith, Flowers and Larkin (2009), more general prompts were used to encourage the participant to provide further information (e.g. 'Could you tell me more' or 'That's interesting, go on').

The interview schedule was piloted on the first participant. No changes were made to the interview schedule following the pilot and the data gathered were considered suitable for inclusion in the final analysis.

Procedure

Those who expressed an interest in participating were contacted by telephone or e-mail, given an information sheet and consent form and the opportunity to ask questions. Arrangements were made to conduct the interview at their homes. Before starting each interview the information sheet was explained and participants were given a further opportunity to ask questions. The consent form was also explained, and each participant was guided through issues regarding consent and confidentiality.

The interviews comprised open ended questions, in a semi-structured format about individual experiences of the journey through the bariatric surgery process and their experience of preparation for surgery. After the interview, participants were given the opportunity to choose their own pseudonym. All interviews were conducted by the same researcher and lasted between 50 minutes and two hours 20 minutes. They were digitally audio recorded and transcribed. One interview was transcribed by the researcher and the rest were typed up by a professional transcriber who signed a confidentiality statement.

Analysis

Selection of methodology Alternative approaches were considered for data analysis. Thematic Analysis (Braun & Clarke, 2006) was considered because it is not tied to a particular theoretical model and so offers a flexible approach. However, it has been criticised for being poorly demarcated and underpinning all other qualitative methods. Braun and Clarke (2006) claim that Thematic Analysis is a method in its own right and it aims to identify, analyse and report patterns (themes) within the data. This approach was discounted, however, because of its lack of emphasis on the phenomenology of experience which is central to the research aim.

Discourse Analysis was considered because it emphasises the possibility of multiple meanings and realities, and it considers the impact of the researcher on the discourses obtained. It was discounted because it focuses on how a phenomenon is constructed through language and is less focused on individual experiences.

Interpretative Phenomenological Analysis (IPA) was favoured over Grounded Theory because the present research is interested in developing an in-depth understanding of individual experiences, rather than developing a theoretical framework which can be generalised across experiences. IPA emphasises personal meaning making by individuals within a context and with a shared experience (Smith, Flowers & Larkin, 2009). This best fits the second aim of the study; to explore individual participants' experience of bariatric surgery and the extent to which they felt prepared for the physical and psychological changes following surgery.

IPA aims to explore the participants' experiences from their own perspective, rather than attempting to develop an objective statement about an event (Smith, Jarman & Osborn, 1999). IPA researchers recognise that research is a dynamic process and the researcher will have their own view of the world, making it impossible to get direct access to participants' worlds (Smith, Flowers & Larkin, 2009). IPA researchers recognise that understanding cannot take place without assumptions being made about the meaning of what we are attempting to understand. Thus the phenomenological analysis is always an interpretation of the participant's experience, and requires awareness of the researcher's reflexivity throughout. It aims to capture quality, texture and depth of individual experiences. While it is not claimed that thoughts are directly translated into verbal reports, there is an assumption that through analysis, meaningful interpretations can be made about thinking (Smith, 2003).

Data Analysis The data were analysed using the steps outlined by Smith, Flowers and Larkin (2009) as a general framework. Please refer to Table 7 below.

Table 7: Steps of analysis

Step	Description
1. Reading and re-reading	Immerse oneself in the data by reading and re-reading the interview transcripts. Listen to the audio-recording of the interview. Note reflections and responses to the interview.
2. Initial noting	Examine the semantic content and language use on a exploratory level by noting initial thoughts and observations (e.g. use of language, summaries, associations, descriptive and conceptual comments). Aim to produce a comprehensive and detailed set of notes and comments on the transcript. Record comments in the margin of the hard copy of the transcript.
3. Developing emergent themes	Identify and label emergent themes that characterise each section of the text. Analyse exploratory notes, map the interrelationships, connections and patterns. The aim of this stage is to reduce the volume of detail whilst maintaining complexity.
4. Searching for connections across emergent themes	Patterns and connections between emergent themes are then identified whereby similar themes are grouped together and a new label (master theme) is given to capture the meaning. Write all themes on a separate bit of paper and reorganise to produce a graphic representation of emergent themes e.g. a table or figure. Annotate themes with page and line numbers and words to illustrate. Themes are compared against the text that generated them to ensure the master themes fit well in relation to the original data.
5. Moving onto the next case	This procedure is carried out for each interview, looking for patterns across cases to form a final set of master themes for the whole sample.
6. Looking for patterns across cases	Lay out the table of themes for each transcript and search for patterns and connections. This may lead to reconfiguring and relabelling of themes. Produce a table of themes with each theme illustrated by each participant.

Although the method and sequence of analysis was inspired by Smith, Flowers and Larkin (2009), it is a creative process. Rather than following the steps in a linear manner, I

regularly moved back and forth through different ways of thinking about the data. I developed and followed a protocol that describes the main stages of analysis (see Appendix VIII).

Quality checks To check the credibility of the analysis an audit trail of the research project was developed, including raw data, process notes, reflections, emergent themes and analysis notes. These elements were reviewed and discussed in supervision to check that the analyses were justified on the basis of the data collected. Guidance (Yardley, 2008) for considering quality in qualitative research was followed, and my analysis was monitored routinely through supervision at each stage of the analysis. In qualitative research, the researcher is central to the process of data collection and analysis. Although this can be advantageous in terms of engagement with the data and the interpretation process, it also generates bias. I bring to the research my own personal and professional assumptions and experiences, which I tried to address throughout the process by reflecting on my own position in relation to the research.

Reflexivity

I am a 32 year old, white, middle-class woman, engaged to be married with no children. In general, I consider that I have a healthy relationship with food. I enjoy eating, trying out new recipes and cooking. As a child I was encouraged by my parents to try different foods. I like the social aspect of eating and love going out for meals and cooking for others. My weight is relatively stable and I have never been on a diet. At times of stress I tend to lose my appetite for savoury food, eat more sugary food and exercise less.

I have observed close family and friends battling with weight loss through various diet plans. Two work colleagues have had weight loss surgery, one of whom was very open and regularly shared her experiences with me. This experience made me more curious about individual experiences of weight loss surgery and influenced my decision to carry out research in this area. One colleague spoke to me at length about a conflict between feeling elated with the rapid weight loss but disappointment with the excess skin. This influenced what I expected the participants of this research to experience.

I have worked clinically in an eating disorders unit with people diagnosed with anorexia nervosa and bulimia. Some of the themes I became aware of in my clinical work, for example, loss of identity and changes in relationships, were also highlighted in the literature on bariatric surgery patients. The themes which emerged from the present data, the development of the interview schedule, and my behaviour during the interview (for example, non-verbal behaviour

and prompts) have all been influenced by my own personal and clinical experience, and by the literature on weight loss surgery.

The interviews were shaped to some extent by the material that emerged from the questionnaire data. In a true mixed methods design the interview schedule would have been designed based on the findings of the questionnaire. However, once I got ethical approval I began recruiting for both the questionnaire and the interviews. As recruitment for interviews took longer than the questionnaires, I carried out some interviews after analysing the questionnaire data. My knowledge of those findings may have influenced my non-verbal behaviour and use of prompts during those interviews. My analyses of those interviews were also shaped by my knowledge of the findings from the questionnaire data. My awareness of this led me to try to bracket off the influence and I reflected on it regularly in supervision.

Results

Description of the sample

The seven participants interviewed had a range of experiences and backgrounds. An overview of the participants is outlined in Table 8 below.

Table 8: Outline of the sample

Pseudonym	**Gender**	**Age range**	**Marital status**	**Dependents**	**Type of surgery**	**Time since surgery (years)**
Claire	Female	40-49	Married	Yes	Gastric bypass	5
Ann	Female	30-39	Single	No	Gastric bypass	2 ½
Josie	Female	30-39	Single	No	Gastric band	4 ½
Brian	Male	40-49	Married	Yes	Gastric bypass	1
Lucy	Female	40-49	Relationship	Yes	Gastric bypass	1 ½
Floyd	Male	40-49	Married	Yes	Gastric bypass	2
Isabeau	Female	40-49	Single	No	Gastric bypass	1

Pen portraits

To help give the reader a more in-depth account of each participant's experiences I developed a pen portrait for each participant. The pen portraits are based on the information gathered during the interview and personal reflections.

Claire Claire is in her 40s, married with two school age children. She works part-time. Claire had a gastric bypass five years ago. Throughout her life, Claire has had a difficult relationship with food and weight and described herself as being bulimic since the age of 16. Within eighteen months of having surgery, Claire had lost 12 stone. During the interview she described the difficulties she experienced adapting to the physical and emotional changes following surgery, for example, excess skin, loss of identity and changing relationships. Claire noticed some of her expectations about what life would be like after surgery were not met. For example, she expected to feel attractive, her social life to improve and everything in her life to "*get better*", but felt disappointed that her post-surgery life was not the ideal life that she imagined it would be. Claire described a discrepancy between her physical appearance and her self-image to the point that sometimes she did not recognise herself in the mirror.

Although the journey was a difficult and emotional one for Claire, she described having the surgery as being the best thing she ever did. Claire enjoys having a more active lifestyle now and this has had a positive impact on her family life too. Claire reflected that understanding the cause of her bulimia prior to surgery would have been helpful. When Claire had surgery there was no support group available. She highlighted the value of the support group and wondered whether she might have found it easier to adapt to the changes, and have more realistic expectations about her post-surgery life, if the support group had been available to her prior to surgery.

Claire was my first interviewee and a chance for me to pilot the interview schedule. I enjoyed interviewing Claire as I found her to be very direct, straight to the point, open and honest about her experiences and feelings. Claire used humour a lot throughout the interview, particularly when discussing potentially embarrassing topics. This was my shortest interview (55 minutes) and I question whether using more prompts may have encouraged even more in-depth data than was generated. As it was my first interview, I felt quite apprehensive and worried about my questions feeling too intrusive. This may have contributed to me using fewer prompts. Despite my concern about this the data generated was rich and was used in the final analysis.

Ann Ann is in her early 30s, single and works full-time. About 2 ½ years ago Ann had a gastric bypass following a long history of diets, exercise programs and appetite suppressant medication. During the interview Ann tried to understand why she became overweight and questioned the role of genetics, her parents, society, education and lifestyle. Ann was unaware of the type of weight loss surgery she was having until the day before the operation. Ann was desperate to have weight loss surgery and viewed it as her "*golden opportunity*". She avoided researching weight loss surgery because she "*didn't want to scare*" herself. She also worried about asking professionals questions because she "*didn't want to rock the boat*" in case she was turned down for surgery. Ann attended the support group prior to having the operation to meet people who had either had weight loss surgery or were considering it. After losing a lot of weight Ann's confidence improved, her mobility improved, she gained a promotion at work, started going out socially, her relationship with her sister improved and she started adjusting to her changing identity. Ann spoke about feeling self-conscious about her excess skin.

Ann's parents live abroad, but travelled to England to support Ann through the operation. Her sister lives locally and has also been a source of support for Ann. Ann spoke about her changing relationship with her mother. After having surgery Ann became increasingly worried about her mother's weight and health. Her expression of this concern has caused some ruptures between them.

The interview with Ann lasted for two hours and 18 minutes. She was very open and honest about her experiences and afterwards reflected that she found the interview a very therapeutic experience. Unlike the other participants, Ann spoke at length about the positive impact she believes her weight loss has had on her career progression. Ann linked this to her growing confidence, leading her to feel able to put herself forward for new challenges. Ann was very critical of her former self throughout the interview, referring to herself as "*this big whale of a person*" and "*disgusting*". I found some of the critical, derogatory, self loathing words Ann used to describe her former self quite difficult to listen to.

Josie Josie is a single woman in her early 30's who works full-time. In 2007 Josie had a gastric band fitted and lost 7 ½ stone. Josie received a lot of support from family members throughout the process. Josie attended a support group a few times prior to surgery but she did not find it helpful. Since having the surgery she has started attending a different support group. Josie described identifying with more members of this group and getting the information and support she needs from it. Josie spoke about her confidence improving following surgery and

her relationships changing. Unfortunately almost four years later Josie's band slipped, causing her a lot of pain and difficulty keeping food and fluid down. The only option was to have the band removed (the removal was a year prior to interview). This was a difficult time for Josie as she did not want to have the band removed and she became very anxious about weight regain.

The interview with Josie lasted for one hour and seven minutes. Josie was a warm character who was very reflective and honest throughout the interview. She was the only person I interviewed who had a gastric band fitted. Josie's disappointment with having the band removed featured quite a lot in our interview. After having the band removed, she wanted to have a gastric bypass but financial barriers prevented this. She spoke about the struggle to accept herself for who she is.

Brian Brian is a gentleman in his 40s. He is married with two children and runs his own business. Brian had a gastric bypass in 2010 following a long history of weight loss attempts. Brian has lost approximately 12 stone since having the operation. Brian's family have supported him throughout the journey. Both Brian and his wife attend a monthly support group meeting and have found it an invaluable source of support and information. He valued having the opportunity to speak to people who have had surgery and found it helpful to watch the surgical procedure on television. He recognised that some people find it hard to watch the procedure and it may act as a deterrent. Brian's attitude was "*to me you are going to be asleep, you will be out of it. He could cut off your leg and sew it on to your head!*"

Many of the health complaints Brian had prior to surgery have improved. He described having much more energy, enjoying riding his bike and being more physically active with his family. Brian reflected on his relationship with his children and how he feels closer to his family now because he is physically able to be involved in activities, rather than being on the sidelines. He spoke about the excess skin being a problem for him, and is considering having surgery in the future.

The interview with Brian lasted for one hour and 21 minutes. I observed that Brian enjoyed talking about the types of food that he likes and how his eating habits have changed following surgery. He described himself as "*the dustbin*" before he had surgery and said that his family would "*press my foot to see if my mouth opened!*" Brian used humour a lot throughout the interview. He spoke about pushing the boundaries sometimes and trying foods that are not recommended. I was struck by Brian's relaxed and positive attitude, even when he had some quite serious complications following surgery. He often used language like "*whatever happens*

it happens" and "*going with the flow*". He described physical sensations as "*uncomfortable*" and often reiterated that he "*wasn't in any pain*".

Lucy Lucy is in her 40s and works full-time. She is in a relationship and has two teenage children. Lucy had a gastric bypass in 2010, primarily for physical health reasons. She attends the monthly support group meetings on a regular basis. Lucy researched as much as she could about the surgery in preparation. She described herself as being "*one of these people that feels I have to know everything*". She referred to a booklet provided by the dietitian as being "*like a bible*". Lucy described feeling "*absolutely terrified*" prior to surgery. She was convinced that she would die during surgery and wrote letters to her loved ones in preparation. Lucy spoke about her experience of dumping syndrome leaving her very cautious about introducing new foods into her diet. Although Lucy expected to have loose skin, she was surprised by the emotional impact it had on her. She also expressed her concern about her hair becoming thin. Lucy's friend had serious complications following surgery so Lucy expected her own recovery to be much worse than it was. She described improvements in her health and energy levels and being much more physically active now. Lucy's relationship with her husband deteriorated following surgery and they separated. She is now in a new relationship. Although Lucy's relationship with her children changed following surgery, she questioned whether this was due to her surgery or other life events.

The interview with Lucy lasted 58 minutes. Lucy's life had changed dramatically since having weight loss surgery. She was very honest about how things had changed and she explored her feelings in relation to the changes, particularly in relation to separating from her husband. Separating from her husband following surgery was a very personal experience and I was struck by the way she introduced it in the interview. Lucy giggled when she told me that she had split from her husband, with whom she had been in a relationship with since the age of 15 years. I wondered whether she was anxious about my reaction to this part of her story. I invited her to tell me more and Lucy then went on to make sense of this experience. I wonder whether she would have continued to talk about this area if my reaction to it had been different.

Floyd Floyd is in his mid 40s, married with children. He works full-time. He had a gastric bypass in November 2009, primarily for health reasons. Floyd has lost 13 ½ stone since having surgery, going from a 50" waist to a 32". Prior to surgery, Floyd and his wife did a lot of research about it. The support group was an invaluable source of support, information and encouragement for Floyd and his family. Having the opportunity to speak to people who had

been through the surgery, or in Floyd's words "*been there, done that, got the T shirt*" was important in preparing for surgery. Historically, Floyd tried various diets and whenever he was dieting he would become low in mood and withdrawn, this affected his relationship with his family. Floyd was therefore concerned about his personality changing following surgery.

My impression was that Floyd liked things to be organised and if things were not on his "*tick list*" as he called it, he became unsettled. When some things did not go quite to plan prior to surgery Floyd found this anxiety provoking. The recovery process seemed slow and painful for Floyd. After losing a lot of weight Floyd described having a much better quality of life. He was on less medication for his health problems, in less pain, more mobile, and had more energy. Although Floyd's physical appearance changed quite rapidly, he said it took longer for him to emotionally adjust to his changing identity. Losing weight was synonymous with losing strength and protection for Floyd, leaving him feeling vulnerable and weak.

The interview with Floyd lasted one hour 56 minutes. I found him a fun character to interview. His wife was present throughout the interview and contributed at times. Floyd often referred to his wife for clarification of events and timescales that he was unsure about. Floyd's wife was very supportive throughout the interview and this mirrored how he described her to be throughout the journey. It struck me that the loss of strength and protection seemed to be very difficult for Floyd to adjust to. He described an experience whereby he was hit by a car at 40mph prior to surgery and left the accident with just a few bruises. He believes his weight protected him from further injuries and without this weight he feels very vulnerable.

Isabeau Isabeau is in her 40s, single and works full-time. She had a gastric bypass one year ago. Unfortunately Isabeau had her weight loss surgery cancelled three times. She described finding this experience very frustrating, as though her life was on hold. Isabeau considered herself to have an eating disorder and described using food as a coping strategy when she feels that things in her life are out of control. She spoke about a conflict between her weight acting as a barrier to protect her and also imprisoning her. She used therapy to help her to emotionally prepare for her fears about feeling vulnerable after losing weight. Although Isabeau spoke about continuing to feel dissatisfied with her body after surgery, primarily due to the excess skin, she also spoke about feeling more feminine.

To help her prepare for surgery, Isabeau preferred speaking to people who had had surgery via the support group, over other preparation methods. Relearning about food and diet after surgery was a challenge for Isabeau. She described her overeating as an addiction and her desire to eat large portions remained after surgery. Isabeau changed her eating behaviours to

help with this, for example, chewing her food slowly. For Isabeau, post-surgery life is more fun and socially she described feeling much more confident. She was disappointed that her health complaints were not reversed and she continues to feel as much pain as she did prior to surgery. However she is now more mobile and is able to do the recommended physiotherapy exercises and attend the gym which she hopes will help alleviate some of the pain. Isabeau described looking forward to the future now and the possibility of having a romantic relationship, something she never expected to happen.

The interview with Isabeau lasted one hour and four minutes. Out of all the people I interviewed, Isabeau's weight loss surgery was the most recent. Isabeau came across as being very self aware and described doing a lot of mental preparation before having surgery. She found the support group helpful in facilitating this process and spoke with great warmth about the support received from group members. Isabeau was very hopeful and enthusiastic about what the future might hold for her.

Results of the group analysis

A group analysis was conducted to explore individual participants' personal experience of the bariatric surgery journey, with a focus on preparation for the subsequent physical and psychological changes. Please refer to Appendix IX for individual participant master themes and super-ordinate themes. The results of the group analysis is outlined in Table 9 which details the frequency of these themes across the seven participants.

Table 9: Frequency of the master themes and super-ordinate themes across the seven participants

		Participant						
Master theme	**Super-ordinate theme**	**Claire**	**Ann**	**Josie**	**Brian**	**Lucy**	**Floyd**	**Isabeau**
Lead up to surgery	Making sense of becoming overweight	✓	✓	×	✓	✓	✓	✓
	Deciding to have surgery	✓	✓	×	✓	✓	✓	✓
	Fear	✓	×	✓	×	✓	✓	✓
Preparing for surgery	From the horse's mouth	✓	✓	✓	✓	✓	✓	✓
	I want to know everything…or do I?	✓	✓	×	✓	✓	✓	✓
	But no-one told me	×	✓	✓	×	×	✓	×
Relationship with food	Food as a coping strategy	×	✓	×	×	✓	✓	✓
	The last supper	✓	✓	×	×	×	✓	×
	Food rules	✓	✓	✓	✓	✓	✓	✓
Changing relationships	Romantic relationships	✓	✓	✓	✓	✓	✓	✓
	Family dynamics	✓	✓	×	✓	✓	✓	✓
Identity	Experiencing loss	✓	×	×	×	×	✓	×
	Feeling disappointed	✓	✓	×	×	✓	✓	✓
	Fear of weight regain	×	✓	✓	✓	✓	✓	✓
	Head still catching up	✓	✓	×	✓	×	✓	✓
	Discovering the new me	✓	✓	✓	✓	✓	×	✓

Lead up to surgery

The *Lead up to surgery* master theme relates to participants' reflections on their personal journey leading up to the point at which they decided to have surgery and the feelings of fear associated with undergoing surgery.

Making sense of becoming overweight

During the interview, six participants spoke about trying to make sense of how and why they became overweight. Some participants searched for biological explanations and questioned the contribution of genetics. This explanation brought with it a sense of powerlessness and hopelessness over their weight. The extent to which this feeling of powerlessness was an accurate reflection of their actual power to change their weight is unclear. For some participants, genetics was one of a range of possible ways they made sense of becoming overweight, suggesting that their sense of powerlessness may fluctuate over time. Understanding weight in terms of genetics provided an external locus of control, which could serve to protect the individual by reducing the sense of responsibility and associated feelings of guilt, shame, blame and failure:

> *"I have been big all my life so I didn't perhaps know how else to live. I mean my sister is not overweight at all, she has always been thin. My dad is thin. It is only since my mum has got older that she has got bigger, so we don't really know. I do have a cousin who is exactly the same as me and two aunts." (Ann, p.13)*

> *"You could say my mum was big, my grandma was big, most of the family are big in proportion, you could say it is genes." (Floyd, p.40)*

Some participants described how their lifestyle changed with age and became more sedentary:

> *"When you are younger you do more sport, you do more activities, as you start giving those up and you are getting into work, marriage, family life, these things take a back seat. You tend to become more of a couch potato than anything else." (Floyd, p.40)*

Isabeau and Floyd believe their weight had a protective function and served to protect them from external threats. This belief may increase Isabeau and Floyd's risk of feeling more vulnerable after weight loss:

> *"For me with relationships I used my weight as a barrier and a buffer and a shield from things that frightened me in life." (Isabeau, p.31)*

"I know how much I shovelled in and I know I did very little exercise and…the thought of being big and protective, I could live with." (Floyd, p.40)

Deciding to have surgery

Many participants described a lifelong battle with their weight. They spoke about trying to lose weight using different interventions, such as diet, exercise, and medication throughout their lives. They described feeling desperate to lose weight and after many unsuccessful attempts, they viewed surgery as being their only option:

"I thought the only option I had was to sort of really be strong at my doctors and lay it on thick…I went in to see him and I broke down. I just said look I am going to commit hara-kiri, my wife's leaving me and I just don't want to live any more." (Brian, p.3)

"Yes, it's the desperation. I mean the last straw for me was, I was 25 years old and not really leaving the house." (Ann, p.12)

For some participants, the effects they believed their weight had on their physical and psychological health seemed to be major motivational factors for having surgery. Some participants spoke about facing a premature death due to weight-related health problems. There was a real sense of hopelessness in relation to previous weight loss attempts, and the future outlook without surgical intervention. Such factors seemed to trigger their help seeking behavior and their decisions to hand over control to the 'experts':

"I had got to my lowest of my low by this time and realised I was going to die a fat bloke earlier than anticipated." (Floyd, p.2)

"I have done all the diets. Weight Watchers, all of them and I just got to the stage where, you know, it was affecting my health and I was frightened of not seeing my kids grow up." (Brian, p.2)

Isabeau spoke about her low mood being the driving force behind her decision to have surgery, and her health concerns being secondary. This indicates that Isabeau held a health belief that her low mood was linked to her weight and that losing weight would improve her mood:

"I think my misery drove me to have the surgery a lot quicker than what my actual health did and the fear of my health down the line drove me to have that surgery quicker or pushed to have the surgery a lot quicker." (Isabeau, p.35)

Some participants spoke about experiences in which obesity had made them victims of humiliation. Although none of them made a direct link between these experiences and their decision to have surgery, it may have influenced it:

"When I was fat I remember I run across this road and a guy shouted out about being a fat bitch. 'Get out of the way you fat bitch or you will get run over', and it really upset me because he said that." (Claire, p.15)

"We queued up long enough for this ride and I wasn't my heaviest at the time, but I was big quite big and we got to the front of the queue and this queue was massive…and we got in and this bar wouldn't come down and lock in on me. I have never felt so embarrassed as much in my life because it was a case of 'I am sorry, we can't', and having to walk out in front of all those people, that was a big thing." (Floyd, p.26)

Fear

A recurrent theme in the participants' accounts is fear of death during surgery itself. Floyd and Lucy both wrote letters to be given to their loved ones in the event that they should pass away during surgery:

"Well, I wrote stuff down and I said if owt should happen I want this and I want that and I want the other." (Floyd, p.6)

"I was absolutely terrified to the point that I even wrote the kids letters because I did think I was going to die on the table." (Lucy, p.6)

Rather than expecting to feel liberated from weight and ill health following surgery, a few participants described feeling fearful of their new life after surgery. Although all participants decided to have weight loss surgery, their life within their bodies was familiar to them and that familiarity would change with the weight loss, a daunting prospect. The future is uncertain and

this destabalisation is likely to be unsettling and move people out of their comfort zone and into more anxiety provoking territory. They may question their ability to adapt to such change:

> *"Because it is just like a big step in an abyss you know. All the fears you have got you know they are just going to come and hit you and you just wait for it but you have to just bite that bullet in the end." (Isabeau, p.10)*

Preparing for surgery

The master theme *Preparing for surgery* relates to participants' experiences of the process of physical and psychological preparation for surgery. It is composed of; *from the horse's mouth*, *I want to know everything…or do I?* and *but no-one told me.*

From the horse's mouth

Most participants were very positive about the role the support group played in preparing them for, or supporting them through, weight loss surgery and life afterwards. Many participants commented on the honest and open nature of the group and the value of speaking to people who have been through similar experiences:

> *"No disrespect to the medical people, but they haven't been there and done that and bought the T shirt. They have only studied it and practised it, they haven't been through it." (Claire, p.24)*

> *"The support group is phenomenal. The encouragement, the information, you are getting it from the people who have been there, done that, got the T shirt." (Floyd, p.3).*

They spoke about the support group being a forum for getting information about the surgery from professionals as well as learning from those who share their personal experiences. Sharing this experiential knowledge can lead to a sense of belonging, reduced social isolation, and normalization. This knowledge is very different from the more theoretical knowledge a professional has.

I want to know everything…or do I?

For several participants, the amount of information they wanted prior to surgery seemed to fluctuate over time. Many were ambivalent about receiving information; there were times when they wanted to know as much information as possible and other times when they actively avoided information seeking. To keep the decisional balance in favor of having surgery, it may be that they sought out information that highlighted the benefits of their decision to have surgery and minimised information relating to the costs of having surgery. Information was available from multiple sources, for example professionals, internet, leaflets and peers. When Claire was first referred for surgery she avoided researching it because she did not want to hear about the risks:

> *"I didn't really look into it much because I didn't want to know, you only ever hear about the bad things and I didn't want to know about the bad things." (Claire, p.2)*

However, over time Claire moved to a more questioning stance and actively sought out information about the surgery:

> *"I went in and I had maybe 20 or 30 questions on this piece of paper which I had written down…I said to him, 'Look it is such a major thing I want to know. I want you to answer all these questions.' And I think he said he had had three deaths in the years that he had been doing it out of 100 people so I figured that wasn't bad going." (Claire, p.3)*

Ann, on the other hand, started searching for information but after watching a program showing surgery that went wrong, began avoiding information. She said, '*I am not going to watch these because I will just scare myself" (Ann, p.21).* According to protection motivation theory (Rogers, 1985; Floyd, Prentice-Dunn & Rogers, 2000) this is a maladaptive coping response to the risks of surgery. Ann described finding it difficult to hear information about the risks. Although the information was provided to her, she struggled to process it:

> *"They give you the speech about risks involved in operation, well there is a 1 in 200 chance that people of your weight will die, and 5 in 200 chance that you may have a stroke or a heart attack while on the table. You don't hear it. I was just like give me the*

piece of paper and I will sign it. I am not bothered. Just get me wheeled down there. They told me about medication but again you don't really hear it." (Ann, p.35)

Lucy and Floyd described wanting to know exactly what would happen to them before, during and after surgery. This would be regarded as an adaptive coping response in relation to protection motivation theory:

"I thought in my own mind, I had done all the research, I looked into it, I had studied it, I had pondered, I had done all the rest of it. I had done everything I needed to do prior to going. I knew what was coming, or thought I knew what was coming as much as I could." (Floyd, p.6).

"I had also gone on quite a few of the web sites, different web sites, just looking for different information. But I think the best thing I was given, I don't know if you have seen it, but the dietitians provided me with a booklet and it is like a bible and it does give you everything about you know." (Lucy, p.5).

But no-one told me

Three participants commented on information that was missing from their preparation for surgery. Ann had not been told what type of bariatric surgery she was having until the day she was due to have the procedure:

"She [dietitian] had asked me some questions and that and I said 'Can I stop you? Can you tell me what I am having done?' She [dietitian] looked through my notes and she said, 'I can't tell you. You are having weight loss surgery and that is all I can tell you.'" (Ann, p.20)

Josie spoke about having no knowledge of the gastric band adjustments (altering the amount of saline in the band) after surgery:

"I didn't realise until after that they didn't put any fill in the band. I didn't know. All it was was that they put the band in and it was just left to settle down and they wouldn't fill it until I think it was about three months after but I didn't realise that. I don't ever remember them saying that that was going to happen because I thought it was there and

it is doing something because I think that I wasn't really seeing anything in the weight loss." (Josie, p.16)

Relationship with food

The master theme *Relationship with food* captures the complex historical relationship that participants had with food, and how having surgery fundamentally changed their relationship with food. This master theme was relevant to all participants and was composed of three super-ordinate themes; *Food as a coping strategy*, *The last supper*, and *Food rules*.

Food as a coping strategy

Floyd, Isabeau and Ann described their relationship with food prior to surgery as an 'addiction' and compared it to other forms of addiction:

"I get stressed at work, I buy everyone a bun and then have one myself. And then you think you are justifying it by giving everyone else one. Oh look, there is three left…The only other way I can go is to start drinking heavily again or start smoking again…the only safe thing I can do is to eat. It is the safest option out of all of them." (Ann, p.62)

Participants spoke about using food as a coping strategy. Ann, Floyd and Lucy used food to manage the stress levels in their lives. Isabeau described turning to food whenever she felt that things were "out of control" in her life. It seems that many participants associate food with a sense of calmness and comfort:

"where previously you would turn to food as some sort of relief, you can't, although you try, and I am not going to lie, I do. You can't and I am glad in a way because it gives you that time to sit back and, hang on a minute, what are we doing, let's think about this." (Floyd, p.35)

Ann spoke about how she continues to feel tempted to use food as a coping strategy to manage anxiety and stress:

"I still eat when I am stressed, and I don't realise how much I am eating so you get into this vicious little cycle of, I have to make the decision of whether I want to do this or not which means I am anxious and stressed which means, as you have noticed, I live across

from the Tesco Express, and there is a BM just down the road in walking distance with cheap chocolate and things like that, so I will go and buy things that I know I shouldn't buy and then I will eat it and feel guilty and then I think I am putting weight on and get anxious and stressed and it all just starts again." (Ann, p.60)

The last supper

In preparation for weight loss surgery, patients are typically required to follow a very specific diet plan for two weeks prior to surgery to reduce the size of their liver. Participants spoke about their final meal before starting this diet:

"We went out for fish and chips the night before the diet started, this is my last fish and chips bum bum bum. And that was it, I got my head stuck into it." (Floyd, p.5)

Ann's account illustrates a tension between enjoying her last meal before her experience of eating changing forever, and managing the feelings of guilt that accompany this:

"I was making this sandwich you know you just have a final hurrah before you go on the liver diet and anyone who says they don't is lying. You have an Indian, you have a Chinese, you have a pizza because you think, 'I am never going to do this again so I am going to do it'. It is only normal and all the while you are eating you are thinking, 'I feel so guilty doing this,' because it is in your brain that you shouldn't be eating these foods because you have been on a diet all your life." (Ann, p.24).

Food rules

The stomach is much smaller after surgery and this requires significant changes in eating behaviour, and can introduce some unpleasant consequences of eating. After having weight loss surgery, patients follow a diet plan to gradually reintroduce the body to solid foods. Participants spoke about trying to work out a system that helped them to follow the food rules:

"The only thing is and which they drill into you is, even if you are not hungry have some protein, you must have protein, so I always, whatever I am eating, if it is cheese or chicken I will eat that first and then I will move on to pasta or rice or whatever and eat that last." (Lucy, p.24)

"Once we established the food side, and the drinking and the sipping, and not drinking prior to half an hour, once I had got all that in, it was right. It is the hassle of always looking at the clock and checking what can I have at what time. I can't have a drink yet because my tea will be here in ten minutes." (Floyd, p.19)

Isabeau spoke about regularly questioning her food and drink intake, and she compared the experience to being like a child again. In relation to having to live according to the rules of others, and occasionally being minded to rebel against the rules, the similarities are evident. However, a child and their food intake is the responsibility of their parent or carer, whereas Isabeau is responsible for her own food intake and therefore needs to work out how the rules apply to her and, more importantly, how to adjust her deeply ingrained eating habits and long-standing relationship with food. For Isabeau this was an overwhelming experience:

"you are always worrying about well, 'Should I be eating this? Should I be eating this amount? Should I not be eating this amount? Am I drinking too much milk? Am I not drinking enough milk?' You know? So you are always getting reassurance from them because it is like being a child again in a lot of ways. You are not sure about what you need to do in order to keep yourself well so that is always a bit daunting to begin with." (Isabeau, p.13)

Many participants spoke about being dissatisfied with the food they were given to eat whilst still in hospital. They spoke about the food rules they were expected to follow being broken by uninformed staff providing inappropriate meals for post-bariatric surgery patients:

"They brought me the biggest bowl of mashed potato you have ever seen in your life, no protein whatsoever. Bearing in mind your protein is your most important thing so I just had, like I say, I will sort my own diet now when I get home." (Lucy, p.9)

"They didn't know what to give you and you had to mash your own food up and stuff. It wasn't the fact that the food was bad it was that the food wasn't right, what they were giving you." (Claire, p.7)

Some participants spoke about how at times they struggled to adhere to the diet when faced with temptation. It seems that although food rules make logical sense, they don't always sit comfortably with their new digestive tract, making it more difficult to adhere to them:

> *"The arch enemy is bread and it always will be will bread but I dangled the carrot, what I should have done, and [my wife] will agree with me, is left bread well alone." (Floyd, p.23)*

> *"As daft as it sounds crisps were really easy to eat, but you have to be careful with crisps because it is fat, isn't it. Ice cream, really easy to eat, chocolate, easy to eat because of how it goes down but eat an apple and it just come straight back up again so it is really…but you find ways round it. That was my thinking. I couldn't eat an apple but I could eat melon." (Josie, p.18)*

Participants spoke about re-learning to eat, and using feedback from their bodies to inform their food choices. They described experiencing unpleasant consequences after eating, and a reduction in food intake due to the physically imposed limitations:

> *"I remember the first time eating something and it making me sick. I had gone out, had a few drinks and got a bit of chicken. I thought I will just get one piece and it just came straight back up again. It was just like a learning curve really. Learning what you can eat and what you can't eat." (Josie, p.17)*

> *"I am eating, just smaller portions. In the early stages I would have something and then I threw up but you know it wasn't a hardship. It was a learning curve on what I could and could not eat and how far I could push it." (Brian, p.22)*

Lucy has experienced dumping syndrome on several occasions which may have triggered an aversion to certain foods. She has learned only to experiment with new foods at home, and take foods she knows she can tolerate to work. This illustrates Lucy learning new responses and eating patterns:

> *"I make sure I have emergency stuff on my desk like cream crackers and a bit of cheese in the fridge at work just so that I can just nibble on things that I am absolutely safe with*

and don't affect me. If I am trying anything new, obviously I don't do it at work I do it at home on a weekend or something just to see how I go on." (Lucy, p.11)

Changing relationships

The *Changing relationships* master theme relates to the changing dynamics of relationships following surgery. For some participants, relationships were strengthened, whilst others deteriorated. For those participants who had children, increased mobility and energy seemed to have a positive influence on their physical interaction with their children, bringing them closer together. The master theme comprises *Romantic relationships* and *Family dynamics*.

Romantic relationships

Participants who were in a romantic relationship when they had weight loss surgery all spoke about their relationship changing in some way post-surgery. Claire and her husband stopped having sex and she struggled to make sense of this:

"I don't have sex with my husband. That's changed and it isn't because I don't find him attractive but it isn't because he's fat because he is quite a big man and it isn't because I have lost weight. I think that is just a normal age thing…But, when I was more saggy and stuff, I didn't like him to touch me because it was just, I just don't fancy sex and I don't know if it is something to do with the operation…it isn't because I have lost weight and I don't like the way that I look because I know [my husband] loves me no matter what I look like." (Claire, p.19)

In relational systems, although there can be subtle shifts in roles, typically there is resistance to major role changes. Some research has shown improvements in marriage following surgery and others have found an increase in conflict. In some relationships obesity serves to maintain a balance between the spouses. If the role of the non-obese spouse is to care for the obese spouse, the power is balanced and the spouse may experience secondary gains such as feeling needed and secure. Having weight loss surgery can shake the purpose and security of the relationship.

Lucy and Josie both separated from their long-term partners after surgery. Lucy had been with her husband since she was only 15 years old, and prior to surgery she felt she would never meet anyone else due to her weight:

"I chucked him out in January of this year…all of a sudden I started losing this weight and he didn't like that… our relationship really deteriorated in the six months after my operation… I think because of my confidence, I have met someone else since." (Lucy, p.15)

Josie spoke about going from feeling appalled by her body to feeling attractive and confident after surgery. As she grows more confident in her body-image, she may be better able to accept the possibility that someone else might find her attractive:

"Like with having sex. I always used to say to [ex partner], 'But why do you want to when I am disgusting?' But he wasn't disgusted in me, it was me that was disgusted in myself for how I looked. It didn't bother him at all but it bothered me and going from feeling like that to feeling quite good about myself but me and [ex partner], it didn't last and I met someone else and he made me feel good, he made me feel like I was a size 10 super model." (Josie, p.26)

Floyd's past experience of dieting having a negative impact on his relationship with his wife, generated concern for him that weight loss surgery would have a similar effect. It seems that obesity was a burden on Floyd's marriage:

"I have done these diets before and I know I have switched off and [wife] will tell you, I have switched off completely. It is like I wouldn't talk to no one, I would do my own thing and [wife] couldn't ever get through to me, I was in my own zone then…Why she is still with me, I don't know. I must have been an absolute swine." (Floyd, p.39)

However, his experience of weight loss surgery was rather different. He described having "*full support*" from his wife and a dramatic improvement in his mood and in their relationship. Similarly, Brian described his relationship with his wife as getting stronger since the surgery.

It may be that relationships in which the stability of the marital system depends on obesity deteriorate as someone in the relationship loses weight, whilst relationships in which obesity does not serve to maintain the relationship improve after surgery.

The two participants who were single when they had surgery, and at the time of interview (Ann and Isabeau), were both optimistic about starting a relationship in the future. Whereas prior to surgery Isabeau used her weight as a barrier to protect her from romantic

relationships, Ann expected others to be as disgusted with her body as she was, so thought a relationship was not an option:

> *"You start thinking to yourself, well maybe one day I will get married. Maybe one day I will have a child...There is that possibility that I could find somebody though and you go out to bars and things like that when people actually talk to you." (Ann, p.63)*

> *"I am quite looking forward to having an opportunity to maybe engage in a relationship with somebody…I am quite excited about having the opportunity of going out and finding Mr Right. So the fear factor for me has not developed in the way that I thought it was going to. And not having that fear is very liberating." (Isabeau, p.21)*

Family dynamics

All the participants with children commented on their changing relationships with their children following surgery. This centred on them being more healthy, independent, physically mobile, going out more, having more energy and motivation to do activities with their children:

> *"But you do things different with your kids because you can do things now all of a sudden." (Claire, p.21)*

Brian compared his relationship with his children before and after surgery:

> *"I was a couch potato. 'Are we going out on the bikes?' 'You go out on your bike, you do this or you go do that', or, 'Are you going to come out and have a game of football?' Well, I would stand in the middle and just kick it, whereas now we go off at weekend with the bikes…I think it has brought us a lot closer together as a family." (Brian, p.20)*

Lucy felt that her children found it irritating that she wanted to do more with them. Lucy's children were in their late teens so at a later developmental stage than the other participants' children. Lucy recognised that her children have experienced a number of recent changes (for example, their parents' relationship breaking down, Lucy's weight loss surgery, the introduction of Lucy's new partner), all of which impact on her relationship with them, and a change in roles:

"I think I nag them more. Well, more so, because I have so much more energy, I am doing different stuff and I am saying, 'Come on, come on' and I am like kind of want them to and they have said, 'Oh mum you didn't used to nag us like this', but they say it in jest, not in a horrible way." (Lucy, p.19)

Although Ann doesn't have any children of her own, she spoke about how having weight loss surgery has made it possible for her to engage in physical play with her niece and nephew, something she was unable to do prior to surgery:

"I wouldn't even be able to attempt to run after my niece and nephew if I hadn't have had this done. I went out to a bonfire the other night…I was galloping on the road with two little kids and I just wouldn't have been able to do it. You know, no chance at all I would be able to do it." (Ann, p.77)

Ann also spoke about a tension in her relationship with her mother, that has been developing since her weight loss surgery. Ann is concerned about her mother's health and mobility due to her weight, and tries to encourage her to make changes. This leaves her mother feeling upset and frustrated and puts strain on their relationship.

Ann and Isabeau both spoke about becoming closer to their sisters since having surgery:

"I don't want to say my relationship with my sister is better but it is different…this is going to sound a bit vomit inducing but we have bonded over fashion. Because now I have just changed my image…I had to make a decision about what I wanted to look like and I did it with my sister." (Ann, p.43)

"There is something that has changed in the relationship and we are much, much closer now. We engage each other in a much more sisterly way. I am more sensitive to her needs and she is more sensitive to mine and we tend to listen to each other more and that has been very special for me that having that lovely sisterly relationship." (Isabeau, p.29)

Isabeau described having a difficult relationship with her sister prior to surgery and she wondered about possible reasons for this change. She questioned whether *"the chip has been knocked off my shoulder"* or whether *"I was jealous of the fact that she is slim"*.

Identity

The master theme *Identity* relates to participants reflecting on who they are after surgery. Although they had surgery to lose weight, the weight formed part of their identity. The way participants defined themselves, their self-concept, their hopes, their fears, their strengths, their weaknesses and the emotional effects of having been obese for a long time are re-evaluated after weight loss. The master theme comprises *Experiencing loss*, *Feeling disappointed, Fear of weight regain*, *Head still catching up, and Discovering the new me.*

Experiencing loss

Although obesity had caused many participants to feel embarrassed and self-conscious, it also seemed to protect them against other challenges. Participants spoke about aspects of their pre-surgery self that they missed (for example, strength, food, breasts, protection and attention). Floyd spoke about losing his strength alongside his weight. This was difficult for Floyd to adjust to because he felt less able to do his job and more reliant on others. He also described feeling more vulnerable and less able to protect his family:

> *"Because it was coming off so fast, I was losing a lot of muscle tissue and I was weak. I mean I am a lot weaker now, obviously, because I am the size I am, but I was really weak and I was struggling at work…and suddenly I might rely on other things or other people to assist and that took some getting used to." (Floyd, p.30)*

Similarly Claire described feeling protected by her weight and therefore her weight loss brought feelings of vulnerability with it:

> *"I am still loud but am I slightly more reserved because I don't have my fat to cover me up any more." (Claire, p.17)*

Claire also spoke about missing her breasts and missing being able to eat large quantities of food:

> *"Your breasts disappear, I mean they are just empty sacks. I always had lovely big boobydoobs and I miss my boobydoobs." (Claire, p.15)*

"It is just shit because I miss, I do miss binging, I miss being able to go to the shop and buying a load of shit and eating it…You do miss parts of your old life, that is the psychological part of it that you have to sort out." (Claire, p.26)

Feeling disappointed

As well as talking a lot about positive changes following surgery, many spoke about feeling disappointed, particularly in relation to their body-image. Many expected to love their new body, but instead were disappointed with the excess skin they were left with:

"I thought I was prepared for how my body would look with the extra skin and stuff and I was like, 'I don't care about that, I just want to be healthy.' But actually I do care about that and that was quite shocking for me. I didn't realise what the psychological impact of having the extra skin would have, and how dissatisfied I am still with my body-image. So even though I have lost a lot of weight I am still dissatisfied with my body." (Isabeau, p.11)

"You get told to expect loose skin and things like that, and part of my head was like, nah, I am young, I am fine, I won't have anything… I was expecting that they were lying about the loose skin." (Ann, p.66)

Ann expected the weight loss surgery to "*fix everything*". However she found that the self doubts she had prior to surgery continued:

"I will never be someone who loves myself. It doesn't matter what size I am or anything like that, I am always going to be, I am not normal or I am not pretty in any way. I am not attractive to anybody else. I am not a nice person… you assume it is just going to fix everything." (Ann, p.15)

Similarly, Claire expected everything in her life to improve after losing weight but the daily tasks continued, her social life remained the same and she continued to feel unhappy about her physical appearance:

"Your life just isn't what you think it is going to be. You are still the same, it is just that you are thinner and it took a lot to get used to that because I was waiting for everybody

to knock on my door and say, 'Come on, let's go out and play'…I wanted to be stunning, and it is like all this weight has come off and I still don't feel stunning…if you feel shit about yourself prior to losing weight you will still feel shit. I still think I have a really ugly face." (Claire, p.25)

After surgery, Claire and Ann's beliefs about their weight being responsible for their problems were challenged. Once they lost weight, this explanation was no longer valid. Attributing life's challenges to weight, and the discrimination and stigma that comes with being overweight, can be seen as an esteem-saving strategy that ultimately interferes with personal growth.

Isabeau felt disappointed that the weight loss surgery did not improve her physical health:

"Some of the health conditions that I have got I thought would improve and some of the pain would be less but that hasn't happened…Yes, that is the only thing I probably had too much expectation there. That it would sort a lot of that out." (Isabeau, p.18)

Floyd, on the other hand, reduced his medication following surgery and is much more active and mobile:

"I am not on any Tramadol. I am not on Diclofenac. I took some Diclofenac because my back, my back, I still have an issue with my back, but 99% of the time now I don't take anything for pain relief as an anti-inflammatory." (Floyd, p.27)

Fear of weight regain

After losing a considerable amount of weight, many participants spoke about their fear of putting weight back on and returning to their pre-surgery weight:

"When you put that bit of weight back on, it's failed, hasn't it? I am going to go back to being that huge person and I can't go back to being that. I can't go back there again." (Ann, p.46)

"I think it just hit me months down the line. It hit me like a brick…Yes. I was putting weight on and I just thought, 'Shit I am putting weight on and I just can't get to 20 stone

again.', and I was panicking. I was having anxiety attacks, like three a day, maybe more." (Josie, p.22)

"What happens if it is a dream or what happens if I put weight on? That is the most terrifying thought that I have got, is what happens if for some reason I start to put weight on again and all this is taken away from me." (Isabeau, p.25)

Both male participants spoke about being unsure when to stop trying to lose weight and start working on weight maintenance. Both referred to their wives wanting them to stop losing weight before they felt ready. Some people find it difficult to stop losing weight and become so fearful of eating that they develop anorexia nervosa type behaviours:

"In myself I still feel big. I mean [wife] is now sort of saying, 'Enough is enough, you have lost enough, you will make yourself poorly.' Well I don't feel like I am poorly. I still feel fine." (Brian, p.30)

"When you are losing the weight and it is coming off and you think, 'Oh hang on', then suddenly you wake up and you think, 'Where is it going to end?' And then as it starts slowing down and then you think, 'Hang on a minute, I just want to try for a bit more, just a bit more.', and [wife] will say, 'No no, it is balancing itself out, this is where you are naturally.', 'No I just want to try for another 2 lb.'" (Floyd, p.35)

One hypothesis relating to their wives' behaviour could be that they felt threatened by their husbands' weight loss and new body shape. Another may be that they were looking out for their husbands and trying to protect them. It is interesting that the two women interviewed who were in relationships did not talk about their partners responding in similar ways.

Head still catching up

All the participants had been overweight for most of their lives. Following surgery they all lost a dramatic amount of weight in a relatively short period of time. However, they all felt their minds took a lot longer to catch up. It is likely that their negative self-schema had been defined by their weight and these did not automatically change with the weight loss; the psychological transition to match their new body weight seemed to take a lot of adjusting to. This

disconnection between the physical self and the psychological self-concept was a strange experience for participants:

> *"I turned to look and it was me looking at me in a mirror and I didn't recognise myself ...I think I am really fat and then I look in a mirror and think, 'Oh you're not.'" (Claire, p.14)*

> *"But in myself, I still feel big. I have had this conversation with [wife] and she said, 'But you're not.' I said, 'I know, but I have been big for 30 years and it is hard for me not to feel big.'" (Brian, p.28)*

Floyd spoke about experiences of perceptual distortion whereby he continues to see himself as being overweight when he looks in the mirror, even though he is not:

> *"This sounds weird, even to this day, I can look in the mirror and I can still see that 26 stone 8 lb bloke, I know I am not." (Floyd, p.29)*

Floyd spoke about the conflict he feels between his mind and body, where his mind is telling him to eat and his body is telling him to stop:

> *"Must empty fridge because then the fat person has popped on my shoulder saying 'eat everything'. At that point, as I say, it doesn't work because my body tells me it can't, but them thoughts are still there." (Floyd, p.54)*

Discovering the new me?

For many participants, as the weight dropped, their view of themselves started to change both physically and psychologically. Some started to question their identity after surgery and created a new image for themselves. Josie's confidence grew and she felt happier after surgery:

> *"I thought I would still be the same person, I would still be me. Not to change but I did. I changed quite a bit. I went from a no-confident person to being happy and confident." (Josie, p.33)*

Lucy, by contrast, felt her confidence relating to her body-image deteriorated:

"I have probably got less confidence now in terms of my body-image. You know when I was 21 stone I would go swimming, I didn't give a hoot who was looking at me. Now I would never get into a swimming costume. That is because of the skin." (Lucy, p.13)

Participants described having felt restricted in what they could wear prior to surgery because of their weight and only having a limited number of shops that catered for their size. Discovering their new identity and suddenly having the freedom to buy clothes from a wide range of shops was anxiety-provoking for some participants. Claire said she could, *"walk into a clothes shop and get a panic attack"* as she felt out of her *"comfort zone"*. Many participants spoke about constructing a new image for themselves through clothing. For some it seemed a liberating and exciting experience:

"I feel more feminine now. Because when you are overweight you wear clothes that fit, not that are pretty or anything like that. You wear what fits…So, for that aspect, socially, feeling more feminine and being able to dress more feminine has been really nice." (Isabeau, p.15)

"I used to wear black trousers and black tee shirt and a denim jacket all the time and a pair of black baseball boots, and I had so many variations of the same outfit. It was all black, there was nothing to it and because I had never been thin before, I had to find an image. I had to decide what I wanted to look like, what clothes I wanted to wear." (Ann, p.43)

Summary of findings

These findings provide an insight into seven individual patients' experience of bariatric surgery and whether they felt prepared for the physical and psychological changes and adjustments following surgery. Five master themes emerged from analysis of the data; lead up to surgery, preparing for surgery, relationship with food, changing relationships, and identity. Participants searched for explanations to help them understand why they became overweight. They spoke about what motivated them to have surgery and about their fears in relation to the risks associated with surgery and their fears for the future. In preparing for surgery participants spoke about the value of communicating with people who have had surgery. Some participants spoke about being ambivalent about how much information they wanted to know about the surgery

beforehand, others wanted to know as much as possible. All participants spoke about their relationship with food. For some, food was used as a coping strategy to regulate their emotions. All participants spoke about monitoring their food intake after surgery and their experience of following and breaking the food rules. Participants reflected on their experience of changing relationships after surgery, some relationships becoming stronger and other deteriorating. Finally, participants reflected on their experience of their changing identity post-surgery.

Reflections on interviewing and the process of analysis

In my experience of the interviews there were multiple commonalities and differences between me and the participants. In terms of gender and age, I am similar to Ann and Josie, and I certainly felt a connection on these grounds. During the interview Brian highlighted possible gender differences in relation to weight loss surgery. For example, he questioned whether excess skin is more difficult for females to live with, stating "*I think it is harder for a woman on that side than a man*". I wonder whether he would have made such comparisons with a male researcher. In terms of my weight, I sometimes felt that I was positioned as an outsider. For example, Floyd made some references to my weight during the interview. He described sitting on the aeroplane next to someone "*as petite as yourself*" and he spoke about imagining that person thinking "*oh my God do I have to sit next to that!*" I wonder whether Floyd made assumptions about my views and the impact that might have had on the interview.

The stories of all participants will have been influenced by the questions asked, and by the decision I made regarding when to move on to another, or probe an issue further. I tried to remain aware of this and in my introduction to the interview I explained it as being a bit like a one sided conversation and I emphasised that I was interested in their experiences and what was important to them, rather than what I felt might be important. In reality, it is likely that my own preconceptions and assumptions shaped our interactions during the interview. Having researched the area prior to carrying out the interviews I had ideas about what I might expect to find. For example, I knew that some people experience relationship breakdowns following weight loss surgery, so I was at risk of assuming that a relationship breakdown was related to the weight loss surgery.

There were times during the interviews, for example, when participants became upset, when I became aware of moving away from my role as a researcher and towards my more familiar role as a psychologist in clinical training. I may have been more responsive to any signs of distress due to my clinical training. I felt that it was important to bring in my clinical skills at such times to help manage the situation sensitively. On the other hand, it is possible that I

responded in ways which were over-empathic and maybe even leading. I found this dual role quite challenging at times.

The biggest challenge for me was condensing the volume of information without losing the depth, richness and complexities of the participants' stories. I was aware that whilst I conducted individual analyses, only the group analysis would be presented in this thesis. This increased the challenge for me as I did not want the individual stories to be lost in the group analysis. This concern influenced my decision to give relatively detailed pen portraits and also to include the individual master themes and super-ordinate themes in Appendix IX.

CHAPTER 4 - DISCUSSION

This chapter considers the findings of the questionnaire and the interviews in relation to the research questions. I will explore how the findings fit within the wider research literature, and links to psychological theories will be made. I will then explore the clinical implications of the main findings and recommend areas for further research. I will discuss the strengths and limitations of the research and reflect on my experience of the research process.

What type of preparation do bariatric surgery patients receive?

The questionnaire data shows that before surgery, most participants had met with their surgeon and dietitian and discussed the surgical procedure, risks and side effects, recovery process and changes in diet and eating behaviour (procedural, sensory and behavioural information). Over half the sample received information on the physical changes post-surgery (for example, sagging skin and dumping syndrome). Overall, participants found this pre-operative information useful. Research shows that pre-operative information about surgery in the form of procedural and behavioural information results in significant benefits in terms of recovery (Johnston & Vogele, 1993). This finding could be explained by the adherence model (Stanton, 1987) whereby communication between a health professional and a patient results in enhanced patient knowledge and satisfaction, thus improving adherence to the recommended medical regime and improving recovery rates. In the present study the adherence model may be less relevant to the surgery itself, however it is relevant to diet and eating behaviours post-surgery.

Ley's cognitive model of communication emphasises patient understanding, recall and satisfaction. According to this model, adherence can be predicted by a combination of patient satisfaction with the consultation process, understanding the information provided, and recall of this information. Recall is influenced by a range of factors, for example, anxiety, medical knowledge, intellectual level, and the use of repetition (Ley, 1981; 1989). Such factors are important to consider in the development of weight loss surgery preparation programs.

It seems that within this sample, participants received enough information from health professionals to allow them to make an informed decision about having weight loss surgery and to sign informed consent forms. The more detailed qualitative information gathered from the interviews supports this, although there were some exceptions. For example, Ann did not know what type of weight loss surgery she was having until the day before surgery and Floyd was unaware that he had to have a Warfarin injection before surgery, which caused him distress. Information can be provided through different methods of communication. Following a review of 10 studies, Ley (1998) concluded that written communication in health care is often not

noticed, not read, not believed, not understood, and not remembered. Despite this, Ley (1998) found that communication frequently leads to gains in patient satisfaction and understanding, and sometimes leads to gains in adherence and outcome. The qualitative responses provided some support for this, with participants referring to helpful written information. However, Floyd spoke about his dislike of reading and how his preferred method of research was speaking to individuals who have had weight loss surgery.

The questionnaire data showed that the internet and bariatric support groups were the most popular methods of researching bariatric surgery. Information on bariatric surgery is widely available on the internet. Madan, Tichansky, Speck and Turman (2005) found that 85% (N=127) of bariatric patients used the internet to search for bariatric information. Using the internet as a preparation method is also likely to include peer support, as many bariatric websites have chat rooms available in which people can exchange experiences and information. I will discuss the benefits of social support later in this chapter. As participants were recruited through the internet it would be surprising if this internet literate sample had not relied to a large degree on this preparation resource.

The qualitative data highlights the value of communicating with peers who are at various stages of the weight loss surgery journey, such as those attending bariatric support groups. This is consistent with previous research that highlights the importance of peer support in preparing patients for surgery (Kulik, Moore & Mahler, 1993). Furthermore, there is evidence that attendance at weight loss surgery support groups can help to provide continuing education after surgery and is associated with better weight loss (Hildebrandt, 1998; Livhits, Mercado, Yermilov, Parikh, Duston, Mehran, et al., 2010).

What areas would bariatric surgery patients have wanted more information on?

The analysis shows that many participants commented that psychological preparation for surgery was missing and that in retrospect they would have liked more information on it. Participants described wanting more information on the impact that weight loss can have on areas such as identity, self-image, self-esteem, confidence, relationships and social life. Although the literature highlights many positive changes for patients following bariatric surgery, it is also evident that many of the changes generate tension for patients and are difficult to adjust to (Bocchieri, Meana & Fisher, 2002). In line with this, Ogden, Clementi and Aylwin (2006) found that bariatric surgery patients struggled to adjust to the psychological changes. For example, changes in relationships, new appearance, self-perceptions and conflicting

emotions regarding new reactions from others. Similarly Kinzl, Trefalt, Fiala, Hotter, Biebl and Aigner (2001) found that patients struggled to adjust to their new body image.

The interviews allowed greater exploration into the areas of preparation that were missing. Participants spoke about feeling so desperate to have surgery that the type or quality of the information provided would not have made a difference to their decision. This finding is interesting as it differs from our understanding of the traditional preparation for surgery literature which emphasises providing information to inform decision making. Although the information may not have changed their decision to have surgery, the results from this study indicate that participants still felt they needed the information. On reflection, participants spoke about the social and emotional changes experienced post-surgery and that some of these were difficult to adjust to. It seems that they needed preparation information to help them tolerate and adapt to the consequences of surgery, rather than to inform decision making. This finding extends our understanding of the construct of preparation. It suggests that preparation goes beyond decision making, through to the longer-term consequences of the decision. The literature emphasises the issues affecting understanding and recall of information, but not adjustment to social and emotional factors following surgery (Ley, 1998; Meana & Ricciardi, 2008). For example, Miller, Brody and Summerton (1988) highlight a distinction between 'monitors' and 'blunters' in relation to information processing. They emphasise that high levels of anxiety can act as a barrier to really listening and processing information provided.

How do people experience the bariatric surgery journey?

The seven participants provided a rich understanding of their individual bariatric surgery journeys. All participants experienced changes in relationships. Some participants experienced improvements in their romantic relationships, while others experienced deterioration, which sometimes led to break up. Research suggests that obesity may play a role in many relationships (Meana & Ricciardi, 2008). For example, in some cases obesity serves to maintain a power balance within relationships. The family systems perspective suggests that relationship patterns contribute to the cause and maintenance of obesity and can also maintain the system of the relationship (Fishmann-Havstad & Marston, 1984). Family systems theory (Bowen, 1978; Kerr & Bowen, 1988) emphasises that something happening at one level of the system can have a huge effect on another. Human beings live within a system and can be better understood when viewed within the context of dynamic, interconnected human interactions and relationships. Within these relational systems we also have roles, as do our partners, families and friends. Although the system is never static, major role changes are often met with

resistance. According to this view, a change to one role leads to a change in the rest and will lead to a readjustment to the whole relational system. It is likely that weight loss surgery will have an impact on the family homeostasis and will lead to role change within the family system. Some families welcome this change whereas others are more resistant. Research on the impact of major weight loss on romantic relationships has found mixed results. Some studies have found improvements in marital quality after surgery (Camps, Zervos, Goode & Rosemurgy, 1996) while others have shown no significant change (Porter & Wampler, 2000) or an increase in conflict (Hafner, 1991).

Participants' accounts also highlight changes in family relationships. For some participants their family relationships were strengthened, particularly their relationships with their children. Physical activity within the family had increased and the sense of being a burden to their family had decreased. Some participants spoke about increased tension in their family relationships (e.g. Ann's concern about her mother's weight-related health). Many participants were surprised by these changes and felt that preparation was lacking here.

All seven participants experienced changes in their identity following surgery. They spoke about feeling a discrepancy between the physical bodily changes and their psychological self-concept. It seems that the negative self-schema, defined largely by weight, continues to exist despite the rapid weight loss and changing body shape. Five participants' found they continued to be disappointed with aspects of their lives. This was surprising for them as they had attributed the difficulties in their lives to their weight, and expected such difficulties to decrease with their weight loss.

Prior to surgery some participants engaged in emotional eating; they would eat as an attempt to escape negative emotions. Eating to regulate emotions can be explained using operant conditioning whereby using food as a reward, or to temporarily reduce stress, will associate food with a more pleasurable state, making it more likely to become a repeated behaviour. Emotional eating has been cited as a common problem for those that are severely obese. Canetti, Bachar and Berry (2002) examined the relationship between emotions and food intake and concluded that negative emotions in particular, increase food intake among normal weight as well as overweight people. They concluded that the influence of emotions on eating behaviour is stronger in obese individuals. Walfish (2004) found that 40% of a sample of weight loss surgery patients could be identified as emotional eaters. He recommended treatment to address this problem to improve outcomes in terms of long term maintenance of weight loss. In line with this, Canetti, Berry and Elizur (2009) suggested that those who emotionally eat may have poorer post-operative outcome as surgical intervention does not

change this behaviour. Ward, Ramsey and Treasure (2000) reviewed the attachment research in eating disorders such as anorexia and bulimia, and concluded that insecure attachment is common in eating disordered populations. Maunder and Hunter (2001) proposed that overeating, leading to obesity, may be a way of managing insecure attachment. The link between eating and emotion seemed to be strong for the participants in this study. For example Ann and Lucy both spoke about eating to reduce their stress levels. After surgery their habitual coping strategy (eating) could no longer be used if they were going to lose weight and maintain the weight loss. With potentially more stressful situations after surgery (for example, Ann accepted a promotion at work and Lucy's relationship with her husband ended), participants needed to find new ways to manage their emotions. Floyd openly spoke about his increased use of alcohol as an alternative coping strategy.

What sources of information have been helpful in preparing bariatric surgery patients for surgery?

When considering the different sources of information and support, some questionnaire participants commented on the value of getting information from individuals who have experienced weight loss surgery themselves. All seven interview participants also spoke about their experiences of getting information '*from the horse's mouth*'. In general participants spoke about the support group being an invaluable source of preparation for surgery. Josie spoke about her attendance at a previous support group as not being a particularly helpful experience. However, she contrasted that experience to her experience of the support group she currently attends, which she finds really helpful. Josie believes that she did not connect with any members of the first group as the experiences of others seemed different to her own. Group cohesiveness and universality are two of Yalom's eleven therapeutic factors in groups (Yalom & Leszcz, 2005). It seems that Josie did not experience universality (meeting others with similar experiences) or group cohesiveness (a sense of belonging to a group with similar problems) and this may have contributed to her leaving the first support group.

Weight loss surgery support groups provide experiential knowledge, defined as specialised knowledge obtained through living through the same experiences (Borkman, 1999). This differs from the theoretical knowledge held by health professionals about weight loss surgery. As Claire put it *"no disrespect to the medical people, but they haven't been there and done that and bought the T shirt. They have only studied it and practised it, they haven't been through it."* Although the delivery of weight loss support groups vary, many adopt a format which combines the theoretical knowledge of a professional by inviting them as a guest speaker,

and an open circle inviting group members to share their experiences. Sharing experiences allows validation and normalisation to occur. In contrast, there is a risk of invalidation occurring if group members fail to attend to each other's experiences or fail to connect with, or understand their experiences (Helgeson & Gottlieb, 2000).

The social support offered in such groups provides opportunities for social networking, and creates a sense of feeling less isolated and more understood (Kyrouz, Humphreys & Loomis, 2002). The stress-buffering model suggests that social support buffers against stressors (Cohen & Wills, 1985). Social support can enhance an individual's ability to cope with surgery and recovery, and can enhance self-efficacy.

Clinical implications

One implication for clinical work that arises from this study is that preparation for weight loss surgery is an important part of the journey. Currently, preparation regarding the mechanics of what will happen before and during surgery, and changes in diet and eating behaviour before and after surgery, is well established. Such information is often provided during pre-surgery appointments with different professionals such as surgeons, dietitians and bariatric specialist nurses. However, more preparation is needed for the psychological changes and adjustments experienced throughout the journey. Despite limited research in this area, the literature acknowledges the psychological tensions that bariatric surgery patients go through. All bariatric surgery patients should be offered pre-surgery appointments with a psychologist to prepare them for the emotional challenges ahead. Implementing this may be difficult in many hospitals due to limited resources, particularly in the current economic climate. Group interventions to prepare patients for weight loss surgery, facilitated by a psychologist could be an efficient and cost effective way of meeting this need. It would provide opportunities for social inclusion and a supportive social environment for patients. The psychological approaches that have an evidence base for weight loss generally still apply for those who have had weight loss surgery. For example, NICE (2006) highlights the cognitive and behavioural interventions found to improve outcome. Attending a group would give patients the opportunity to meet peers going through similar experiences, something this study highlights as being important to patients. The group could include a session involving people who have had weight loss surgery to share their experiential knowledge of the psychological challenges they have encountered.

This study shows that bariatric surgery patients seek information from a variety of sources in anticipation of their surgery. The popularity of the internet could be considered when

developing any preparation programs. Preparation groups could be enhanced by signposting patients to existing online support networks or by developing one focussing on psychological preparation.

The high value placed on networking with peers who have had bariatric surgery should be acknowledged. One of the participants suggested that hospitals could have a 'buddy' system whereby all weight loss surgery candidates are given the opportunity to contact someone who has had surgery, to share their experiences and answer any questions. Given that this research highlighted the importance of meeting people who have been through the experience, it would be interesting to pilot and evaluate this idea in a clinical setting. It could help validate and normalise some experiences. However, developing a 'buddy' system would require careful planning. Consideration should be given to confidentiality, boundaries (for example, not providing medical advice), on what basis to pair a 'buddy' to a patient (for example, they could be matched by surgical procedure), and whether there is a suitable length of time between having surgery and becoming a 'buddy'.

Future research

This research highlighted changes in family dynamics and relationships following weight loss surgery. Exploring the experiences of family members and partners of people who have had weight loss surgery may be helpful in understanding these changes from different perspectives. This would allow 'triangulation', whereby perspectives obtained from different sources could be compared to provide a more in-depth understanding. This information would help inform the development of the content of preparation programs and help us consider who it might be important to involve in the preparation. For example, maybe family members could be invited to some or all of the preparation sessions.

This research provided some useful insights into the experiences of people who attend weight loss surgery support groups. It would be helpful to explore experiences of preparation from individuals who decide not to attend support groups. I am interested in the type of preparation they receive and what their experience of the weight loss surgery journey is, including recovery. This research could follow the same methodology as the present study and use the same questionnaire and interview schedule. This would allow comparisons between the two studies to be made. Individuals who have not attended weight loss surgery support groups could be recruited. This could be achieved by giving all weight loss surgery candidates at specific hospitals an information sheet and consent form at a pre-surgery appointment. This method of recruitment could be used for both the interviews and the questionnaire. The

interviews would lend themselves well to an IPA approach, aimed at understanding the individuals' personal experience of the weight loss surgery journey. The quantitative data from the questionnaire could be analysed using frequencies and descriptive statistics. Depending on sample size, statistical tests could be used to compare the responses of specific groups (e.g. type of information received by gastric band patients compared to bypass). The qualitative comments from the questionnaire could be analysed using thematic analysis.

It would be useful to evaluate the preparatory information received by bariatric surgery patients from health professionals and evaluate the preparatory information shared in support groups. Comparisons between the two contexts in which information is received could then be made. This would help tailor services to meet the needs of patients and would highlight any gaps in current service delivery. For example, it may be that patients who attend support groups receive preparatory information that is missing from that received from health professionals, thereby highlighting a gap in service delivery.

The literature suggests that preparation is linked to better recovery rates as measured by weight loss, weight loss maintenance, psychosocial functioning, quality of life, mental health status and physical health status. This research shows that when people do receive information, in general they find it useful. However it does not look at the information received in relation to recovery rates. It would be interesting to look at whether the preparation information is associated with improved recovery rates. This could be done using an adapted version of the questionnaire used in this study for participants to complete after surgery. Recovery rates could be measured by using weight and other standardised measures of quality of life (e.g. Gothenburg Quality of Life Scale, Bariatric Analysis and Reporting Outcome System) and health status (e.g. Clinical Outcomes in Routine Evaluation, 36-item short-form health survey). Measures could be completed pre-surgery and at various points in time post-surgery (e.g. six, 12 and 18 months).

Strengths and limitations of the present research

Strengths

Using a mixed methods approach increased the comprehensiveness of the overall findings by showing how the qualitative data provided possible explanations for the quantitative data. It added insights and understanding that may have been missed if only one method was used. Using mixed methods provided both a broad and a deep understanding of preparation for weight loss surgery. The questionnaire data provided the breadth of information about the type of preparation weight loss surgery patients receive throughout the country. In addition to looking

at the medical and dietary information provided, this research looked at psychological information. Research into psychological preparation for weight loss surgery is sparse. The qualitative questionnaire responses provided more depth on what information participants felt were lacking from their preparation for bariatric surgery, and what information was considered most important. The sample size for the questionnaire is large enough for the findings to be generalisable. The interviews provided rich in-depth accounts of seven individuals about their personal experience of the bariatric surgery journey and the preparation they received. The mixed methods approach increased the methodological rigour as findings from both methods could be checked for consistency.

This research has explored an under-researched area. With increasing rates of obesity and increasing numbers of bariatric surgery procedures being carried out, it is evermore important for patients to be prepared for surgery and their continued journey after surgery. This research identifies gaps in the preparation received and the sources of information participants have found helpful. It highlights the life changing and psychologically challenging journey many patients experience. This research could be used to inform the development of preparation programs for bariatric surgery patients.

Limitations

A limitation of study 1 (questionnaire) is the small sample size relative to the pool of potential responders via the WLSinfo website which claims to have over thirteen thousand members. However, it is likely that some members are inactive, so the number of members actively using WLSinfo when the questionnaire was available (between 4th November 2011 and 16th January 2012) may have been much less. In addition, some members of WLSinfo would not have met the inclusion criteria, for example, those considering or waiting for surgery.

The length of time between having surgery and completing the questionnaire varied considerably. Participants who had bariatric surgery a long time ago may have forgotten some of the information they received prior to surgery. For those who had the surgery more recently, they may not have experienced some of the post-surgery changes at the time of completing the questionnaire, but may do so at a later date. The proportion of people who have reported personal experience of changes is therefore likely to be an under representation. In line with this, Meana and Ricciardi (2008) found that weight loss surgery patients typically follow a five stage journey, lasting over 18 months. Each stage presents different challenges to recovery. It is important to consider that the preparation received by bariatric surgery patients will change

over time. The findings of this questionnaire provide a snapshot of the reported preparation received between June 2004 and January 2012.

A limitation of study 2 (interviews) could be that all participants were recruited from the same support group. Their experiences of preparation may therefore overlap, for example, two participants spoke about their experience of watching a video clip of a surgical procedure. However, it could be argued that the homogeneity of the sample is positive for IPA because participants share the experience of a particular event, condition or situation. This helps the researcher to develop a more generalised understanding of the phenomenon (Willig, 2008). Given that all interview participants' attended a support group and all the questionnaire participants were members of WLSinfo or BOSPA support groups, it is perhaps not surprising that the importance of having contact with someone who has had weight loss surgery was highlighted.

Final reflections

My experience of using a mixed methods approach was interesting and challenging. The process of ongoing reflection has raised my awareness of my assumptions and preconceptions. This has helped me to listen to the stories of the participants and allow their stories to emerge in the themes, rather than from my assumptions, values, experiences and interests. I recognise that it is impossible for my analysis not to be influenced by these factors, and I wonder whether my analysis has been more descriptive than interpretative due to me being overly concerned with trying to avoid imposing my own ideas onto the participants.

Analysing the quantitative elements of the questionnaire responses required a different set of skills compared to the interviews. I found switching between the two rather challenging. The ongoing reflections helped with this process, particularly when analysing the qualitative questionnaire responses. Using a mixed methods approach made it possible to give breadth and depth to this research and has allowed me to develop different research skills. Overall, I have enjoyed the experience of using a mixed methods approach, however I have found it time consuming and challenging to complete in the time available.

Conclusion

This study explored individual experiences of preparation for bariatric surgery. Analysis of the questionnaires revealed that preparation on relationship and psychological changes was lacking. Analysis of the interviews supported this finding and provided a unique insight into seven participants' experiences of the bariatric surgery journey. These experiences gave rise to five

master themes of *lead up to surgery*, *preparing for surgery*, *relationship with food*, *changing relationships* and *identity*. Bariatric surgery support groups and the internet were identified as being popular methods of preparing for surgery. This study found that communicating with others who have had bariatric surgery is a valuable method of support and preparation.

The findings of this study indicate that preparation for bariatric surgery patients should include; medical information provided by medical staff (e.g. what the surgical procedure involves, possible complications and side effects), dietary information provided by dietitians (e.g. pre and post-surgery diet, what to expect in the days, weeks and months following surgery, information on dietary supplements, managing temptation, managing social eating, weight management and diet plans), and information regarding psychological changes provided by psychologists (e.g. identifying expectations, factors contributing to obesity, changes in relationships, work life and identity, managing emotions, finding alternative coping strategies, understanding the role of food and weight, experiencing loss and disappointment). It could be delivered in a group setting to encourage peer support throughout the journey. Significant others could attend specific sessions on changing relationships. Post-surgery patients could attend the group to share their personal experiences. Written information could be provided to supplement each session and group members could be directed to other sources of information and support (e.g. WLSinfo and BOSPA). Each group member could be assigned a 'buddy' who has had weight loss surgery to contact for support. After surgery a continuation of the group should be offered to patients as part of their post surgical support package of care.

REFERENCES

Abbott, J., & Abbott, P. (1995). Psychological and cardiovascular predictors of anaesthesia induction, operative and post-operative complications in minor gynaecological surgery. *British Journal of Clinical Psychology,* 34, 613-625.

Adams, T., Gress, R., Smith, S., Halverson, R., Simper, S., Rosamond, W., et al. (2007). Long-term mortality after gastric bypass surgery. *The New England Journal of Medicine*, 357, 753-61.

Alden, J. (1977). Gastric and jejuno-ileal bypass: a comparison in the treatment of morbid obesity. *Archives of Surgery,* 112, 799-806.

Algazi, L. P. (2000). Transactions in a Support Group Meeting: A Case Study. *Obesity Surgery,* 10(2), 186-191.

Anderson, E. A. (1987). Preoperative Preparation for Cardiac Surgery Facilitates Recovery, Reduces Psychological Distress, and Reduces the Incidence of Acute Postoperative Hypertension. *Journal of Consulting and Clinical Psychology*, 55(4), 513-520.

Apple, R. F., Lock, J., & Peebles, R. (2006). *Preparing for Weight Loss Surgery: Therapist Guide* (1st ed.). New York, NY: Oxford University Press

Atlantis, E., & Baker, M. (2008). Obesity effects on depression: systematic review of epidemiological studies. *International Journal of Obesity*, 32(6), 881-891.

Batty, G., Shipley, M., Jarrett, R., Breeze, E., Marmot, M., & Smith D. (2006). Obesity and overweight in relation to disease specific mortality in men with and without existing coronary heart disease in London: The original Whitehall study. *Heart*, 92, 886-92.

Berghofer, A., Pischon, T., Reinhold, T., Apovian, C., Sharma, A. & Willich, S. (2008). Obesity prevalence from a European perspective: A systematic review. *BMC Public Health*, 8, 200.

Bloom, S. (2007). Hormonal regulation of appetite. *Obesity Reviews*, 8(1), 63-65.

Bocchieri, L., Meana, M., & Fisher, B. (2002). Perceived psychosocial outcomes of gastric bypass surgery: A qualitative study. *Obesity Surgery*, 12, 781-788.

Borkman, T. (1999). *Understanding self-help/mutual aid: Experiential learning in the commons*. New Brunswick: Rutgers University Press.

Bornstein, S. R., Schuppenies, A., Wong, M., & Licinio, J. (2006). Approaching the shared biology of obesity and depression: the stress axis as the locus of gene-environment interactions. *Mol Psychiatry*, 11(10), 892-902.

Bowen, M. (1978). *Family Therapy in Clinical Practice*. Northvale, NJ: Jason Aronson.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77–101.

British Psychological Society (2011). *Obesity in the UK: A psychological perspective*. Obesity Working Group: Leicester.

Buchwald, H., & Buchwald, J. (2002). Evolution of operative procedures for the management of morbid obesity 1950-2000. *Obesity Surgery*, 12, 705-717.

Butland, B., Jebb, S., Kopelman, P., McPherson, K., Thomas, S., Mardell, J. & Parry, V. (2007). *Tackling obesities: Future choices* – project report (2nd Ed). London: Foresight programme of the government office for science.

Camps, M., Zervos, E., Goode, S., & Rosemurgy, A. (1996). Impact of bariatric surgery on body image perception and sexuality in morbidly obese patients and their partners. *Obesity Surgery*, 6(4), 356-360.

Canetti, L., Bachar, E., & Berry, E. (2002). Food and emotion. *Behavioural Processes*, 60 (2), 1-10.

Canetti, L., Berry, E., & Elizur, Y. (2009). Psychosocial predictors of weight loss and psychological adjustment following bariatric surgery and a weight-loss program: the mediating role of emotional eating. *International Journal of Eating Disorders*, 42 (2), 109-117.

Chaput, J., Doucet, É., & Tremblay, A. (2012). Obesity: a disease or a biological adaptation? An update. *Obesity Reviews*. Unpublished Journal

Cohen, S., & Wills, T. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98 (2), 310-357.

Collazo-Clavell, M. L., Clark, M. M., McAlpine, D. E., & Jensen, M. D. (2006). Assessment and Preparation of Patients for Bariatric Surgery. *Mayo Clinic Proceedings*, 81(10 Suppl), S11 -S17.

Coulter, A. (1997). Partnerships with patients: the pros and cons of shared clinical decision-making. *Journal of Health Services Research & Policy*, 2(2), 112-121.

Dent, M., Chrisopoulos, S., Mulhall, C., & Ridler, C. (2010). *Bariatric surgery for obesity*. Oxford: National Obesity Observatory.

Department of Health (2007). *Foresight. Tackling Obesities: Future Choices Project.* UK Government Office of Science.

Dymek, M. P., le Grange, D., Neven, K., & Alverdy, J. (2001). Quality of Life and Psychosocial Adjustment in Patients after Roux-en-Y Gastric Report Bypass: A Brief Report. *Obesity Surgery*, 11(1), 32-39.

Elliott, R., Fischer, C., & Rennie, D. (1999). Evolving guidelines for publication of qualitative research studies in psychology and related fields. *British Journal of Clinical Psychology*, 38, 215-229.

Fabricatore, A., Crerand, C., Wadden, T., Sarwer, D., & Krasucki, J. (2006). How Do Mental Health Professionals Evaluate Candidates for Bariatric Surgery? Survey Results. *Obesity Surgery*, 16(5), 567-573.

Fabricatore, A. N., & Wadden, T. A. (2003). Psychological Functioning of Obese Individuals. *Diabetes Spectrum*, 16(4), 245 -252.

Fairburn, C. G. (1995). *Overcoming Binge Eating* (1st ed.). New York, NY: Guilford Press.

Fishmann-Havstad, L., & Marston, A. (1984). Weight loss as an aspect of family emotion and process. *British Journal of Clinical Psychology*, 23, 265-271.

Floyd, D., Prentice-Dunn, S., & Rogers, R. (2000). A meta-analysis of research on protection motivation theory. *Journal of Applied Social Psychology*, 30(2), 407-429.

Fox, K. R., & Hillsdon, M. (2007). Physical activity and obesity. *Obesity Reviews*, 8(1), 115-121.

Gatineau, M., & Dent, M. (2011). *Obesity and Mental Health*. Oxford: National Obesity Observatory.

Giusti, V., De Lucia, A., Di Vetta, V., Calmes, J., Heraief, E., Gaillard, R., et al. (2004). Impact of preoperative teaching on surgical option of patients qualifying for bariatric surgery. *Obesity Surgery*, 14, 1241-1246.

Greenberg, J. A. (2006). Correcting biases in estimates of mortality attributable to obesity. *Obesity Surgery,* 14, 2071-9.

Greenberg, I., Perna, F., Kaplan, M., & Sullivan, M. A. (2005). Behavioral and Psychological Factors in the Assessment and Treatment of Obesity Surgery Patients. *Obesity Surgery*, 13(2), 244-249.

Grilo, C., Wilfley, D., Brownell, K. & Rodin, J. (1994). Teasing, body image, and self-esteem in a clinical sample of obese women. *Addictive Behaviors*, 27 (4), 561-573.

Guisado, M. and Vaz Leal, F. (2003). Psychopathological differences between morbidly obese binge eaters and non-binge eaters after bariatric surgery. *Eating and Weight Disorders,* 8(4), 315-318

Hafner, J. (1991). Morbid obesity: Effects on the marital system of weight loss after gastric restriction. *Psychotherapy and Psychosomatics*, 56, 162-166.

Helgeson, V., & Gottlieb, B. (2000). Support groups. In S. Cohen, L.Underwood, & B. Gottlieb, *Social support measurement and intervention: A guide for health and social scientists.* New York: Oxford University Press.

Herpertz, S., Kielmann, R., Wolf, A., Langkafel, M., Senf, W., & Hebebrand, J. (2003). Does obesity surgery improve psychosocial functioning? A systematic review. *International Journal of Obesity*, 27, 1300-1314.

Heshka, S., Anderson, J. W., Atkinson, R. L., Greenway, F. L., Hill, J. O., Phinney, S. D., et al. (2003). Weight Loss With Self-help Compared With a Structured Commercial Program. *JAMA: The Journal of the American Medical Association*, 289(14), 1792 -1798.

Hildebrandt, S. E. (1998). Effects of Participation in Bariatric Support Group After Roux-en-Y Gastric Bypass. *Obesity Surgery*, 8(5), 535-542.

Holzwarth, R., Huber, D., Majkrazak, A., & Tareen, B. (2002). Outcome of gastric bypass patients. *Obesity Surgery*, 12, 261-4.

International Obesity Taskforce (IOTF) Slides. (2007). *Trends in Obesity (Europe)*. London: IOTF. Retrieved October 25, 2011 from http://www.iotf.org/database/trendsinObesityPrevalence.htm.

James, W. (2008). The epidemiology of obesity: the size of the problem. *Journal of Internal Medicine*, 263, 336-352.

Janis, I. (1958). Psychological stress: *Psychoanalytic and behavioural studies of surgical patients*. New York: Wiley.

Jebb, S. A. (2007). Dietary determinants of obesity. *Obesity Reviews*, 8(1), 93-97.

Johnson, J. E., & Leventhal, H. (1974). Effects of accurate expectations and behavioral instructions on reactions during a noxious medical examination. *Journal of Personality and Social Psychology*, 29(5), 710-718.

Johnston, M., & Vogele, C. (1993). Benefits of psychological preparation for surgery: A meta-analysis. *Annals of Behavioral Medicine, 15 (4),* 245-256.

Jones, A., Bentham, G., Foster, C., Hillsdon, M., & Panter, J (2007). *Obesogenic environments. Evidence review. Foresight Tackling Obesities: Future Choices.* London: Foresights programme of the government office for science.

Kalarchian, M. A., Marcus, M. D., Levine, M. D., Courcoulas, A. P., Pilkonis, P. A., Ringham, R. M., et al. (2007). Psychiatric Disorders Among Bariatric Surgery Candidates: Relationship to Obesity and Functional Health Status. *American Journal of Psychiatry*, 164(2), 328-334.

Karlsson, J., Sjostrom, L., & Sullivan, M. (1998). Swedish Obesity Study (SOS) – and intervention study of obesity. Two year follow up of health related quality of life (HRQL) and eating behaviour after gastric surgery for severe obesity. *International Journal of Obesity,* 22, 113-126.

Kerr, M., & Bowen, M. (1988). *Family Evaluation*. New York: Norton.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*, 62(6), 593-602.

Kinzl, J., Trefalt, E., Fiala, M., Hotter, A., Biebl, W., & Aigner, F. (2001). Partnership, sexuality, and sexual disorders in morbidly obese women: consequences of weight loss after gastric banding. *Obesity Surgery*, 11, 455-458.

Kulik, J. A., & Mahler, H. I. (1987). Effects of Preoperative Roommate Assignment on Preoperative Anxiety and Recovery From Coronary-Bypass Surgery. *Health Psychology*, 6(6), 525-543.

Kulik, J. A., Moore, P. J., & Mahler, H. I. (1993). Stress and Affiliation: Hospital Roommate Effects on Preoperative Anxiety and Social Interaction. *Health Psychology*, 12(2), 118-124.

Kyrouz, E., Humphreys, K., & Loomis, C. (2002). A review of research on the effectiveness of self-help mutual aid groups. In B. White & E. Madara, *American self-help group clearinghouse self-help group sourcebook* (7th ed., p71-86). Cedat Knolls, NJ: American self-help group clearinghouse.

Leigh, J. M., Walker, J., & Janaganathan, P. (1977). Effect of preoperative anaesthetic visit on anxiety. *British Medical Journal*, 2, 987 -989.

Ley, P. (1981). Professional non-compliance: a neglected problem. *British Journal of Clinical Psychology*, 20, 151-154.

Ley, P. (1988). *Communicating with Patients*. New York, NY: Croom Helm.

Ley, P. (1989). Improving patients' understanding, recall, satisfaction and compliance, in A. Broome, *Health Psychology*. London: Chapman & Hall.

Ley, P. (1998). The use and improvement of written communication in mental health care and promotion. *Psychology, Health & Medicine*, 3 (1), 19-53.

Livhits, M., Mercado, C., Yermilov, I., Parikh, J., Dutson, E., Mehran, A., et al. (2010). Is social support associated with greater weight loss after bariatric surgery? A systematic review. *Obesity Reviews*, 12 (2), 142-148.

Luppino, F., de Wit, L., Bouvy, P., Stijnen, T., Cuijpers, P., Penninx, B., & Zitman, F. G. (2010). Overweight, Obesity, and Depression: A Systematic Review and Meta-analysis of Longitudinal Studies. *Arch Gen Psychiatry*, 67(3), 220-229.

Madan, A., Tichansky, D., Speck, K., & Turman, K. (2005). Internet use in the bariatric surgery patient population. *Obesity Surgery*, 15(8), 1144-1147.

Mahler, H. I., & Kulik, J. A. (1991). Health care involvement preferences and social-emotional recovery of male coronary-artery-bypass patients. *Health Psychology*, 10(6), 399-408.

Maio, G., Manstead, A., Verplanken, B, Stoebe, W., Abraham, C., & Sheeran, P., et al. (2007). *Lifestyle Change. Evidence Review. Foresight Tackling Obesities: Future Choices.* London: Foresights programme of the government office for science.

Manyande, A., Chayen, S., Priyakumar, P., Smith, C., Hayes, M., Higgins, D., et al. (1992). Anxiety and endocrine responses to surgery: paradoxical effects of preoperative relaxation training. *Psychosom Med*, 54(3), 275-287.

Marcus, J. D., & Elkins, G. R. (2004). Development of a Model for a Structured Support Group for Patients following Bariatric Surgery. *Obesity Surgery*, 14(1), 103-106.

Markowitz, S., Friedman, M. A., & Arent, S. M. (2008). Understanding the Relation Between Obesity and Depression: Causal Mechanisms and Implications for Treatment. *Clinical Psychology: Science and Practice*, 15(1), 1-20.

Marteau, T., Kidd, J., Cuddeford, L., & Walker, P. (1996). Reducing anxiety in women referred for colposcopy using an information booklet. *British Journal of Health Psychology,* 1, 181-189.

Mason, E., & Ito, C. (1967). Gastric bypass in obesity. *Surgical Clinics of North America*, 47, 1345-52.

Mathews, A., & Ridgeway, V. (1981). Personality and surgical recovery: a review. *British Journal of Clinical Psychology,* 20, 243-260.

Mathews, A., & Ridgeway, V. (1984). Psychological preparation for surgery. In A Steptoe & A Mathews, (Eds.). (1984). *Health care and human behaviour*. Academic press: London. 231-259.

Maunder, R., & Hunter, J. (2001). Attachment and psychosomatic medicine: Developmental contributions to stress and disease. *Psychosomatic Medicine*, 63, 556-567.

Meana, M., & Ricciardi, L. (2008). *Obesity Surgery: Stories of Altered Lives*. Reno, NV: University of Nevada Press.

Miller, S. M., Brody, D. S., & Summerton, J. (1988). Styles of Coping With Threat: Implications for Health. *Journal of Personality and Social Psychology*, 54(1), 142-148.

Mitchell, J., & Steffen, K. (2009). The interface between eating disorders and bariatric surgery. *Eating Disorders Review*, 20(1), 16

National Audit Office (2001). *Tackling Obesity in England*. London: The Stationary Office

National Institute for Health and Clinical Excellence (2006). *Obesity: Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children*. London: National Institute for Health and Clinical Excellence.

National Institute for Health and Clinical Excellence (2007). *Anxiety (amended). Management of anxiety (panic disorder, with or without agoraphobia and generalised anxiety disorder) in adults in primary, secondary and community care*. London: National Institute for Health and Clinical Excellence.

Newson, L., & Flint, B. (2011). *Applied psychology and obesity management. Obesity in the UK: A psychological perspective. Obesity working group*. Leicester: British Psychological Society.

Ogden, J. (2010). *The Psychology of Eating: From Healthy to Disordered Behavior*. Chichester: Wiley-Blackwell

Ogden, J., Clementi, C., & Aylwin, S. (2006). The impact of obesity surgery and the paradox of control: A qualitative study. *Psychology and Health*, 21(2), 273-293.

Ogden, J., Clementi, C., Aylwin, S., & Patel, A. (2005). Exploring the impact of obesity surgery on patients health status: a quantitative and qualitative study. *Obesity Surgery*, 15, 266-272.

Picot, J., Jones, J., Colquitt, J., Gospodarevskaya, E., Loveman, E., Baxter, L., & Clegg, A. (2009). *The clinical effectiveness and cost-effectiveness of bariatric (weight loss) surgery for obesity: a systematic review and economic evaluation.* Health Technology Assessment NIHR HTA programme. 13(41), 1-190, 215-357, iii-iv.

Porter, L., & Wampler, R. (2000). Adjustment to rapid weight loss. *Families, Systems, & Health*, 18(1), 35-54.

Powell, R., Bruce, J., Johnston, M., Vögele, C., Scott, N., Shehmar, M., & Roberts, T. (2010). Psychological preparation and postoperative outcomes for adults undergoing surgery under general anaesthesia. In The Cochrane Collaboration & R. Powell (Eds.), *Cochrane Database of Systematic Reviews*. Chichester, UK: John Wiley & Sons, Ltd.

Powell, R., McKee, L., & Bruce, J. (2009). Information and behavioural instruction along the health-care pathway: the perspective of people undergoing hernia repair surgery and the role of formal and informal information sources. *Health Expectations*. 12, 49-159.

Prentice, A. (2007). Are defects in energy expenditure involved in the causation of obesity? *Obesity Reviews*, 8(1), 89-91.

Ridgeway, V., & Mathews, A. (1982). Psychological preparation for surgery: a comparison of methods. *The British Journal of Clinical Psychology / the British Psychological Society*, 21 (4), 271-280.

Roehling, M. V. (1999). Weight-based discrimination in employment: psychological and legal aspects. *Personnel Psychology*, 52(4), 969-1016.

Rogers, R. (1985). Attitude change and information integration in fear appeals. *Psychological reports,* 56, 179-82.

Rolls, E. T. (2007). Understanding the mechanisms of food intake and obesity. *Obesity Reviews*, 8(1), 67-72.

Salameh, J. (2006). Bariatric surgery: past and present. *American Journal of the Medical Sciences*, 331(4), 194-200.

Salmon, P., Evans, R., & Humphrey, D. E. (1986). Anxiety and endocrine changes in surgical patients. *The British Journal of Clinical Psychology / the British Psychological Society*, 25 (2), 135-141.

Salmon, P. (2000). *Psychology of Medicine and Surgery: A Guide for Psychologists, Counsellors, Nurses and Doctors*. Chichester: Wiley-Blackwell.

Scott, K. M., Bruffaerts, R., Simon, G. E., Alonso, J., Angermeyer, M., de Girolamo, G., et al. (2008). Obesity and mental disorders in the general population: results from the world mental health surveys. *International Journal of Obesity*, 32(1), 192-200.

Seidell, J., & Flegal, K. (1997). Assessing obesity: classification and epidemiology. *British Medical Bulletin*, 53 (2), 238-252.

Sharpe, B., Parry, V., Dubhthaigh, R., & Barter, T. (2007). *Future trends in technology and their impact on obesity. Foresight Tackling Obesities: Future Choices*. London: Foresights programme of the government office for science.

Shaw, K. A., O'Rourke, P., Del Mar, C., & Kenardy, J. (2009). Psychological interventions for overweight or obesity. In The Cochrane Collaboration & K. A. Shaw (Eds.), *Cochrane Database of Systematic Reviews*. Chichester, UK: John Wiley & Sons, Ltd.

Slimming World™. (2012). Retrieved May 7, 2012 from http://www.slimmingworld.com

Smith, J. (2003). *Qualitative Psychology: A practical guide to research methods*. London: Sage publications.

Smith, J., Flowers, D. P., & Larkin, M. (2009). *Interpretative Phenomenological Analysis: Theory, Method and Research* (Reprint.). Sage Publications Ltd.

Smith, J., Jarman, M., & Osborn, M. (1999). Doing Interpretative Phenomenological Analysis. In M. Murray & K. Chamberlain (Eds.). (1999). *Qualitative Health Psychology: Theories & Methods*. London: Sage Publications.

Sogg, S., & Mori, D. L. (2009). Psychosocial Evaluation for Bariatric Surgery: The Boston Interview and Opportunities for Intervention. *Obesity Surgery*, 19(3), 369-377.

Sogg, S., & Mori, D. L. (2008). Revising the Boston Interview: incorporating new knowledge and experience. *Surgery for Obesity and Related Diseases*, 4(3), 455-463.

Stanton, A. (1987). Determinants of adherence to medical regiments by hypertensive patients. *Journal of Behavioural Medicine*, 10, 377-394.

Stunkard, A. J., Faith, M. S., & Allison, K. C. (2003). Depression and obesity. *Biological Psychiatry*, 54(3), 330-337.

Vaidya, V. (2006). Psychosocial aspects of obesity. *Advances in psychosomatic medicine*, 27, 73-85.

Vallis, T., Butler, G., Perey, B., Veldhuyzen, S., Konok, G., & MacDonald, A. (2001). The role of psychological functioning in morbid obesity and its treatment with gastroplasty. *Obesity Surgery*, 11, 716-725.

Vallis, T. M., & Ross, M. A. (1993). The Role of Psychological Factors in Bariatric Surgery for Morbid Obesity: Identification of Psychological Predictors of Success. *Obesity Surgery*, 3(4), 346-359.

Walfish, S. (2004). Self-assessed emotional factors contributing to increased weight gain in pre-surgical bariatric patients. *Obesity Surgery*, 14, 1402-1405.

Ward, A., Ramsay, R., & Treasure, J. (2000). Attachment research in eating disorders. *British Journal of Medical Psychology*, 73, 35-51.

Wareham, N. (2007). Physical activity and obesity prevention. *Obesity Reviews*, 8(1), 109-114.

Weight Watchers™. (2012). Retrieved May 7, 2012 from http://www.weightwatchers.co.uk

Williams, J., Jones, J. R., Workhoven, M. N., & Williams, B. (1975). The Psychological Control of Preoperative Anxiety. *Psychophysiology*, 12(1), 50-54.

Williams, J., Watts, F. N., MacLeod, C. M., & Mathews, A. (1997). *Cognitive Psychology and Emotional Disorders* (2nd ed.). Chichester: Wiley-Blackwell.

Willig, C. (2008). *Introducing Qualitative Research in Psychology* (2nd ed.). Berkshire: Open University Press.

Wilson, J. F. (1981). Behavioral preparation for surgery: Benefit or harm? *Journal of Behavioral Medicine*, 4(1), 79-102.

World Health Organisation (2000). *Obesity: preventing and managing the global epidemic.* Report of a WHO Consultation. WHO Technical Report Series 894.

Yalom, I., & Leszcz, M. (2005). *The theory and practice of group psychotherapy*, (5th ed.). New York: Basic Books.

Yardley, L. (2008). Demonstrating validity in qualitative psychology. *Qualitative psychology: A practical guide to research methods*, 2, 235–251.

APPENDIX

Appendix I: Demographic data for questionnaire responses

Table 10: Main demographics for participants who completed the questionnaire compared to those who failed to complete it

		Completers (N=148)		Incompleters (N=32)	
	Responses	**N**	**(%)**	**N**	**(%)**
Gender	Male	18	(12.2)	6	(18.8)
	Female	130	(87.8)	26	(81.3)
Marital status	Divorced	13	(8.8)	3	(9.4)
	Relationship	110	(74.3)	25	(78.2)
	Separated	7	(4.7)	0	(0)
	Single	16	(10.8)	4	(12.5)
	Widowed	2	(1.4)	0	(0)
UK region	East Midlands	7	(4.7)	2	(6.3)
	North East England	7	(4.7)	2	(6.3)
	North West England	14	(9.5)	2	(6.3)
	South East England	23	(15.5)	6	(18.8)
	South West England	38	(25.7)	5	(15.6)
	West Midlands	6	(4.1)	0	(0)
	Yorkshire and the Humber	41	(27.7)	4	(12.5)
	Other	12	(8.3)	11	(34.3)
Nationality	UK	141	(95.2)	29	(90.6)
	Other	7	(4.8)	3	(9.4)
WLS>once	Yes	13	(8.8)	2	(6.3)
	No	135	(91.2)	30	(93.8)
Type of surgery	Gastric band	20	(13.5)	8	(25.0)
	Roux-en Y gastric bypass	108	(73.0)	18	(56.3)
	Sleeve gastrectomy	9	(6.1)	4	(12.5)
	Other	11	(7.4)	2	(6.3)
Funding	NHS	110	(74.3)	19	(59.4)
	Private	38	(25.7)	13	(40.6)
Discuss with Professionals (multiple responses)	Anaesthetist	110	(74.3)	18	(58.0)
	Bariatric specialist nurse	94	(63.5)	17	(54.8)
	Dietitian	125	(84.5)	18	(58.0)
	GP	106	(71.6)	20	(65.5)
	Plastic surgeon	2	(1.4)	0	(0)
	Psychologist	32	(21.6)	5	(16.1)
	Surgeon	139	(93.9)	26	(83.9)
	Other	21	(14.2)	2	(6.5)
Research	Books	48	(32.9)	10	(35.7)
	Internet	146	(100.0)	25	(89.3)
	Bariatric support groups	107	(73.3)	17	(60.7)
	Friends/family or other social contacts	58	(39.7)	9	(32.1)
	Other	13	(8.9)	0	(0)

Demographics of incompleters

Thirty two people began to complete the questionnaire but failed to finish it. On closer examination the demographic data for those who completed the questionnaire were very similar those who failed to finish it. There was a slightly higher proportion of incompleters who privately funded their surgery (40.6%) and less incompleters reported discussing their forthcoming surgery with a dietitian (58%). Only two participants dropped out whilst completing the demographic data on the questionnaire. A further 15 dropped out at question 16 (different parts of the weight loss surgery process). A further 13 participants dropped out between question 18 and 23. Two participants dropped out on the final section, which asked for qualitative comments about their reflections on the preparation they received.

Table 11: Age, height and weight for questionnaire completers

	Completers (N=140)			**Incompleters(N=32)**		
	Range	**Mean**	**SD**	**Range**	**Mean**	**SD**
Age (years)	25-68	46.6	8.0	22-64	46.6	9.7
Height (cm)	152-193	167.2	7.9	152-185	166.9	8.4
Pre-surgery weight (kg)	92.7-323.0	151.5	33.7	95.0-253.0	138.1	30.7
Post-surgery weight (kg)	50.8-240.0	99.6	30.0	54.4-149.2	97.2	25.3
IMD score	3.53-69.96	22.88	14.91	7.86-69.96	26.67	17.67

Complete data - 148

Date of surgery 23/6/2004-7/1/2012

IMD score (1=most deprived) (28/148 postcodes incomplete so IMD score not computed)

Incomplete data - 32

Date of surgery 8/8/2004-14/11/2011

IMD score (1=most deprived) (7/32 postcodes incomplete so IMD score not computed)

1 missing (discuss with professionals)

1 missing (research)

Weight Loss Surgery

UNIVERSITY OF LEEDS

Edit this page

Information about the research

You are invited to take part in a research project looking at preparation for weight loss surgery. We are interested in what information you received prior to having weight loss surgery, who provided this information, how useful it was and what information was missing.

This short survey is open to anyone over the age of 18 who has had weight loss surgery. It will take approximately 10 minutes to complete. The survey does contain some potentially sensitive questions. Please ensure that you are in a space in which you feel comfortable before continuing to complete the survey.

All responses will be anonymous, kept strictly confidential and stored securely. The individual data will only be seen by members of the research team. The results will be grouped together when reporting findings.

You can withdraw from the research at any time, without giving a reason.

You can move past a question if you do not wish to answer it.

If you become concerned about your health when completing this survey, please contact your GP for support.

If you have any questions or comments, please contact me using the details below.

Thank you for your time.

Please note that once you have clicked on the CONTINUE button at the bottom of each page you cannot return to review or amend that page.

Rachael Noble
Psychologist in Clinical Training

Leeds Institute of Health Sciences
Faculty of Medicine and Health
Charles Thackrah Building
University of Leeds
101 Clarendon Road
Leeds LS2 9LJ

umrn@leeds.ac.uk

Consent

I understand that my participation is voluntary and that I am free to withdraw from the survey at any time during completion, without giving a reason.

I understand that if I require further information about the research project or the survey, I can contact the research team via e-mail on umrn@leeds.ac.uk or at the address provided at the end of the survey.

I have read and understood the information provided on the previous page and by submitting this survey I agree to take part in the research project.

I understand that all responses are anonymous and will be kept confidential.

By clicking on Continue I agree to take part in the research project.

Continue >

Edit this page

This section asks about you and your weight loss surgery.

PERSONAL DETAILS

1. Please select your gender

- ○ Male ○ Female

2. Please select your age

Select an answer

3. What is your current marital status?

- ○ Civil partnership
- ○ Cohabiting
- ○ Divorced
- ○ Married
- ○ Separated
- ○ Single
- ○ Widowed

4. Which UK region do you live in?

- ○ East Midlands
- ○ East of England
- ○ Greater London
- ○ North East England
- ○ North West England
- ○ Northern Ireland
- ○ Scotland
- ○ South East England
- ○ South West England
- ○ Wales
- ○ West Midlands
- ○ Yorkshire and the Humber
- ○ Other *(please specify)*:

5. What is your postcode?

6. Which country best describes your nationality?

Select an answer

If you selected Other, please specify:

7. What is your height?

ABOUT YOUR WEIGHT LOSS SURGERY

8. Have you had weight loss surgery more than once?

○ No ○ Yes

If no, please answer the following questions based on your only experience of weight loss surgery.

If yes, please answer the following questions based on your most recent experience of weight loss surgery.

9. What type of weight loss surgery did you have?

Select an answer

If you selected Other, please specify:

10. How much did you weigh **before** surgery?

11. How much do you weigh **now**?

12. What date was your weight loss surgery?

(DD-MM-YYYY)

13. How was your weight loss surgery funded?

○ NHS ○ Private

Before undergoing surgery, people meet with different health professionals to talk about what the surgery involves, the procedure, possible risks, likely outcomes, possible side effects, the process of recovery from the surgery and so on. This is all part of **preparation** for surgery. We would like to find out about the experiences you had of preparation for weight loss surgery.

The next section asks about which professionals you met with **before your surgery** and whether you carried out your own research into the surgery.

ABOUT PREPARATION

14. **Prior to having weight loss surgery,** which of the following professionals did you see to discuss the forthcoming surgery?
(select all that apply)

- ☐ Anaesthetist
- ☐ Bariatric Specialist Nurse
- ☐ Dietician
- ☐ GP
- ☐ Plastic Surgeon
- ☐ Psychologist
- ☐ Surgeon
- ☐ Other *(please specify)*:

15. Did you do your own research about weight loss surgery prior to having surgery?

○ No ○ Yes

If yes, what methods did you use to carry out your research? *(select all that apply)*

- ☐ Books
- ☐ Internet (e.g. weight loss surgery websites such as WLSinfo or BOSPA)
- ☐ Bariatric support groups
- ☐ Friends, family or other social contacts
- ☐ Other *(please specify)*:

People experience many different and sometimes unexpected changes after weight loss surgery. The next four sections ask you about what information you received **prior to** having weight loss surgery to prepare you for such changes, how useful you found the information and whether you personally experienced such changes.

DIFFERENT PARTS OF THE WEIGHT LOSS SURGERY PROCESS

16. Prior to surgery, did you receive information on the following *different parts* of the weight loss surgery process? If you received information, please rate the extent to which it was useful to you. Also, specify whether you personally experienced the following different parts.

More Info

	Prior to surgery, did you receive information on the following?		If you received information, how useful was it?					Did you personally experience the following different parts?	
	No	Yes	Not at all useful	Not very useful	A little useful	Very useful	Extremely useful	No	Yes
a. Admission procedures	○	○	○	○	○	○	○	○	○
b. Anaesthesia and risks	○	○	○	○	○	○	○	○	○
c. Surgery itself and risks	○	○	○	○	○	○	○	○	○
d. Discharge from hospital	○	○	○	○	○	○	○	○	○
e. Recovery process	○	○	○	○	○	○	○	○	○
f. Pain management techniques	○	○	○	○	○	○	○	○	○

17. You may have experienced a different part of the weight loss surgery process not mentioned above. If so, please specify below and state whether you received information about it prior to surgery. If you received information, please rate the extent to which it was useful to you.

	Please type any other parts of the weight loss surgery process you experienced	Prior to surgery, did you receive information on it?		If you received information, how useful was it?				
		No	Yes	Not at all useful	Not very useful	A little useful	Very useful	Extremely useful
a. Other 1		○	○	○	○	○	○	○
b. Other 2		○	○	○	○	○	○	○
c. Other 3		○	○	○	○	○	○	○

PHYSICAL CHANGES POST SURGERY

18. Prior to surgery, did you receive information on the following *physical changes* which may occur post surgery? If you received information, please rate the extent to which it was useful to you. Also, specify whether you personally experienced the following changes?

More Info

	Prior to surgery, did you receive information on the following?		If you received information, how useful was it?					Did you personally experience the following changes?	
	No	Yes	Not at all useful	Not very useful	A little useful	Very useful	Extremely useful	No	Yes
a. Loose or sagging skin	○	○	○	○	○	○	○	○	○
b. Body shape	○	○	○	○	○	○	○	○	○
c. Hair loss	○	○	○	○	○	○	○	○	○
d. Dry skin	○	○	○	○	○	○	○	○	○
e. Swollen ankles	○	○	○	○	○	○	○	○	○
f. Wound infections	○	○	○	○	○	○	○	○	○
g. Dumping syndrome (e.g. feeling hungry, dizzy, shaky and generally unwell after eating)	○	○	○	○	○	○	○	○	○
h. Health improvements (e.g. diabetes, heart condition, joint pain)	○	○	○	○	○	○	○	○	○
i. Vomiting	○	○	○	○	○	○	○	○	○
j. Feeling nauseous	○	○	○	○	○	○	○	○	○
k. Bringing up mucus	○	○	○	○	○	○	○	○	○
l. Excessive wind/flatulance	○	○	○	○	○	○	○	○	○
m. Diarrhoea	○	○	○	○	○	○	○	○	○
n. Constipation	○	○	○	○	○	○	○	○	○

19. You may have experienced one or more different physical changes post surgery not mentioned above. If so, please specify below and state whether you received information about it prior to surgery. If you received information, please rate the extent to which it was useful to you.

	Please type any other physical changes you experienced post surgery	Prior to surgery, did you receive information on it?		If you received information, how useful was it?				
		No	Yes	Not at all useful	Not very useful	A little useful	Very useful	Extremely useful
a. Other 1		○	○	○	○	○	○	○
b. Other 2		○	○	○	○	○	○	○
c. Other 3		○	○	○	○	○	○	○

CHANGES IN DIET AND EATING BEHAVIOUR POST SURGERY

20. Prior to surgery, did you receive information on the following changes in *diet and eating behaviour* which may occur post surgery? If you received information, please rate the extent to it was useful to you. Also, specify whether you personally experienced the following changes.

More Info

	Prior to surgery, did you receive information on the following?		If you received information, how useful was it?					Did you personally experience the following changes?	
	No	Yes	Not at all useful	Not very useful	A little useful	Very useful	Extremely useful	No	Yes
a. Pre-surgery diet (e.g. restrictive low calorie diet for 1 week prior to surgery)	○	○	○	○	○	○	○	○	○
b. Post-surgery diet (e.g. pureed food stage, soft and crispy food stage, normal texture stage)	○	○	○	○	○	○	○	○	○
c. Restricting food intake	○	○	○	○	○	○	○	○	○
d. Poor tolerance to certain foods and liquids (e.g. difficulty digesting foods such as bread and meat)	○	○	○	○	○	○	○	○	○
e. Intolerance to certain foods and liquids (e.g. lactose intolerant)	○	○	○	○	○	○	○	○	○
f. Taking dietary supplements (e.g. vitamins and minerals)	○	○	○	○	○	○	○	○	○
g. Managing cravings	○	○	○	○	○	○	○	○	○
h. Managing comfort eating	○	○	○	○	○	○	○	○	○
i. Managing grazing	○	○	○	○	○	○	○	○	○
j. Managing social eating	○	○	○	○	○	○	○	○	○
k. Following exercise plan	○	○	○	○	○	○	○	○	○

21. You may have experienced one or more different changes in diet and eating behaviour post surgery not mentioned above. If so, please specify below and state whether you received information about it prior to surgery. If you received information, please rate the extent to which it was useful to you.

	Please type any other changes in diet and eating behaviour you experienced post surgery	Prior to surgery, did you receive information on it?		If you received information, how useful was it?				
		No	Yes	Not at all useful	Not very useful	A little useful	Very useful	Extremely useful
a. Other 1		○	○	○	○	○	○	○
b. Other 2		○	○	○	○	○	○	○
c. Other 3		○	○	○	○	○	○	○

CHANGES IN RELATIONSHIPS AND EMOTIONAL CHANGES POST SURGERY

22. Prior to surgery, did you receive information on the following *changes in relationships and emotional changes* which may occur post surgery? If you received information, please rate the extent to which it was useful to you. Also, specify whether you personally experienced the following changes.

More Info

	Prior to surgery, did you receive information on the following?		If you received information, how useful was it?					Did you personally experience the following changes?	
	No	Yes	Not at all useful	Not very useful	A little useful	Very useful	Extremely useful	No	Yes
a. Friendships (e.g. friendships becoming stronger or weaker post surgery, making new friends)	○	○	○	○	○	○	○	○	○
b. Marriage and romantic relationships	○	○	○	○	○	○	○	○	○
c. Sex life (e.g. more or less interest in sex)	○	○	○	○	○	○	○	○	○
d. Relationship with family members	○	○	○	○	○	○	○	○	○
e. Social life (e.g. going out more or less)	○	○	○	○	○	○	○	○	○
f. Work life (e.g. more opportunities at work post surgery, being treated differently by colleagues)	○	○	○	○	○	○	○	○	○
g. Managing difficult emotions (e.g. disappointment, guilt, depression, anxiety)	○	○	○	○	○	○	○	○	○
h. Managing positive emotions (e.g. pride, optimism, relief, happiness)	○	○	○	○	○	○	○	○	○
i. New identity (e.g. questioning who you are, adapting to a new sense of self)	○	○	○	○	○	○	○	○	○
j. Being prepared to seek support from others (e.g. recognise when things are difficult and feel able to ask for help)	○	○	○	○	○	○	○	○	○

23. You may have experienced one or more different changes in relationships and emotional changes post surgery not mentioned above. If so, please specify below and state whether you received information about it prior to surgery. If you received information, please rate the extent to which it was useful to you.

	Please type any other changes in relationships and emotional changes you experienced post surgery	Prior to surgery, did you receive information on it?		If you received information, how useful was it?				
		No	Yes	Not at all useful	Not very useful	A little useful	Very useful	Extremely useful
a. Other 1		○	○	○	○	○	○	○
b. Other 2		○	○	○	○	○	○	○
c. Other 3		○	○	○	○	○	○	○

After having surgery some people find that they experience things which they were *not* expecting as they had *not* been prepared for them. This final section asks you about whether there was anything missing from your preparation, what you would have liked more information on and what was the most important information you received.

YOUR REFLECTIONS ON THE PREPARATION YOU RECEIVED

24. In your view, was anything missing from the preparation you received prior to having weight loss surgery?

○ No ○ Yes

If yes, what was missing?

25. Is there anything that you would have liked more information on prior to having weight loss surgery?

○ No ○ Yes

If yes, what would you have liked to have more information on and why?

26. In your experience, what is the most important thing to be prepared for before undergoing weight loss surgery?

Final Page

Thank you for taking the time to complete this survey.

Rachael Noble
Psychologist in Clinical Training

Leeds Institute of Health Sciences
Faculty of Medicine and Health
Charles Thackrah Building
University of Leeds
101 Clarendon Road
Leeds LS2 9LJ

umrn@leeds.ac.uk

Edit this page

(Version 2 – 14-10-11)

Appendix III: Information sheet and consent form

STUDY 2 – INFORMATION SHEET AND CONSENT FORM

Information Sheet

Research Title: Exploring individual experiences of preparedness for bariatric surgery

Researcher: Rachael Noble

This is an invitation to take part in a research project exploring individual experiences of preparedness for bariatric surgery. Please read the following information to help you decide whether or not you would like to take part. If you require any further information or clarification on anything please feel free to ask.

What is the purpose of the research?
I am interested in the individual experiences of the preparation patients received prior to having bariatric surgery. This information will give us a greater insight and may help to improve services for bariatric patients in the future.

Do I have to take part?
It is up to you to decide whether to take part or not. If you decide to take part you will be given this information sheet to keep and asked to sign a consent form. *If you decide to take part you are free to withdraw at any time or choose not to answer certain questions without giving a reason*. A decision to withdraw, not to take part or not answer certain questions will not affect your health care in any way. If you are interested in taking part and would like more information or clarification, please ask me.

What will I have to do if I take part?
We would start by discussing the research project and give you the opportunity to ask further questions. We would then arrange a time and location that is convenient for you to be interviewed by me about your experience of preparedness for bariatric surgery. It is anticipated that the interview will last between 45 and 90 minutes. The interview will be audio-recorded and at a later date this will be typed up into a transcript to enable me to study it.

What are the possible disadvantages of taking part?
It is unlikely but possible that talking about your experience of bariatric surgery may be emotional and upsetting for you. If this happens you can stop the interview and withdraw from the study. You can contact your GP for additional support if required. The interview will last between 45 and 90 minutes. If the interview takes place somewhere other than your home, travel time and expenses will be incurred. Travel expenses will be reimbursed if a bus/train ticket is provided.

What are the possible benefits of taking part?
You may find it helpful to talk about your personal experience of bariatric surgery. By taking part in the research project you will help inform services and potentially influence future service developments.

What if there is a problem?
If you have a concern about any aspect of this research, you should contact me (contact details are below) and I will do my best to answer your questions and address any concerns. If you remain unhappy and wish to complain formally, the normal NHS complaints procedures are available to you.

Will the information I provide be kept confidential?
All the information you provide will be kept strictly confidential. The only occasion when confidentiality would be broken, and information passed onto a third party, would be in the event of a participant disclosing that they, or someone else had been harmed or were at risk of being harmed in some way. You would be fully informed by the researcher if there were any concerns prior to information being passed on. Audio-recordings and transcripts will be kept in secure cabinets until they are destroyed 3 years after the study has ended, in accordance with recommendations from Leeds University lawyers. You will be given a different name when the interview is typed up to help to keep you anonymous. This new name will be used in the report and any potentially identifying information will be removed or changed.

What will happen to the results of the research project?
The research will be written up into a doctoral thesis for academic purposes. Parts of the research may be published in academic journals and may be presented at conferences. The findings will be summarised and may be shared with professionals involved in service developments. Your identity will remain anonymous in any information shared about the research project. If you would like a summary of the results of the research project I will send you a copy.

For any further information please contact;

Rachael Noble
Psychologist in Clinical Training
Institute of Health Sciences
University of Leeds
Charles Thackrah Building
101 Clarendon Road
Leeds
LS2 9LJ

E-mail: umrn@leeds.ac.uk
Telephone: 07944 336867

(Version 2 – 14-10-11)

Consent Form

Research Title: Exploring individual experiences of preparedness for bariatric surgery

Researcher: Rachael Noble

	Please initial
I have read the participant information sheet	☐
I have had the opportunity to ask questions and discuss the research project	☐
I am satisfied with the answers provided	☐
I have received enough information about the research project	☐
I understand that taking part in the research project is voluntary and I am free to withdraw at any stage without giving a reason	☐
Do you understand that you may choose not to answer certain questions without giving a reason	☐
I understand that taking part in this research project will not affect the healthcare I receive	☐
I consent to the researcher contacting my GP if necessary	☐
I agree to be interviewed for this research project	☐
I agree for the interview to be audio-recorded	☐
I give permission for anonymous extracts from the interview to be used in the research reports	☐
I would like a summary of the research findings	☐

Signed: _____

Name (in block capitals): _____

Contact details (telephone number or e-mail address): _____

Date: _____

Researcher: _____

(Version 2 – 14-10-11)

Appendix IV: Additional BOS results table (thematic analysis)

Table 12: Themes and quotes to illustrate

Main theme	Sub-theme	Description of sub-theme	Illustrative quotation
Preparing for the 'rollercoaster ride'	Risks and side effects	Refers to the risks, complications and side effects associated with weight loss surgery.	"How to manage the lack of energy post-op. The amount of excess wind post-op. I suffered really badly to the point I thought there was something seriously wrong." "…Complication were glossed over again would not have put me off but I would have been better prepared for what was to come." "What to expect pain wise and how to manage this." "Hair loss, vomiting and bowel habits post-op, trapped wind." "More info on the changing body and what can and will happen as you lose weight, ie the aches and pains of muscles as the body adjusts to a new stance etc." "That some of the supplements might not agree with you, then I wouldn't have spent 12 weeks vomiting and wondering what I was doing wrong." "…why after weight loss surgery a high percentage of people really suffer with feeling cold a lot of the time." "That there is a possibility of adhesions following the surgery that can cause ongoing pain. That you may experience some regain further down the line. To expect to feel bone chilling coldness for about the first year." "The possibility of dying. The possibility of never eating properly again. The possibility of permanent toilet issues." "The actual risk of going under the knife, especially as the patient is larger than average, and the complications that can happen during/after surgery and infection etc."

	Dietary and supplement information	Information on changes in diet, recipes, portion size, eating restrictions, nutrition, supplements, managing cravings and comfort eating.	"Diet sheets did not allow for intolerances that may develop, ie no alternative suggestion was offered." "How to take supplements properly. Eg don't take forcival and calcium supplements together. If taking iron supplements take with orange juice. Wait four hour gaps between taking forcival and calcium tablets. I know this has all been addressed since I had my surgery for new patients." "More ideas/suggestions of life diet plans after surgery. More info on understanding the protein we need and what best foods to get it from." "Much more dietary advice should be available. I only saw the dietitian once prior to surgery and had very little information. After surgery I was just giving conflicting advice from different dietitians at every appointment." "That some of the supplements might not agree with you, then I wouldn't have spent 12 weeks vomiting and wondering what I was doing wrong." "Do as much research as possible and be prepared for how you will be eating immediately after surgery. The first few weeks are the hardest, make sure you've got plenty of support." "You are aware that you can only eat restricted amount etc and the basic stages but not enough information is given and find that when talking to people a lot have become afraid of different foods etc and don't know the limits and boundaries!" "You must be ready to change your eating habits and give up things like treacle toffee pudding and anything high in fat and sugar."
	Emotional/ psychological preparation	Emotional preparation throughout the journey, including changes in relationships. This may include support from	"Emotional preparation and development of alternative coping strategies for when food is no longer an option." "As a private patient I did not receive any counselling or assessment of my emotional needs. It would be helpful to have been offered it as I now realise that I have and always will have an emotional attachment to food and this needs working on." "Information about the challenging psychological issues following WLS." "More preparation for the emotional changes and to the way your feelings about things in general

		professionals (assessment or therapy).	change and how to deal with this." "More psychological support in the difficult weeks pre-op and availability of psychological support throughout the process." "Psychological help CBT to help with the head issues and head hunger. To help recognise why we eat." "Psychological training and advice. The surgery only changes things physically what goes on in your head is still the same." "Some counselling on the issues not covered by the preparation - more about self-image, dressing self, feelings related to that, anxiety about buying clothes that didn't swamp me and all in black etc." "Understanding and help with the psychological changes afterwards. Plus help with the loose skin afterwards and how psychologically it damages your body-image and personal relationships when you are just "left" with it." "How to deal with the head issues you have with food, I never had any counselling before surgery, so I'm having problems with grazing and comfort eating, as I have always eaten for emotional reasons." "I would have liked to have gone through some "head" testing as I suffered from Clinical Depression before surgery and hoped I would feel better about myself after I lost the weight. I still suffer with my head and still seek food as my comfort." "More information on the mental effects of how to deal with you changing body as the operation is the easy part and its post-op you need more help!" "How you are going to feel after surgery. The eating part becomes normal practice very quickly but the changes to you emotionally take a lot longer to come to terms with." "It's just as a much a psychological battle as an operation and whilst the restrictions imposed by surgery kick start the amazing weight loss, if you don't overhaul your thinking too, its just going to go back on. Way underestimated my own psychological bad habits and how difficult some of my friends would find the changes I need to make."

			"Mental preparation. Once your head is in the right place the rest is "easy". We have counselled a number of patients through surgery and found the mental state is vital to this huge decision being successful."
	From the horse's mouth	Support from people who have had weight loss surgery. This may be in the form of support groups, social networks on the internet or literature produced by those who have experienced weight loss surgery.	"I wish they had a support group going at the time as people get a lot from us." "Opportunity to speak to people who had already had surgery." "…Support from family and BOSPA group in Taunton. BOSPA was an invaluable resource." "Support groups / contacts via internet as did not find them until well after surgery." "To speak to others that had had surgery, and hear their experiences." "I would have liked to speak to others whom had had surgery before I went in." "Mechanics of the surgery, that people realise this is an adjustment for life that is not a miracle cure and works if you work at it after the initial stage. The support group is by far the most crucial element; prior and post-surgery one has the opportunity to meet others who have gone through bariatric surgeries, and can provide specific insights to each procedure both pros and cons which helps with own decision making as well as support afterwards. I have also found WLS info website invaluable as I cannot often physically get to my support group with child care/work commitments. The websites helps keep up to date with new information, as well as support for self and to provide for others. Reading diaries and looking at photos of others achievement is often inspiring and life affirming." "Support groups and good information from dietitian and surgeon." "Making sure that a bariatric support network is in place post-op whether a support group or an on-line forum." "To make use of the support groups available, as the peer support is more regular than hospital appointments and it's also genuine experiences."
	"It is a tool and not a	Illustrates the hard work	"…realising that it is not a quick fix, but needs to be worked at really hard!"

	magic wand"	involved in the weight loss surgery journey and the complete change of lifestyle.	"Being mentally ready for the changes you need to make for life and remember the band is a tool to help you not a quick fix." "Realising that you have a tool to work with and not against it and enjoy the results." "That although the surgery provides weight loss and is a tool, you need to work on your relationship with food and make the right choices and work together with the surgery and you need to find support where you can." "That it is important to work along side your gastric bypass for the best long-term results." "That life will never be the same again because the surgery is only a tool, my weight loss was up to me. That you cannot continue the way you did, and the surgery does not automatically give you the results you want - it still has to be worked for." "That losing weight isn't a magic solution to all of the issues you have. The problems may still exist you can be thin and unhappy." "That you know that this is for life and not a quick fix and eat healthy and not eat what you would have ate in your past life, because this is your new life." "This is not a cure, it's a tool to work with. It won't be easy." "…That it is not the easy way out and it still takes a massive effort and be prepared to think and feel completely differently about food." "To understand that it is not a quick or easy fix to a weight problem. It requires a lot of hard work and sacrifice and at times pain and discomfort."

Appendix V: Ethical approval letter

National Research Ethics Service
NRES Committee Yorkshire & The Humber - Leeds East
Yorkshire and Humber REC Office
First Floor, Millside
Mill Pond Lane
Meanwood
Leeds
LS6 4RA

Telephone: 0113 3050108
Facsimile:

20 October 2011

Miss Rachael Noble
Psychologist in Clinical Training
The Leeds Teaching Hospitals NHS Trust
Leeds Institute of Health Sciences
Charles Thackeray Building
101 Clarendon Road
LS2 9LJ

Dear Miss Noble

Study title:	**Exploring individuals' experiences of preparedness for bariatric surgery**
REC reference:	**11/YH/0374**

Thank you for your letter of 17th October 2011, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Non-NHS sites

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
Advertisement	1	20 August 2011
Advertisement	2	14 October 2011
Evidence of insurance or indemnity		
GP/Consultant Information Sheets		
Interview Schedules/Topic Guides	1	20 August 2011
Interview Schedules/Topic Guides	2	14 October 2011
Investigator CV		
Other: CV - Sylvie Collins		
Other: CV - Prof Andrew Hill		
Participant Consent Form	1	20 August 2011
Participant Consent Form	2	14 October 2011
Participant Information Sheet	1	20 August 2011
Participant Information Sheet	2	14 October 2011
Protocol	1	20 August 2011
Questionnaire	1	09 September 2011
Questionnaire	2	14 October 2011
REC application		12 September 2011
Response to Request for Further Information		

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document *"After ethical review – guidance for researchers"* gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

Further information is available at National Research Ethics Service website > After Review

11/YH/0374	**Please quote this number on all correspondence**

With the Committee's best wishes for the success of this project

Yours sincerely

Dr Carol Chu
Chair

Email: jade.thorpe@nhs.net

Copy to: *Mrs Rachel De Souza*
Ms Jane Dennison, Bradford Teaching Hospitals NHS Foundation Trust

Appendix VI: Questionnaire preparation data

Table 13: Preparation received, usefulness rating and personal experience for the whole sample

Different parts of WLS process	Did you receive information?		How useful was it?					Did you personally experience the following different parts?	
	No	Yes	Not at all	Not very	A little	Very	Extremely	No	Yes
a) Admission procedures (%)	16 (10.8)	132 (89.2)	2 (1.5)	0	22 (16.8)	60 (45.8)	47 (35.9)	29 (19.6)	119 (80.4)
b) Anaesthesia & risks (%)	12 (8.1)	136 (91.9)	0	4 (2.9)	19 (14.0)	58 (42.6)	55 (40.4)	37 (25.0)	111 (75.0)
c) Surgery itself & risks (%)	0	148 (100.0)	1 (0.7)	4 (2.8)	15 (10.3)	47 (32.4)	78 (53.8)	28 (18.9)	120 (81.1)
d) Discharge from hospital (%)	37 (25.0)	111 (75.0)	1 (0.9)	3 (2.7)	21 (19.1)	40 (36.4)	45 (40.9)	36 (24.3)	112 (75.7)
e) Recovery process (%)	23 (15.5)	125 (84.5)	0	6 (4.9)	19 (15.4)	48 (39.0)	50 (40.7)	33 (22.3)	115 (77.7)
f) Pain management techniques (%)	59 (39.9)	89 (60.1)	0	4 (4.6)	18 (20.7)	32 (36.8)	33 (37.9)	55 (37.2)	93 (62.8)
Mean average	***24.5 (16.6)***	***123.5 (83.4)***	***0.7 (0.5)***	***3.5 (3.0)***	***19 (16.0)***	***47.5 (38.8)***	***51.3 (41.6)***	***37.0 (24.6)***	***111 (75.5)***

Physical changes post-surgery	Did you receive information?		How useful was it?					Did you personally experience the following changes?	
	No	**Yes**	**Not at all**	**Not very**	**A little**	**Very**	**Extremely**	**No**	**Yes**
a) Loose or sagging skin (%)	48 (32.4)	100 (67.6)	5 (5.1)	10 (10.1)	33 (33.3)	29 (29.3)	22 (22.2)	32 (21.6)	116 (78.4)
b) Body shape (%)	81 (54.7)	67 (45.3)	0 (0)	6 (9.1)	16 (24.2)	29 (43.9)	15 (22.7)	22 (14.9)	126 (85.1)
c) Hair loss (%)	63 (42.6)	85 (57.4)	1 (1.2)	9 (11.0)	25 (30.5)	25 (30.5)	22 (26.8)	72 (48.6)	76 (51.4)
d) Dry skin (%)	103 (69.6)	45 (30.4)	0 (0)	5 (12.2)	13 (31.7)	15 (36.6)	8 (19.5)	79 (53.4)	69 (46.6)
e) Swollen ankles (%)	107 (72.3)	41 (27.7)	0 (0)	5 (13.5)	13 (35.1)	12 (32.4)	7 (18.9)	125 (84.5)	23 (15.5)
f) Wound infections (%)	40 (27.0)	108 (73.0)	1 (1.1)	3 (3.2)	22 (23.2)	39 (41.1)	30 (31.6)	111 (75.0)	37 (25.0)
g) Dumping syndrome (%)	30 (20.3)	118 (79.7)	1 (0.9)	3 (2.8)	21 (19.4)	44 (40.7)	39 (36.1)	62 (41.9)	86 (58.1)
h) Health improvements (%)	21 (14.2)	127 (85.8)	3 (2.7)	2 (1.8)	15 (13.3)	50 (44.2)	43 (38.1)	32 (21.6)	116 (78.4)
i) Vomiting (%)	41 (27.7)	107 (72.3)	1 (1.0)	5 (5.1)	23 (23.5)	41 (41.8)	28 (28.6)	49 (33.1)	99 (66.9)
j) Feeling nauseous (%)	55 (37.2)	93 (62.8)	0 (0)	4 (4.7)	19 (22.1)	37 (43.0)	26 (30.2)	41 (27.7)	107 (72.3)
k) Bringing up mucus (%)	95 (64.2)	53 (35.8)	1 (2.0)	2 (4.0)	15 (30.0)	16 (32.0)	16 (32.0)	78 (52.7)	70 (47.3)
l) Excessive wind/flatulence (%)	69 (46.6)	79 (53.4)	0 (0)	0 (0)	22 (30.6)	29 (40.3)	21 (29.2)	48 (32.4)	100 (67.6)
m) Diarrhoea (%)	60 (40.5)	88 (59.5)	3 (3.6)	2 (2.4)	26 (31.3)	31 (37.3)	21 (25.3)	59 (39.9)	89 (60.1)
n) Constipation (%)	60 (40.5)	88 (59.5)	3 (3.8)	6 (7.6)	23 (29.1)	27 (34.2)	20 (25.3)	51 (34.5)	97 (65.5)
Mean average	***62.4 (42.1)***	***85.6 (57.9)***	***1.4 (1.5)***	***4.4 (6.3)***	***20.4 (27.0)***	***30.3 (37.7)***	***22.7 (27.6)***	***61.5 (41.6)***	***86.5 (58.4)***

Changes in diet and eating behaviour post-surgery	Did you receive information?		How useful was it?					Did you personally experience the following changes?	
	No	**Yes**	**Not at all**	**Not very**	**A little**	**Very**	**Extremely**	**No**	**Yes**
a) Pre-surgery diet (%)	12 (8.1)	136 (91.9)	0 (0)	7 (5.4)	11 (8.5)	43 (33.1)	69 (53.1)	13 (8.8)	135 (91.2)
b) Post-surgery diet (%)	8 (5.4)	140 (94.6)	2 (1.5)	11 (8.3)	11 (8.3)	48 (36.1)	61 (45.9)	6 (4.1)	142 (95.9)
c) Restricting food intake (%)	11 (7.4)	137 (92.6)	3 (2.3)	9 (6.9)	24 (18.5)	46 (35.4)	48 (36.9)	10 (6.8)	138 (93.2)
d) Poor tolerance to certain foods and liquids (%)	23 (15.5)	125 (84.5)	2 (1.7)	7 (5.9)	23 (19.3)	42 (35.3)	45 (37.8)	22 (14.9)	126 (85.1)
e) Intolerance to certain foods and liquids (%)	67 (45.3)	81 (54.7)	2 (2.7)	5 (6.7)	12 (16.0)	25 (33.3)	31 (41.3)	76 (51.4)	72 (48.6)
f) Taking dietary supplements (%)	16 (10.8)	132 (89.2)	2 (1.6)	5 (4.1)	14 (11.4)	39 (31.7)	63 (51.2)	13 (8.8)	135 (91.2)
g) Managing cravings (%)	98 (66.2)	50 (33.8)	0 (0)	8 (17.4)	5 (10.9)	14 (30.4)	19 (41.3)	52 (35.1)	96 (64.9)
h) Managing comfort eating (%)	96 (64.9)	52 (35.1)	0 (0)	8 (16.3)	6 (12.2)	17 (34.7)	18 (36.7)	52 (35.1)	96 (64.9)
i) Managing grazing (%)	89 (60.1)	59 (39.9)	1 (1.9)	7 (13.0)	7 (13.0)	19 (35.2)	20 (37.0)	52 (35.1)	96 (64.9)
j) Managing social eating (%)	87 (58.8)	61 (41.2)	0 (0)	7 (12.1)	8 (13.8)	19 (32.8)	24 (41.4)	38 (25.7)	110 (74.3)
k) Following exercise plan (%)	62 (41.9)	86 (58.1)	0 (0)	7 (8.8)	19 (23.8)	26 (32.5)	28 (35.0)	39 (26.4)	109 (73.6)
Mean average	***51.7 (34.9)***	***96.3 (65.1)***	***1.1 (1.0)***	***7.4 (9.5)***	***12.7 (14.2)***	***30.7 (33.7)***	***38.7 (41.6)***	***33.9 (22.9)***	***114.1 (77.1)***

Changes in relationships and emotional changes post-surgery	Did you receive information?		How useful was it?					Did you personally experience the following changes?	
	No	Yes	Not at all	Not very	A little	Very	Extremely	No	Yes
a) Friendships (%)	111 (75.0)	37 (25.0)	0 (0)	4 (11.4)	10 (28.6)	14 (40.0)	7 (20.0)	63 (42.6)	85 (57.4)
b) Marriage and romantic relationships (%)	113 (76.4)	35 (23.6)	2 (6.0)	6 (18.2)	8 (24.2)	10 (30.3)	7 (21.2)	84 (56.8)	64 (43.2)
c) Sex life (%)	120 (81.1)	28 (18.9)	2 (7.1)	5 (17.9)	6 (21.4)	8 (28.6)	7 (25.0)	63 (42.6)	85 (57.4)
d) Relationship with family members (%)	116 (78.4)	32 (21.6)	0 (0)	7 (24.1)	5 (17.2)	10 (34.5)	7 (24.1)	85 (57.4)	63 (42.6)
e) Social life (%)	110 (74.3)	38 (25.7)	0 (0)	8 (22.2)	8 (22.2)	12 (33.3)	8 (22.2)	59 (39.9)	89 (60.1)
f) Work life (%)	118 (79.7)	30 (20.3)	0 (0)	6 (20.0)	10 (33.3)	7 (23.3)	7 (23.3)	86 (58.1)	62 (41.9)
g) Managing difficult emotions (%)	113 (76.4)	35 (23.6)	1 (2.9)	7 (20.6)	6 (17.6)	11 (32.4)	9 (26.5)	66 (44.6)	82 (55.4)
h) Managing positive emotions (%)	120 (81.1)	28 (18.9)	1 (3.6)	3 (10.7)	6 (21.4)	10 (35.7)	8 (28.6)	53 (35.8)	95 (64.2)
i) New identity (%)	119 (80.4)	29 (19.6)	0 (0)	4 (14.3)	5 (17.9)	9 (32.1)	10 (35.7)	56 (37.8)	92 (62.2)
j) Being prepared to seek support from others (%)	99 (66.9)	49 (33.1)	3 (6.8)	2 (4.5)	5 (11.4)	19 (43.2)	15 (34.1)	62 (41.9)	86 (58.1)
Mean average	***114 (77.0)***	***34 (23.0)***	***0.9 (2.6)***	***5.2 (16.4)***	***6.9 (21.5)***	***11 (33.3)***	***8.5 (26.0)***	***67.7 (45.8)***	***80.3 (54.3)***

Appendix VII: Interview schedule

STUDY 2 - INTERVIEW SCHEDULE

Introductions
Explain research
- Go through information sheet – highlight that participants can move past a question if they do not wish to answer it
- Give opportunity to ask questions
- Explain audio recording
- Risk warning – e.g. some areas might be sensitive

Obtain informed consent
Remind participants that the interview is only about weight loss surgery and not any other surgery which may have been undertaken.
Explain structure of interview, including timings
- e.g. Interested in your experiences, no right or wrong answers. Interview is a bit like a one sided conversation. I will say very little and some questions may seem self-evident, but the reason for this is because I'm trying to understand your experience of things.

Possible interview schedule

Beginning
Type of surgery
Length of time since surgery
Have you had surgery more than once?
If so, how many times? What surgery?
Where did you have surgery?
What was the length of time between referral and surgery?

Main body
Can you describe your journey from being referred for surgery to the point at which you actually received bariatric surgery?
Possible prompts: What happened? How did you feel? Have you experienced other…?

How prepared did you feel for surgery?
Possible prompts: What helped you feel prepared? What could have helped you to feel prepared? What did you receive in terms of preparation?

So it's been [however many] months/years since undergoing surgery, how have things changed for you since surgery?
Possible prompts: Can you describe what impact surgery has had on your relationships with others/eating/emotional wellbeing/work life/appearance?

How have you adjusted to those changes?
Possible prompts: In what way?

How prepared did you feel for the changes *after* surgery?
Possible prompts: What helped you feel prepared? What could have helped you to feel prepared? What did you receive in terms of preparation?

What were your expectations prior to surgery (with regard to recovery?)
Possible prompts: What did you expect to happen? What things did you expect to change? How did you expect to feel? How did you expect others to react?

How has your experience matched with your expectations?
Possible prompts: Did it meet your expectations? In what way?

Ending
Is there anything more about your experience of preparation for bariatric surgery that you want to add?

Possible probes:
That's interesting, go on
Could you tell me more
Non-verbal e.g. waiting, facial expression, leaning forward

(Version 2 – 14-10-11)

Appendix VIII: IPA protocol

IPA protocol used

I used the detailed description of the conventional process of IPA provided by Smith, Flowers and Larkin (2009) to draw up this protocol for analysing the data.

- Read through transcript whilst listening to the audio-recording. Hearing the voice of the participant assists with a more complete analysis (Smith, flowers and Larkin, 2009). Check accuracy of transcript. Note any changes in tone, speed of voice, pauses.
- Read through a second time to allow a model of the overall interview to develop, and allows the researcher to understand how stories can bind certain sections of the interview together. Underline words and sections containing language and content that appear meaningful and/or important.
- Read through a third time, making initial notes, summaries and comments (descriptive, linguistic, conceptual) on the data in the right hand margin.
- Read through a fourth time, adding to the notes in the right hand margin and checking that the notes are grounded in the participant's account.
- Read through a fifth time, making notes in the left hand margin of possible developing emergent themes, labels, any inconsistencies, possible links to theory and questions.
- Search for connections across emergent themes by typing all the themes in chronological order and moving the themes around to form clusters of related themes.
- Read through transcript a sixth time to ensure all the notes in the margins have been accounted for in the collation.
- Annotate each possible theme with a line number to illustrate it with a few key words from the participant.
- Review the collation of possible themes and identify some master and super-ordinate themes.
- Annotate each with line numbers to illustrate the theme with a few key words from the participant.
- Follow the same procedure for all seven interview transcripts.
- Search for patterns across cases by placing all possible themes for all cases on a large surface to look for connections across cases.
- Display list of master and super-ordinate themes in a tabular form.
- Add quotations from different cases to illustrate each theme.

Appendix IX: Individual participant analysis

Claire's experience of weight loss surgery

Master theme	**Super-ordinate theme**
Deciding to have surgery	Turning point
	Desperation
	Understanding why
	Anxieties
Expectations	Life goes on
	Head still catching up
	Lack of preparation
	Changing social life
Adapting to changes and losses	Changes in relationships
	Loss of identity
	Who am I?
	Physical changes

Ann's experience of weight loss surgery

Master theme	**Super-ordinate theme**
Deciding to have surgery	New beginning
	Desire to 'be happy'
	Determination
	Searching for explanation
To be or not to be well informed	Avoiding research
	I should have been told
Relationship with food	Coping strategy
	Playing the food game
	The last supper
	Fear of weight regain
Comparing pre-op and post-op self	Repulsed by former self
	Relationship changes
	The new me
	Confidence
	Opportunities

Josie's experience of weight loss surgery

Master theme	Super-ordinate theme
Decision making process	History of weight problems
	Questioning decision
	What have I done?
I do and I don't want to be well informed	Risks
	If only I'd known
	When things go wrong
	From the horses mouth
Changing relationship with food	Relearning about diet
	Loss of appetite
	Sick role
	Fear of weight regain
The old and new me	Physical changes
	Self acceptance
	Changing relationships
	Life goes on

Brian's experience of weight loss surgery

Master theme	Super-ordinate theme
Decision making process	Turning point
	Last resort
Preparation	From the horse's mouth
	Modelling
	Family support
	Expectations
Changing relationship with food	Food rules
	Loss
	Family relationship with food
	Side effects (vomiting)
The old and new me	Changing body shape
	Relationship with family
	No more couch potato
	Head still catching up
	Reactions from others
	No regrets

Lucy's experience of weight loss surgery

Master theme	Super-ordinate theme
Deciding to have surgery	History of dieting
	Fears
	Preparing for death
	New beginning
Preparation	From the horse's mouth
	Social networks
	Professional support
Relationship with food	Following food rules
	Fear of food
	Weight monitoring
	Managing stress
Pre-op and post-op self	Adjusting to the new me
	Changes in relationships
	Changes at work
	Physical changes

Floyd's experience of weight loss surgery

Master theme	Super-ordinate theme
Deciding to have surgery	Understanding why
	History of dieting
	Fear of death
Experience of support	Changing relationships
	Peer support
	Role of professionals
Preparation that works for me	What has happened to others?
	What will happen to me?
Relationship with food	Food as coping strategy
	Food rules
	Listening to new body
Comparing pre and post-surgery self	Mourning the old me
	Adjusting to the new me

Isabeau's experience of weight loss surgery

Master theme	**Super-ordinate theme**
Preparing for surgery	Social support
	Coping strategies
	Procedural information
	Therapy
Relationship with food	Food as an addiction
	Managing temptation
	Following food rules
	Food as friend and foe
	Fear of weight regain
Discovering new identity	Gender identity
	Feeling liberated
	Feeling vulnerable
	Adjusting to physical changes
Future outlook	New opportunities
	Fear of the unknown
	From 'existence' to 'living life'

Appendix X: Additional IPA results table

Table 14: Group analysis additional quotations

Master theme	Super-ordinate theme	Illustrative quotation	Participant
Lead up to surgery	Making sense of becoming overweight	"I am someone who throughout my life I have always been overweight…I have never known any different…We don't know whether I was eating too little at the time or just doing it really badly, so I don't know."	Ann
		"From being sort of 10 I just ballooned. I come from a family of three and I was the skinniest one out of them… And then from 10 it was just like when I was 11 I was 11 stone and when I was 12 I was 12 stone and it just progressed."	Brian
		"I wasn't a binge eater, I wasn't someone who made myself sick or anything like that, I just ate too much food and probably the wrong food, simple as."	Lucy
		"The way that I would use to keep men away was to make myself unattractive to the point of being morbidly obese. It is not the ideal body type for most people. So that was my way of keeping people away from me in a romantic fashion."	Isabeau
	Deciding to have surgery	"I was diagnosed with having an early menopause and was told I must lose weight really because of my bones and things."	Lucy
		"It is a lifeline and you are going to take this lifeline no matter what and if I did drop dead through this operation you would still take that risk yourself because it is your last chance."	Claire
		"I was so desperate I said yes whatever it takes I will do it."	Ann
		"Having those genetics in my family, there is a pretty strong chance that I would be going down that route and there were signs to show that I was going down that route so, for me, it was a very essential thing to do."	Isabeau
		"Four girls in a silver Fiesta slowed down next to me and started yelling abuse out of the car."	Ann

	Fear	"I just thought, what if I die? What if I die under anaesthetic, what if I have a heart attack, what if this, what if that."	Josie
		"I was, it was awful because I was really frightened but I figured if I didn't come round I wouldn't know about it…. I just lay on the bed as they were putting me to sleep and started to cry and I just said don't let me die."	Claire
		"I think by Friday night I had done all the panicking. I think I knew I had said all I had to say."	Floyd
Preparing for surgery	From the horse's mouth	"It was all through the support group meeting speaking to people who had had surgery and how they came out of it and I thought well, I have to expect as much as they have got out of it."	Brian
		"It is a group that is based on openness and honesty so you know they tell you all about the surgery, and everything it involves, warts and all, and that is what you need. You don't want a sugar coated pill."	Isabeau
		"To be honest I think anyone who wants the surgery and has it done and doesn't go to the group is a fool. That is where all the information comes from. For everything."	Brian
	I want to know everything… or do I?	"I wanted to see it on telly, I wanted to watch and I was doing all right until I watched the operation and even to this day when they play it at group and stuff like that, it makes me feel really queasy and I am not normally like that."	Floyd
		"Seeing the surgeon and surgery and seeing what he did didn't make me feel uncomfortable or I didn't think I don't want it done. I wasn't bothered what he was going to do when he opened me up or how he was going to do it and I could sit there and watch it and think, well if that is what he is going to do, I am going to be asleep."	Brian
	But no-one told me	"I knew what to expect, or thought I knew what to expect and they give you Warfarin which they inject into your belly but no one told me about this Warfarin and considering I was going to have holes and pliers and pipes shoved inside me, I knew that, but they said we have to give you this so I said oh I haven't heard anything about this. Do I need it? Is it a life and death? Well it is a little prick in your belly. Well me and injections don't mix I am petrified."	Floyd
		"I don't think I was very prepared for it. Certainly on like the eating side of things….Yes, it was very like being on your period permanently. It was very emotional, just for no reason at all. I would say after the surgery that I wasn't prepared at all. But I think I learnt a hell of a lot from it."	Josie
Relationship with food	Food as a coping	"I am more of a regular drinker now and they said, it is an addiction, they told me this at the group, it is more of an addiction, you are more susceptible to becoming an alcoholic or a drug abuser because you need to fill	Floyd

	strategy	that void. I won't touch drugs but I do like a drink. I wont say I go out and get absolutely plastered but I am drinking more regularly. I will hold my hand up to that and if that is my biggest sin, well that is my biggest sin."	
		"I consider myself to be a compulsive eater and I go to counselling because whenever things are out of control in my life or I feel I am losing control that is what I go to is food and overeating."	Isabeau
		"I always wished I could just not eat. You know it is like any other addiction because that is how I see it. I wished I could just stop and not have to look at it again because that would be easier in some respects. You are still having to go to a supermarket and buy food."	Isabeau
	The last supper	"I was making this sandwich you know you just have a final hurrah before you go on the liver diet and anyone who says they don't is lying. You have an Indian, you have a Chinese, you have a pizza because you think, I am never going to do this again so I am going to do it. It is only normal and all the while you are eating you are thinking I feel so guilty doing this because it is in your brain that you shouldn't be eating these foods because you have been on a diet all your life."	Ann
		"We went out for fish and chips the night before the diet started, this is my last fish and chips bum bum bum. And that was it, I got my head stuck into it."	Floyd
	Food rules	"I got the information pack with exactly what was going to happen and the various different foods that I could eat and the 6 months stage which is the pureed stage and then the soft and crispy and then the three meals a day. And then I got my date and did my diet and then it was in."	Brian
		"After 24 hours I could have sort of free fluids like coffee and things like that, I was fine with and then the next day they introduced some food which was supposed to be really sloppy and for my first day they brought me two big weetabix."	Lucy
		"I mean, I am experimenting a bit now. I have had tiny slithers of desert and things like that to see what I can get away with because they have this dumping syndrome. I have had that a few times but that has been mainly caused by having too much milk on my cereals for instance."	Isabeau
Changing relationships	Romantic relationships	"Your relationship does change because you are not the person who then met. Well I wasn't anyway... I have changed physically so much that it must have affected him but he won't say how it has affected him."	Claire
		"I think it was because our relationship was changing. He couldn't even acknowledge that I was losing the weight and that I looked OK for losing that weight."	Josie

		"My wife was with me 110% of the way. I wouldn't have had it any other way because there is always that chance of missing a bit of information and four ears are better than two."	Floyd
	Family dynamics	"My children, it affected them in the sense that even they were cautious of what I ate and my stomach rumbles because I did say to the surgeon, 'how long will my stomach gurgle for?' and he said, 'It could be like that for the rest of your life' and it does, it just gurgles and my children were concerned because they thought I was hungry all the time and I wasn't but then it affects them in a different sense that. Now I will walk for miles, although my legs are getting a bit old and weary now just for being old age. But you do things different with your kids because you can do things now all of a sudden."	Claire
		"There is one major thing that it is either going to cause me and my mum to fall out big style, or, I am going to succeed in doing what I want to do. I want her to lose weight… she struggles with her movement now and mobility and I keep getting at her and she gets frustrated and she gets upset with it… you are perfectly healthy now but that is not going to last if you carry on the way you are."	Ann
		"Me and my family are safe because I am the size I am and no one is going to upset that. Not only am I getting older but I don't have that weight any more. And as much as I still would defend to the death I am thinking well if this kicks off I am not as big as I used to be. I run faster I suppose."	Floyd
Identity	Experiencing loss	"When I was big I would go out and people would chat me up, because I flirt…I went on my sister-in-law to be's hen night and I didn't get chatted up and it right upset me."	Claire
		"My concern regarding work, I knew, naturally losing weight I would be losing my strength."	Floyd
		"I was running between traffic, my own fault, and this car hit me clean on and I went straight over the roof…I was taken to hospital…I was bruised, no broken bones, my pride was hurt more than anything else…if I got hit now at a normal weight there is no way on God's earth I would have got away without a broken bone."	Floyd
	Feeling disappointed	"I did think everything would be better in my life but it isn't. It is just like you have the same old shit you are just thinner to cope with it. You still have to go to work every day. You still have to sit with your husband every day, you still have to be with your kids every day, you still have to shop, clean, cook, wash, every day."	Claire
		"You think it is going to make everything fine and you know you are not going to look like a super model but part of your brain is saying, you will, you will look fantastic, you will look absolutely amazing and I don't think until I have had plastic surgery I still don't think I will feel any better about myself than I do now."	Ann

		"I didn't realise what the psychological impact of having the extra skin would have and how, not dissatisfied with the operation and how I am now, but how dissatisfied I am still with my body-image. So even though I have lost a lot of weight I am still dissatisfied with my body."	Isabeau
	Fear of weight regain	"I had certainly lose nearly 10 stone but my BMI was still over 30…To me it is a bit of a grey area when they say you will plateau out and stop when you get to your level. So, what's your level? Your level might be 6 stone am I just going to dwindle down until I am 6 stone then."	Brian
		"I am sure we all end up putting on a little bit of weight back on which is what they tell you to expect. You know, this is the easy bit. The hard bit comes maintaining it and all the rest of it."	Lucy
	Head still catching up	"It is like you do walk past a mirror and you think shit who was that because you are so used to seeing this big person so it is a whole new thing to start worrying about."	Claire
		"That can't keep up. Your head can't keep up. I mean you are buying a pair of jeans on a Monday and you are throwing them away by the Friday. That is how rapid it was coming off me as an individual. All the control has been taken away."	Floyd
		"I still want to eat big portions in my head I look forward to a big bowl of pasta or something like that."	Isabeau
	Discovering the new me	"I carry pictures around, I still do, I carry pictures around of what I looked like and I will go into Dorothy Perkins now and they know it is me and I go well I had an operation and they say oh I remember you saying."	Claire
		"I accept it is going to be dramatic, but if it is going to be as dramatic as them ones and I shut off and I lose me and if I lose somewhere down the line me, then I am going to stick my head in a gas oven."	Floyd
		"Discovering what their style is and stuff like that. It is quite exciting actually. And I buy things for myself. I used to feel really guilty about buying clothes, now I just don't care. If I want it I will have it you know sort of thing. So I do buy myself things and I quite relish going around and looking for girly things."	Isabeau
		"We had a day where my wardrobe was full and she said we need to sort your wardrobe out. It was trying everything on, bin, I thought I like that, bin, your shoulders are down here. Bin! There was nothing in my wardrobe."	Brian