Decision making in patients choosing to undergo bariatric surgery

by

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DECLARATION

I declare that this thesis is my own account of my research and contains as its main content work that has not been submitted for a degree at any tertiary education institution.

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ABSTRACT

Background

Worldwide increases in obesity present significant health and socio-economic challenges with weight loss strategies of dieting and exercise appearing to have minimal impact. Concomitantly, the choice to have bariatric surgery is becoming more prevalent, although little is known about how and why people choose this option to address their obesity issues.

Aim

To explore and understand the experiences involved in the decision making of the obese person choosing to have bariatric surgery so as to better inform the support required for those seeking a surgical option.

Method

The study design used an interpretive methodology within the qualitative paradigm to investigate the obese person’s values, attitudes and beliefs in shaping their decision to have bariatric surgery. Eight English speaking participants, having had either laparoscopic gastric band, laparoscopic sleeve gastrectomy or roux-en Y surgery, were recruited via an Australian facebook site to participate in a phone interview and provide online demographic and genogram data. Data was analysed using thematic analysis. The Health Belief Model (HBM) provided a lens through which data was collected and analysed with the supposition that individuals are understood as being able to process information, and with this cognitive understanding then decide what behaviours they wish to undertake to effect change.
Findings

The participants, aged between 28 and 58 years, reported struggling with their weight either since adolescence (n=5) or following childbirth (n=3). Most (n=7) had identified the internet, inclusive of social forums, as their primary information source when deciding to have surgery. Most participants (n=7) within this study autonomously decided to opt for bariatric surgery prior to consultation with a health professional, the majority of participants (n=7) also having already decided the actual bariatric procedure prior their surgical consult. Five themes were identified from the analysis of the qualitative data, ‘standing outside the circle’, ‘finding obesity all-consuming’, ‘struggling to live life’, ‘travelling the road to surgery’ and lastly ‘the good, the bad and the unsightly’. These themes identify the emotional and health roller coaster that the obese individual experienced in trying to achieve weight loss and the factors that lead to the decision to opt for a surgical procedure to ensure that their weight loss would be sustained.

Conclusion

Areas identified as needing further attention include: (i) the provision of information sources and patient supports that are altruistic, valid and reliable, inclusive of current data regarding bariatric surgery and efficacy (ii) design of public health promotions and support that target prevention and early treatment of obesity in high risk groups, and (iii) a comprehensive investigation into the economic costs and funding arrangements for bariatric surgery and follow up care, addressing the disparity of individuals who are uninsured.
# TABLE OF CONTENTS

DECLARATION...........................................................................................................................i
ABSTRACT ..................................................................................................................................ii
ACKNOWLEDGEMENTS..........................................................................................................vii

## CHAPTER ONE - INTRODUCTION .................................................................................1
  Background to the study ........................................................................................................1
  Significance and aims.........................................................................................................7
  Research questions .........................................................................................................7
  Glossary of terms ...........................................................................................................7
  Structure of the thesis .................................................................................................10

## CHAPTER TWO – LITERATURE REVIEW ......................................................................12
  Introduction.......................................................................................................................12
  Literature search questions ..........................................................................................12
  Search strategy .............................................................................................................12
  Global trends in obesity ..............................................................................................14
  Obesity defined and classified ....................................................................................15
  Comorbidities associated with obesity .........................................................................17
  Interventions: Lifestyle, medication, and exercise .........................................................18
  Causes of obesity ........................................................................................................19
  Surgical intervention ....................................................................................................20
  The emergence of bariatric surgery as a treatment for weight loss and obesity ..........22
  Outcomes of bariatric surgery: Weight loss and remission of co-morbidities ...............23
  Patient satisfaction .......................................................................................................26
  Decision making for bariatric surgery .........................................................................29
  Conclusion ....................................................................................................................31

## CHAPTER THREE - METHODOLOGY .........................................................................33
  Introduction.......................................................................................................................33
  Research design ............................................................................................................33
  Health Belief Model; a guiding theoretical framework ..................................................34
  Application of the Health Belief Model ........................................................................37
  Sample and setting .......................................................................................................38
  Data collection .............................................................................................................40
  Data analysis ...............................................................................................................41
  Reflection on personal assumptions ...........................................................................43
  Trustworthiness ...........................................................................................................47
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My grateful thanks to my family. To my husband Paul, and my daughter Karlie, thank you for your patience, love and support whilst I completed this research thesis. I know I have been boring at times, seemingly always on my computer, but I finished my Thesis!
CHAPTER ONE

INTRODUCTION

Worldwide increases in obesity amongst all age groupings have increased and now present a significant challenge to public health (Arterburn & Courcoulas, 2014; Brennan et al., 2016; Finucane et al., 2011; E. Natvik, Gjengedal, Moltu, & Raheim, 2014). Obesity has the highest prevalence in the developed countries, however this trend is changing dramatically with increases now being observed in the middle to low-income countries, as urbanisation, income and the availability of energy-dense food increases worldwide (Brennan et al., 2016; Colagiuri et al., 2010; Healey, 2015; Organization, 2013).

In Australia, the proportion of the overweight and obese adult population in 2007-2008 was 39.1% and 26.9% respectively. The associated costs of government health funding were $31.2 billion and $28.5 billion per year (Colagiuri et al., 2010). If current trends continue, it is predicted that Australia’s obesity rate will escalate further with numbers amounting to the very concerning figure of 83% of males and 75% of females being either overweight or obese by the year 2025 (Healey, 2015). Obesity leads to morbidity and premature mortality, with associated health conditions such as type 2 diabetes (28 %), coronary heart disease (14-19%), osteoarthritis (10-17%), and major depression (7%) (Arterburn & Courcoulas, 2014). These diseases all contribute to a shorter lifespan and increasing public healthcare costs (Arterburn & Courcoulas, 2014).

Bariatric surgery and the demand for this procedure have exponentially increased with improved surgical techniques. With the minimization of complications, the procedure is now considered a safe and effective means of weight loss (Alvarenga, Lo Menzo, Szomstein, & Rosenthal, 2016; Angrisani et al., 2015a; Arterburn & Courcoulas, 2014; Falk et al., 2016; Sarela, 2014; Weinstein et al., 2014). This
following literature review aims to explore the influencing factors that determine a person’s choice to undergo a surgical procedure rather than modify lifestyle behaviours.

**Obesity defined**

One of the principal causes of being overweight and obese is an energy imbalance between calories consumed and calories expended over time (WHO, 2013). Genetics, environment and physical activity also play a role (Healey, 2015), though diet and exercise are two factors that an individual can modify to maintain a normal healthy weight (Sweeting, Hocking, & Markovic, 2015). The World Health Organisation (WHO) recognises the formula used to calculate obesity as a simple weight-for-height index (weight in kilograms divided by the square of height in metres), which gives a numerical figure referred to as Body Mass Index (BMI) (Healey, 2015; Organization, 2013). People with a BMI greater than 25 are classified as overweight and those with a BMI of 30 are considered obese, the bariatric person (Healey, 2015).

The literature recognises the current BMI classification system as failing to identify commonly associated comorbidities (Arterburn & Courcoulas, 2014; Caravatta, Petry & Cohen, 2016) including cardiovascular diseases, diabetes, musculoskeletal disorders and some cancers (Organisation, 2013), many conditions of which can be remitted with weight loss surgery (Arterburn & Courcoulas, 2014; Caravatto et. al., 2016; Sharman et al., 2015). Additionally, there is some thought that the medicalisation of obesity validates the use of surgery for treatment and thus, surgical procedures are fast becoming the normalised disease treatment and prevention tool (Ortiz, Kawachi, & Boyce, 2016). Medicalisation locates the problem at the level of the individual rather than the broader social environment (Ortiz et al., 2016). The individual then becomes
the person who must address the problem by accessing a health service rather than the attention being targeted toward the public health of a population seeking to address the underlying factors contributing to obesity (Ortiz et al., 2016). The risk is that the focus and support for suppressing and addressing environmental determinants of obesity, such as regulating the advertising of junk food, will be adversely impacted (Ortiz et al., 2016). Despite considerable research, policy and intervention efforts targeting obesity as a global concern, the problem continues to escalate, and a growing number of people seek a solution through weight loss surgery (Arterburn & Courcoulas, 2014; Brennan, Murphy, de la Piedad Garcia, Ellis, Metzendorf, & McKenzie, 2016).

**Bariatric surgery**

Surgical options for weight loss offer more than just the benefit of a solution for obesity due to their ability to impact a constellation of associated disorders that comprise the metabolic syndrome. As a result, the surgery undertaken to achieve weight loss is referred to as metabolic or bariatric surgery (Sarela, 2014). Recent, high-quality, randomised, clinical trials confirm that bariatric surgery should be an integral part of a care pathway for the obese diabetic patient (Aird, Hong, Gmora, Breau, & Anvari, 2017). This care pathway is also supported by Celik (2016), who suggests that bariatric surgical procedures achieve far better results than medical treatment, specifically in the remission of type 2 diabetes. The exact reasons for this success are unknown although restricted calorie intake, changing gut-brain axis, food absorption and the alteration of small intestine hormones are thought to be implicated (Arterburn & Courcoulas, 2014; Celik, 2016).
The surgical procedures of interest to this study are the Laparoscopic Gastric Band (LGB), Laparoscopic Sleeve Gastrectomy (LSG) and the Roux en-Y (RYGB). The LGB and LSG are considered restrictive procedures and the RYGB a combination of both restrictive and malabsorptive. The LGB requires a ‘band’ to limit the diameter of the stomach. This band can be removed when the desired weight loss is achieved. The LGB dominated bariatric surgery in 2008, totalling 68% of all procedures performed worldwide; this plummeted to 10% worldwide in 2013 (Angrisani et al., 2015b). LGB failure rates included band slippages, band erosion and failure to lose weight, with these patients proceeding to LSG, though results indicate this subgroup are prone to fail in achieving weight loss even with the LSG (Guetta, Ovnat, Shaked, Czeiger, & Sebbag, 2015). Correspondingly demand for LSG, a permanent procedure that entails fashioning or resizing of the stomach by 70% to form a small gastric pouch (Arterburn & Courcoulas, 2014; Weinstein, et al. 2014) peaked in 2013 at 37% of all bariatric procedures globally with the procedure RYGB also increasing in procedures performed (Angrisani et al., 2015a; Nguyen, Vu, Kim, Bodunova, & Phelan, 2016; Rebibo et al., 2016).

In Australia, the move away from LGB to LSG has been evident, particularly in the private sector, where the proportion of LSG procedures performed increased from 23% in July 2013 to 52.8% in July 2014 (Sharman et al., 2015). LSG is also currently the most performed bariatric procedure in the United States of America (USA)/Canada and the Asia/Pacific regions (Angrisani et al., 2015b). This is regardless of the fact that discrepant data suggests that very experienced, surgical centres turning over large volumes of LGB with rigorous programs, inclusive of follow-up, and long-term post-surgical care have achieved comparative results to the LSG in weight loss (Arterburn & Courcoulas, 2014; Sarela, 2014).
**Long-term efficacy of laparoscopic sleeve gastrectomy**

There are few valid, large-scale studies indicating the long-term efficacy of LSG with regard to remission of excess weight loss (EWL) and associated co-morbidities, including post-surgery satisfaction (Cox & Kashyap, 2015; Sarela, 2014). The possibility of weight regain within five years negates the overriding benefits of initial weight loss, and its potential protection from a constellation of weight-related disorders (Abeezar, 2014). Campos (2013), postulates a number of reasons why bariatric surgery is successful for some and not others; noting variables such as lack of adherence to nutritional guidelines, physical inactivity, age and a higher BMI at surgery (Arterburn & Courcoulas, 2014). Those who follow nutritionally sound eating patterns and exercise regularly post-surgery achieve the best results (Neil & Roberson, 2015), with long-term adherence to diet and exercise found to be the key to success (Artero, Ferrer-Márquez, & Soriano-Maldonado, 2016). The ability to maintain weight loss requires an understanding of prevention and intervention to address and change the other range of encompassing factors that led to the person being obese. Brenan (2016) does not limit causalities to overeating but instead suggests a number of areas such as individual psychology, activity, the environment, food consumption and the production of food. This view is supported by Natvik et al. (2014) and Neil & Roberson, (2015) who suggest that changing the practices of an individual is crucial in maintaining weight loss post bariatric surgery; that patient-driven change is what determines success (Natvik et al., 2014; Neil & Roberson, 2015).
Research gaps

Although the literature canvases causality and incidence of the overweight, surgical options of choice, and the short-term benefits of surgery, there is little attention to the reasons people seek surgical interventions as a solution for being obese. Understanding these experiences could assist with improvements in the information and care required for bariatric patients to ensure enhanced outcomes. There is a need for qualitative studies that explore patient’s experiences and the influences that lead them to the decision to undergo bariatric surgery.

Conclusion

This chapter highlights that bariatric surgery is often viewed as the primary choice of treatment for the obese person, specifically for those who have associated comorbidities. However, there are limited long-term studies that support sustained weight loss and disease remission in those opting for weight loss surgery. The ability of an individual considering bariatric surgery to access valid, non-biased reliable information is also unknown and requires further enquiry. This information, in addition to the experiences of the obese in the decision-making process, will inform beneficial interventions that can be developed and implemented by healthcare professionals to ensure best possible outcomes. These outcomes could very well change the success rates in maintaining a healthy weight and lifestyle post-bariatric surgery.
Significance and aims

Possible outcomes of this research will be the identification of how a person’s past weight issues and experiences influence their decision making to undergo a surgical intervention to achieve weight loss. Additionally, the experiences of the individual post-surgery will be highlighted, the difficulties experienced, along with the benefits identified by participants. Findings from this study will assist in informing policy, programs and practice with practice, policy and research recommendations related to the support of people seeking weight reduction solutions.

Research questions

1. What information is sourced by individuals contemplating weight loss surgery?
2. What are the personal experiences and sociocultural influences that determine an individual’s decision to opt for surgery as a solution for their weight problem?
3. How do individuals’ experiences post-surgery influence their reflections on their decision to have weight loss surgery?

Glossary of terms

*Bariatric surgery*: Surgery that promotes weight loss by changing the digestive system’s anatomy, limiting the amount of food that can be eaten and digested.
**Body Mass Index (BMI):** The World Health Organisation (WHO) recognises the formula used to calculate obesity as a simple weight-for-height index (weight in kilograms divided by the square of height in metres), which is a rough guide and gives a numerical figure referred to as Body Mass Index (BMI). People with a BMI greater than 25 are classified as overweight and those with a BMI of 30 are considered obese or bariatric.

**Comorbidities:** Diseases associated with obesity such as cardiovascular disease, diabetes, musculoskeletal disorders and some cancers.

**Excess Weight Loss (EWL):** Excess weight is the kilograms to be lost to return weight to a healthy BMI of between the ranges of 20 to 25.

**Human Research and Ethics Committee (HREC)**

**Laparoscopic Gastric Band (LGB):** The surgery is laparoscopic where a restrictive ‘band’ limits the diameter of the stomach. This can be removed once desired weight loss has occurred.

**Laparoscopic Sleeve Gastrectomy (LSG):** The surgery is laparoscopic where the stomach is reduced in size by approximately 70% to form a small pouch. This restricts the amount of food which can be eaten and thereby causes weight loss. This is a permanent procedure.

**Metabolic syndrome:** A cluster of conditions, increased blood pressure, high blood sugar, excess body fat around the waist, and abnormal cholesterol or triglyceride levels. These occur together increasing the risk of heart disease, stroke and diabetes.

**Survey Monkey:** Online survey site that collates and analyses data.
Roux en - Y Surgery (RYGB): Formation of a small pouch from the stomach and connecting the newly created pouch to the small intestine. This procedure is commonly called gastric bypass.
Structure of the thesis

This first chapter has provided the introduction to this thesis and described the background, significance and the purpose of this research study. It has explained how this study is to be guided by the research questions and contains the glossary of the most significant terms used in this thesis.

The literature review relevant to this research study is presented in the second chapter and explores the available literature available on weight loss surgery. The research shows exponential growth in laparoscopic sleeve gastrectomy (LSG) and highlights that there is limited data on the success rates of weight loss surgery greater than one year; specifically, in the years three to five years. The individual perspective seems to have been omitted in the studies in the quest to show that weight loss surgery (bariatric) and specifically LSG, have dramatic weight loss results and can remit associated medical conditions.

The third chapter discusses the methodology used in this study. The research design, study sample and setting, the method of data collection and a description of the data analysis are presented. The chapter also introduces the Health Belief Model as the theoretical framework used to underpin this study. The personal assumptions of the researcher, and the trustworthiness and ethical considerations of the study are also discussed.

The findings, along with themes and subthemes that emerged during analysis of data are presented in chapter four. The demographic data for the study participants are described to add meaning and context to the findings.

The fifth chapter discusses the findings, along with its limitations and concludes the study. The findings of this study are explored through the theoretical lens of the
behavioural learning theory, specifically the Health Belief Model and within the context of existing literature. Finally, the study’s limitations, implications for further research and recommendations are presented with the aim to improve the experience of an individual seeking weight loss, inform health professionals and policy and decrease health care costs.
CHAPTER TWO
LITERATURE REVIEW

Introduction

This chapter reviews the literature informing the current study, and focuses on the bariatric person, surgical procedures and investigation into the various outcomes and their time frames. Additionally, literature was also sought that explored the documented experiences of bariatric people undergoing surgery and their thoughts and perceptions.

Literature search questions

Search inquiry questions were formulated to yield information regarding:

1. What type of surgery is most commonly used to treat obesity and what is the efficacy of this procedure?

2. What are the patient’s experience in bariatric surgery and the satisfaction post-surgery?

Search strategy

Reportedly, 60% of the articles written on bariatric surgery have been published since the year 2000 (Ahmad, Ahmad, Kohl, Ahmad, & Ahmed, 2015). An increase in papers has continued in the last 10 years with the top cited papers originating from the USA, Canada, and Australia. Notably, these are the countries with the highest obesity rates in the developed world.
A search of the literature was conducted in March 2016, July 2016 and finally in September 2017, and based on published articles relevant to the research questions. The most current literature regarding bariatric surgery was the inclusion criteria and how this literature informed or supported the research questions. Exclusion criteria required articles to be published in English since 2010, and searches were not limited by study design, any design containing significant information related to obesity, surgery, and associated co-morbidities was included. This was determined by reading the abstracts and the reference lists of included articles to further identify any studies which fit the research criteria (reference chaining). Grey literature such as that produced by governments or organisations such as the World Health Organization (WHO) were also utilised for facts and figures to support the findings. The search words ‘bariatric surgery’, ‘decision-making’, ‘psychosocial’, ‘obesity’ ‘stigma’, ‘perioperative nursing’, ‘BMI’, ‘obesity’, ‘metabolic surgery’, ‘health policy’, ‘perioperative care/trends’, ‘perioperative experience’, ‘sleeve gastrectomy’, were utilised. The initial search for ‘bariatric surgery’ returned 181 book reviews, 42 book chapters, and 10,274 journal articles.

Journal articles were searched using the search words ‘bariatric surgery’ ‘sleeve gastrectomy’ ‘body mass index’ ‘decision-making’ ‘metabolic surgery’ ‘type 2 diabetes’ and ‘trends’ for the literature review. Databases searched include PubMed, CINAHL, Cochrane, JBI, Proquest, SAGE, and MeSH on Demand. Full details of research results and included articles can be found in Table 1.
Global trends in obesity

In the decades since 1980, obesity across all age groups has doubled and now challenges public health globally, affecting children, adolescents, and adults (Arterburn & Courcoulas, 2014; Brennan et al., 2016; Finucane et al., 2011; Natvik, Gjengedal, Moltu, Raheim, 2014; WHO, 2013). Obesity has the highest prevalence in the developed countries, such as the United States of America (USA), New Zealand (NZ),
Australia (AUS) and the United Kingdom (UK) (Colagiuri et al., 2010; Healey, 2015). This trend is changing dramatically, with rates increasing in the middle to low-income countries as urbanisation, income and the availability of energy-dense food increases (Brennan et al., 2016; WHO, 2013). Whilst considerable research, policy and intervention efforts targeting obesity are being implemented worldwide, the problem continues to escalate (Brennan et al., 2016).

In Australia, the increasing rate of the overweight and obese population has increased proportionally over time and the results indicate men and women living within the inner regional and remote areas of Australia are more likely to be overweight or obese, compared with men and women living in major cities (Healey, 2015). Other concerning information, correlating with the increasing waistlines of Australian adults, is that Australian children are also gaining weight. It is estimated that in 2011-12, 25.7% of Australian children were considered overweight or obese (Healey, 2015). As this trend continues, it is estimated that by 2025 there will be an additional one-third of children aged five to 19 who will be overweight or obese, representing a total of 16.9 million Australians (Healey, 2015).

**Obesity defined and classified**

The numerical figure referred to as Body Mass Index (BMI) is utilised to calculate and place an individual within a defined category of a healthy or unhealthy weight (Healey, 2015; WHO, 2013). People with a BMI greater than 25 are classified as overweight (Healey, 2015). According to the American Society for Metabolic and Bariatric Surgery there are three categories of obesity; class 1 is a BMI of 30 - 34, whilst class 2 is serious obesity with a BMI of 35 - 39.9, and class 3 is defined as severe
obesity and a BMI of 40 - 49.9. Any BMI of 50 or greater is classified as super obese (Neil & Roberson, 2015).

In the assessment of children, Healey (2015) suggests that BMI calculations used for adults are not suitable for children and they should be referred to a dietitian or doctor who can use a modified BMI chart in conjunction with weight, height, and growth charts. There are some pitfalls of the BMI classification system and authors such as Caravatto, Petry and Cohen (2016) suggest fat distribution is a key determinant for health risks in the obese patient and argue that a BMI does not factor in fat distribution (Healey, 2015). Visceral fat, which is fat around the major abdominal organs in the body, leads to increased risks of cardiovascular diseases and insulin resistance, whilst peripheral fat distribution prevents metabolic syndrome (Healey, 2015). Accordingly, a person with a high BMI may not have increased cardiovascular risk if the fat is accumulated in peripheral locations (Caravatto, Petry, & Cohen, 2016; Healey, 2015). The other area where BMI classifications may be misleading is that they do not differentiate between race, age or gender. There is a correlation between age and adiposity, leading to higher levels of glucose in the elderly when compared with younger subjects with the same BMI. Body fat composition between men and women is also different and it is recommended that this is taken into consideration when assessing the obese person (Caravatto et al., 2016).

BMI classification is also often discussed in the literature as failing to identify commonly associated comorbidities (Arterburn & Courcoulas, 2014; Caravatta, Petry & Cohen, 2016) such as cardiovascular diseases, diabetes, musculoskeletal disorders and some cancers (Noria & Grantcharov, 2013; Organisation, 2013). Additionally, another
area where the classification of BMI in its current form is challenged is in the use as an indicator for surgery. There are many who consider the governing surgical criteria for obesity surgery as outdated, as it dates back to 1991 and fails to include the identification of associated comorbidities, many of which can be remitted with surgery (Arterburn & Courcoulas, 2014; Caravatto et. al., 2016; Sharman et al., 2015).

**Comorbidities associated with obesity**

Obesity is associated with a variety of conditions and comorbidities including stroke, dyslipidaemia, type 2 diabetes, hypertension, osteoarthritis, and increased mortality (Fung, Wharton, Macpherson, & Kuk, 2016). Other conditions that are associated with obesity include obstructive sleep apnoea, polycystic ovary syndrome, and degenerative joint diseases in conjunction with psychiatric conditions such as eating disorders, depression and anxiety (Maffazzioli, Stanford, Reyes, et al., 2016). There are also studies suggesting an indirect relationship between increased body mass and cognitive impairment (Handley, Williams, Caplin, Stephens, & Barry, 2016). This relationship may be related to medical conditions such as type 2 diabetes, hypertension, and sleep apnoea, which are comorbidities for obesity and have been shown to cause measurable cognitive impairment (Handley et al., 2016).

Psychosocial problems are another issue experienced by the obese and are often associated with stigmatisation from society, health care workers, and providers (Ambwani, Thomas, Hopwood, Moss, & Grilo, 2014). The obese are often viewed as weak, ugly, awkward, and lacking self-control (Brennan, Murphy, de la Piedad Garcia, Ellis, Metzendorf, & McKenzie, 2016; Neil & Roberson, 2015) and have been found to be discriminated against in the workplace (Neil & Roberson, 2015). A quantitative
study conducted by Ambwani et al., (2014) sought the perception of people towards the obese. The 578 respondents were from a public university in the Mid-Western United States and the survey, a five-point scale on the ‘Attitudes toward obese people’, was conducted. The results indicated that the respondents thought that the obese are inferior and could not be as successful as other workers. Respondents also indicated that they felt uncomfortable when they associated with obese people (Ambwani et al., 2014). These findings are consistent with Neil and Roberson, (2015) who propose that negative attitudes towards the obese can extend across gender and race initiating a feeling of disgust, particularly in people who have struggled with weight themselves.

The obese themselves are often distressed by their body image, and experience difficulties in their interpersonal and intimate relationships. They also experience barriers to progressing in their workplace, namely to get or maintain a job (da Silva & Maia, 2013). Eating is often experienced by the obese person as a coping behaviour and is ever-present in their life. Consumption of food is a strategy to deal with negative internalised feelings and can be difficult to control by diet and lifestyle changes, individuals often requiring psychotherapy for assistance in changing eating behaviours, even after bariatric surgery to control eating (da Silva & Maia, 2013). The obese themselves sometimes see themselves as failures when they are unable to maintain weight loss (da Silva & Maia, 2013).

**Interventions: Lifestyle, medication, and exercise**

Interventions used in the treatment of obesity can be divided into conservative (non-surgical) and surgical. Evidence suggests the former, which include medication, behavioural strategies, lifestyle management, and weight loss programs have had little
impact in maintaining weight loss in the overweight and obese (Arterburn & Courcoulas, 2014; Noria & Grancharov, 2013). The ability to maintain these programs appears to be difficult for the obese person whether they be lifestyle changes or dietary restrictions. Whilst these changes or restrictions are implemented people usually achieve weight loss results, but these results are short-lived and difficult to maintain. When treatment or the program is ceased, or the desire to continue diminishes, weight gain reoccurs (Arterburn & Courcoulas, 2014). It is suggested by da Silva and Maia (2012), that obesity is often excused by the obese as a hereditary trait and although personal eating behaviour exacerbates this, the obese see this behaviour as difficult to control (da Silva & da Costa Maia, 2012).

**Causes of obesity**

One of the principal causes of overweight and obesity is an energy imbalance between calories consumed and calories expended over time (Organization, 2013), though diet and exercise are two factors that an individual can modify to maintain a normal healthy weight (Sweeting et al., 2015). Da Silva and Maia (2013) suggest that whatever means is used to lose weight, there are psychological factors that play a vital role in the importance of realistic and reasonable expectations regarding weight loss (Natvik et al., 2014). Genetics, environment, and physical activity also play a role (Healey, 2015), along with socioeconomic inequality, low education, geographical location as well as producers of obesity (Ortiz, 2016). The producers of obesity are food manufacturers and marketing campaigners promoting unhealthy foods with misleading labelling and the bombardment of mass media messages. In conjunction with personal strategies for weight loss, public policy can assist in reducing obesity.
within the broader social environment and requires addressing to prevent individuals moving from the overweight category towards obesity (Colagiuri et al., 2010). This addresses the broader social environment, which is culpable rather than an individual problem (Healey, 2015; Ortiz, 2016). In stark contrast to the limited progress of tools such as behavioural and drug treatment in treating weight loss, is the rapidly expanding surgical bariatric options that are providing treatment for obesity and related metabolic disorders (Arterburn & Courcoulas, 2014).

**Surgical intervention**

Amid much debate amongst the medical community, public health practitioners and the American Medical Association (AMA), reclassified obesity in 2013 from a condition to a disease. Instantly, one-third of the US population had a medical disease. This opened the door to obesity treatments that could be reimbursed and funded through government programs (Ortiz et al., 2016), this reclassification has not occurred in Australia. Since this time demand for bariatric (weight loss) surgery has exponentially increased and with improved surgical technique and the minimization of complications, is now considered a safe and effective means of weight loss compared to fifty years ago when the procedure was first developed (Alvarenga et al., 2016; Angrisani et al., 2015a; Arterburn & Courcoulas, 2014; Falk et al., 2016; Weinstein et al., 2014).

There is some thought that the medicalisation of obesity validates the use of surgery for treatment and this surgical procedure is fast becoming the normalised disease treatment, and prevention tool (Ortiz et al., 2016). The concern is that medicalisation locates the problem at the individual rather than being a broader population health issue (Ortiz et al., 2016). The individual then becomes the person
who must address the problem by accessing a health service rather than the attention being targeted toward the public health of a population seeking to address the underlying factors contributing to obesity (Ortiz et al., 2016). The risk is that the focus and support for suppressing and addressing environmental determinants of obesity, such as regulating the advertising of junk food, will be adversely impacted (Cohen, 2013; Ortiz et al., 2016).

Funding of surgery depends largely on geographical location and the access to private or public healthcare. In Australia and the UK, those considered for surgery have a BMI of 30 or more and have either poorly controlled diabetes, increased cardiovascular risk or recent onset of type 2 diabetes. Surgery is generally recommended after non-surgical approaches to weight loss have failed and where surgery is considered the most effective intervention (Sharman, Hensher, Wilkinson, Campbell, and Venn, 2016). Classification is important when prioritising surgery and for patients being placed on government-funded wait lists, although most bariatric surgery in Australia is currently conducted privately (Sharman et al., 2015). Despite this, access to publicly funded bariatric surgery has been growing in demand and there is concern that there are challenges in providing equitable and timely access to those requiring surgery (Sharman et al., 2015). Factors that are noted to be problematic are prioritising patients, waiting times, choice of procedure and the provision of re-operative bariatric surgery whether due to complications post-surgery or due to weight regain. Another issue is there is not the provision, within the public health structure for the additional surgery requirement of body contouring, which removes excess skin folds post weight loss. It is suggested by Sharman et al., (2015) that it is important to review policies due to the fact that obesity is not declining and there are identified gaps that require addressing.
The four major types of bariatric surgery are classified as the Roux-en-Y, adjustable gastric band, sleeve gastrectomy, and the biliopancreatic diversion with duodenal switch. These surgery options involve the manipulation of the stomach or small bowel to achieve malabsorption, or restriction, or both; the outcome being restricted food intake or absorption leading to weight loss (Neil & Roberson, 2015). Surgical techniques have improved dramatically since the 1990’s and are less invasive resulting in the decreased risk of complications (Arterburn & Courcoulas, 2014). The most common risks postoperatively include haemorrhage, haematoma, vomiting, wound infection, and a leaking anastomosis (Arterburn & Courcoulas, 2014). Other complications that do not require reoperation are nausea and nutritional deficiencies.

There are also emerging observational studies that indicate that the Laparoscopic Sleeve Gastrectomy’s (LSG) is associated with the long-term risk of substance misuse disorders and even suicide (Arterburn & Courcoulas, 2014).

The emergence of bariatric surgery as a treatment for weight loss and obesity

Bariatric surgery as an intervention, particularly laparoscopic sleeve gastrectomy (LSG), is currently considered the most effective management of sustained weight loss with associated benefits of improvement and often remission of comorbidities (da Silva & Maia, 2012; Natvik, et al., 2014). The perceived benefit is three-fold; the obese person loses weight and has remission of their comorbidities, and the health system bears less long-term costs in medical care (Wang & Furnback, 2013; Wiltberger, Bucher, Schmelzle, Hoffmeister, & Dietrich, 2015). The American Society for Metabolic and Bariatric Surgery (ASMBS) proposes that adolescent patients with
severe obesity should be offered surgery relatively early to address obesity and prevent co-morbidities developing (Maffazioli, Stanford, Reyes, et al., 2016).

Restrictive procedures are considered to cause fewer complications such as malnutrition and diarrhoea. The two procedures identified as restrictive are the Laparoscopic Gastric Band (LGB) and LSG; both procedures having reached their peak during a 10-year time frame from 2003 to 2013 (Agrisani et al., 2015; Debs et al., 2016). The LGB requires a ‘band’ to limit the diameter of the stomach. This band can be removed when the desired weight loss is achieved. LSG is currently the most performed bariatric procedure in the USA/Canada and the Asia/Pacific regions (Agrisani et al., 2015b). This is regardless of the fact that discrepant case selection data suggests that very experienced, surgical centres turning over large volumes of LGB with rigorous programs, inclusive of follow-up, and long-term post-surgical care had achieved comparative results to the LSG weight loss (Arterburn & Courcoulas, 2014; Sarela, 2014). It is suggested by Arterburn and Courcoulas (2014) that weight loss data from LGB matching that of LSG is rare in surgical literature and further research is needed to identify optimal requirements of an LGB program (Arterburn & Courcoulas, 2014). Re-operation rates are higher for LGB however, this may simply be a reflection of the reversible nature of this particular procedure compared with the all the other permanent procedures (Arterburn & Courcoulas, 2014).

Outcomes of bariatric surgery: Weight loss and remission of co-morbidities

The impact of surgical outcomes in 189 477 patients by 1634 surgeons in 720 centres between the years 2012 to 2014 was conducted by using data from the American Society for Metabolic and Bariatric Surgery (MBSAQIP) data registry. The conclusion
was that laparoscopic sleeve gastrectomy (LSG) is a safe procedure with a low morbidity rate to treat obesity (Berger et al., 2016).

Weight loss is the accepted benefit of having bariatric surgery, particularly the LSG, where there is a 50-75% success rate in excess weight loss in the 12 months postoperatively (Cox & Kashyap, 2015). In treating type 2 diabetes it is commonly understood that diabetes is a chronic disease and is difficult to control (Halpern, Cercato, & Mancini, 2016), curiously this is also the same issue for the obese patient. Disease resolution is the true benefits of bariatric surgery, with Sarela (2014) citing a systematic review of 20,000 patients who reported improvements/resolution in diseases; 73% diabetes, 63% hypertension and hyperlipidemia 65% at five years, and associated loss of excess weight of 54% (Sarela, 2014). This study is in contrast with Cox and Kashyap (2015) who conducted a study of 443 adults who underwent LSG between April 2006 and February 2013. The outcome of the study was to determine weight loss and comorbidities at one, three and five years. The results demonstrate that weight loss decreased with time, along with remission rates of diabetes and cholesterol (McGrice & Don Paul, 2015). However, the short-term results were far more impressive than a longer study time frame (Arterburn & Courcoulas, 2014; Yang, Wang, Liang, Song, & Gu, 2013). Another study indicates that regardless of the type of bariatric surgery and weight loss maintained, patient’s satisfaction differed depending on the type of eating behaviour they exhibited prior surgery. A quantitative, retrospective study by Engstrom (2015) of 49 super obese patients two years post LSG and Roux-en-Y, classified subjects as those with ‘good eating control’ and those with ‘poor eating control’. As suggested by da Silva & da Costa Maia, (2012) there are two types of eaters, emotional eaters and those who have addictive eating patterns. The study undertaken by Engstrom (2015) was to qualify the hypothesis that this subgroup, the super obese, continue to
experience problems with eating control post weight loss surgery. The results of the study suggest weight loss was comparative between the two groups at one and two years. However, the results were not the same for the perceived benefit of ‘quality of life’, as those patients with ‘poor eating control’ experienced worse mental health and slightly worse physical health two years post-surgery then the classified group ‘good eating control’ (Engstrom et al., 2015).

Medications and lifestyle interventions are unable to compete with the impact of bariatric surgery such as LSG on diabetic status (Cummings, 2016; Fung et al., 2016). Recent, high-quality, randomised, clinical trials confirm that metabolic or bariatric surgery should be an integral part of a care pathway for the obese diabetic patient (Aird, Hong, Gmora, Breau, & Anvari, 2016). This is also supported by Celik (2016), who suggests that metabolic and bariatric surgical procedures achieve far greater results than medical treatment – specifically remission of type 2 diabetes (Celik, 2016).

Linked with the weight loss that is attained by LSG, is the evidence of reduced plasma protein biomarkers thought to be associated with the cancer process. A study of patients at three months post LSG found that biomarkers for cancer had halved and the participants mean excess weight loss was 44% at three months (Farey, Fisher, Levert-Mignon, Forner, & Lord, 2016; Linkov et al., 2012). Remarkable short-term weight loss is achievable from surgery to 12 months, however, whether this loss can be maintained in the long term along with associated benefits of disease remission is still unknown (Sarela, 2014). Though Cummings (2016) suggests that long-term, all-cause mortality is minimised amongst those who undergo surgery in contrast with those obese persons who do not (Cummings, 2016).
There are few valid, large-scale studies indicating the long-term efficacy of LSG with regard to remission of excess weight loss (EWL) and associated co-morbidities and post-surgery satisfaction (Cox & Kashyap, 2015; McGrice & Paul, 2015; Sarela, 2014). The possibility of weight regain within five years negates the overriding benefits of weight loss – the treatment and protection from a constellation of disorders (Sarela, 2014). Campos (2013), postulates a number of reasons why bariatric surgery is successful for some and not others; noting variables such as lack of adherence to nutritional guidelines, physical inactivity, age and a higher BMI at surgery (Arterburn & Courcoulas, 2014). Those who follow nutritionally sound eating patterns and exercise regularly post-surgery achieve the best results (Neil & Roberson, 2015), with long-term adherence to diet and exercise the key to success (Artero, Ferrer- Marquez, & Soriano-Maldonado, 2016). While bariatric surgery is safe and produces timely results, Sarela (2014) and Campos (2013), propose that further research is warranted to establish the remission rates of weight and disease post-surgery.

**Patient satisfaction**

The obese may be unaware of the current research on LSG, that indicates weight loss may not be long-term and regaining half of their excess weight is a possibility. Information such as this is required at consultation so those considering bariatric surgeries do not believe that the ‘miracle’ of surgery will be effortlessly ‘life-changing’ (Cox & Kashyap, 2015). The results of studies that indicate weight regain post-bariatric surgery are concerning, particularly as decision-making prior to surgery has been shown to be largely based on the benefit of rapid weight loss and mitigating disease risks in the obese person’s life (Cox & Kashyap, 2015; Sarela, 2014).
A qualitative study (Park, 2016) of 14 obese participants planning surgery in the US, suggests that a person’s autonomous decision impacts the outcome post-surgery, including weight regain. That for the person contemplating surgery they must be aware that it requires effort to prevent weight gain post-surgery. An aspect that was noted in Park’s (2016) study, though not commented on, was that at the time of completing the survey, of the 14 participants, only four were employed. This supports other data available (Neil & Roberson, 2015) that, indicates being overweight and obese affects employment opportunities (da Silva & Maia, 2013).

Literature reveals many reasons to undergo bariatric surgery, with the improvement of medical conditions and quality of life as the two most listed reasons (Engstrom et al., 2015; Neil & Roberson, 2015). A study by Munoz et al., (2007) involving a mixed methods approach of 109 severely obese patients, suggests that 73.4% of the patients reported medical conditions as the primary reason for surgery. Other factors, which included quality of life experienced after surgery, saw participants able to increase their physical activity and improve sexual and romantic relationships (Munoz et al., 2007). This data is supported by Park (2016), whose study demonstrated that though the participants did not choose surgery for lifestyle reasons, they expressed positive emotions after weight loss post-operatively. Therefore, the expectations of surgery are viewed as a solution for a multitude of problems and for many the last alternative after experiencing years of unsuccessful attempts to lose weight (da Silva & da Costa Maia, 2012).

In a study using a qualitative approach (da Silva & Maia, 2013), 30 morbidly obese patients (20 women and 10 men with a mean age of 39 years and a mean BMI of 47.5) were interviewed using open-ended questions with the assistance of an audio recording. Three thematic areas emerged from data collected; obesity, eating behaviour
and treatment. Participants realised that their personal eating habits contributed to their obesity, however, they saw this problem as difficult to address (da Silva & Maia, 2013). To many patients, bariatric surgery identified a new life or beginning where health professionals take control, where surgery is understood as life-changing, without them having to be active participants (Halpern et al., 2016). Engstrom, as cited by da Silva and Maia (2013) suggests that these patients do not include themselves as part of the treatment and have the idea that they are powerless. They expect that post-surgery they will have a sudden ability to control their eating behaviour and lives. This is supported by other literature (Brennan, Murphy, de la Piedad Garcia, Ellis, Metzendorf, & McKenzie, 2016; Engstrom et al., 2015; Neil & Roberson, 2015) that subscribe to the same thought that complex factors are involved in weight gain. The ability to maintain weight loss requires an understanding of prevention and intervention to address and change the other range of encompassing factors that led to the person being obese. Brenan (2016) does not limit this to overeating but instead suggests a number of areas such as individual psychology, activity, the environment, food consumption and the production of food. This view is also supported by (Natvik, Gjengedal, Moltu, & Råheim, 2014; Neil & Roberson, 2015) who suggest that changing practices of the patient are critical to them in maintaining weight loss post bariatric surgery; that patient-driven change is what determines success. Previous failed weight loss attempts, eating to deal with negative behaviour and exercise routines all affect the result a person will experience post-surgery. Intense follow-up has shown improved results in weight loss and weight maintenance respectively (Brennan, Murphy, de la Piedad Garcia, Ellis, Metzendorf, & McKenzie, 2016; Engstrom et al., 2015).

Those who are funded for bariatric surgery under the public health care system often become disillusioned with their excess weight loss, which causes excess skin folds
These skin folds potentially require removal by body contouring surgery. This surgery is not covered by the public health sector as this is considered cosmetic surgery and not part of a two-step process in bariatric surgery. This is particularly concerning for those who are older and have skin that is less elastic. Body contouring, abdominoplasty, or apronectomy are not covered by public health funding as it is considered an aesthetic concern. In an observational study at an obesity clinic, it was observed by Throsby (2012) that clinicians were flippant in their replies to the obese when the loose skin was mentioned. For those who had lost weight, their loose skin was often more problematic than the fatness they had undergone surgery to address. A lack of finance rendered them powerless to undergo surgery privately. In fact, excess skin almost became a disincentive to lose weight (Throsby, 2012).

Collateral benefits of surgery such as increased mobility, improved lifestyle, and social interaction are some of the benefits that patients can experience post-surgery (Throsby, 2012). However, not all patients experience disease remission. The weight that was once blamed for attributing the disease is no longer a causative factor and other factors such as family history or eating patterns must be identified (Engstrom et al., 2015; Throsby, 2012). Even if surgery is performed, it does not make the obese immutable to gaining weight if lifestyle and behaviour remain unchanged (Throsby, 2012).

Decision making for bariatric surgery

Bariatric surgery is now considered the safest and most effective treatment in the management of a patient who is obese (Weinsteing, Marascalchi, Spegel, Saunders, Fagerlin, Parikh, 2014; Noria & Grantcharov, 2013; Sarela, 2014). However, despite
the sudden increase of research evidence and positive media publicity, there appears to be conflicting data with regards to the benefits associated with this surgery. The remission of obesity-related diseases and duration rates of weight loss, the risk of reoperation, and the long-term metabolic side effects are all factors that should be considered in the decision-making process for bariatric surgery (Abeezar I. Sarela, 2014). Consequently, it is suggested longitudinal studies are required to evaluate the relationship between weight loss, compliance and outcomes experienced by the patient post-bariatric surgery (Engstrom et al., 2015). Studies that identify bariatric surgery as a treatment for weight loss are conducted usually within a quantitative paradigm, this does not allow for patient’s perceptions, experiences, expectations and beliefs to be understood and explored (da Silva & Maia, 2013; Fung et al., 2016).

Addressing the factors that are contributing to the growing waistline of our population is a global concern (Celik, 2016). Certain lifestyle behaviours can influence and increase the risk of a number of health conditions. A healthy diet and regular exercise can prevent the onset of obesity, diabetes and cardiovascular disease along with the cessation of smoking and excessive alcohol intake (Sweeting et al., 2015). It is suggested that each person is responsible for their health and should take appropriate measures to ensure healthy outcomes (Campos, 2013). Public health resources are valuable and limited with the procedures receiving funding proven to be the most effective in tackling obesity and disease remission (Wang & Furnback, 2013). Inconsistencies in the results of bariatric surgery long-term (greater than 1 year) make informed decision-making difficult for the obese person considering surgery.

A shared decision-making process is proposed by Arterburn & Courcoulas (2014), where the clinician’s expert judgment is clearly communicated, and the patient’s own preferences and values are encouraged so they are meaningfully involved (Arterburn &
Courcoulas, 2014; Neil & Roberson, 2015; Sarela, 2014). Support by allied health workers, proposes Engstom et.al. (2015), is key in the formulation of individualised post-surgical strategies for patients and include a regular contact that extends over a number of years to gain optimal results. Informed consent is being able to weigh the benefits and risks of surgery and make a decision (Neil & Roberson, 2015). Having the correct information is paramount to good decision-making.

Conclusion

The literature review reveals that obesity is presently of considerable concern and is increasing rapidly at a pace that cannot seemingly be contained. The estimates of obesity worldwide have the World Health Organisation and governing health bodies coordinating funds and programs to stem the tide of obesity and its associated comorbidities such as cardiovascular disease and diabetes that are costing billions worldwide. The causal factors of obesity are linked to energy-dense foods and the lack of energy expended with minimal responsibility delegated to the food companies who produce food. The literature suggests bariatric surgery for many is a surgery that guarantees weight loss when all other strategies have failed and one which shows staggering success rates, particularly in the first-year post surgery.

Information on the experiences of a person who has opted for bariatric surgery are not currently described in the available literature. There are few articles that capture a person’s thoughts and experiences when seeking and deciding to undergo weight loss surgery. The conducting of one-on-one interviews with those who have had weight loss surgery will result in a fuller understanding of these experiences and guide further research into areas requiring investigation. The areas, once revealed, may assist to
improve weight loss outcomes in the obese, tailor policies and guidelines for health and highlight the accessibility of treatment options for the obese.
CHAPTER THREE

Introduction

This chapter provides a description of the conceptual approach, methods and procedures employed to investigate the experiences that lead an obese individual to make the decision to have bariatric surgery. Research design, sample, setting and the recruitment process for participants are discussed along with data collection and analysis. Ethical considerations given by the researcher and incorporated during the research process are identified and explained at the close of this chapter.

Research design

The study design used a qualitative paradigm to investigate the obese person’s experiences, attitudes, and beliefs involved in shaping their decision-making for bariatric surgery. Qualitative research is described by Braun & Clarke (2013) as rich, exciting, challenging and reflective of the messy and contradictory world in which we live. The use of interpretive methodology within the qualitative paradigm allows the identification of subjective data that will reveal recurrent patterns and themes that can assist in describing the phenomenon under study. In this study, the interpretive methodology allowed the researcher to develop an understanding of an individual’s reality, how they generate meaning from their experiences of obesity, and how this influenced their decisions related to weight management (Smith, 2015). Dialogue with participants is a strength of interpretive methodology and in this study allowed for the flexibility required when personal feelings and experiences were discussed with participants at interview.
Participants in the study were those who had undergone either a Laparoscopic Sleeve Gastrectomy (LSG), the Laparoscopic Gastric Band (LGB) or the Roux en – Y surgery (RYGB). The experiences of the participants were shared through individual phone interviews with the researcher, most of which were 40 – 60 minutes in duration. These interviews were audio recorded and then transcribed verbatim to hard copy so thematic analysis could be undertaken. Interviews were preceded by an online questionnaire, administered through Survey Monkey, which collated demographic data such as name, date, BMI and age, along with the type of bariatric surgery performed and any surgical complications experienced. The collection of demographic data through an online survey and a family health genogram assisted in adding context to the research findings (Johnson, Onwuegbuzie, & Turner, 2007).

An interpretive phenomenological methodology was valuable in that it identified representative meanings from key phrases and words, which produced themes that were distinct, coherent and representative of the participants’ experiences (Krueger & Casey, 2014). This approach and the interpretation of findings, guided by the Health Belief Model (HBM), allowed the researcher to gain insight into the obese person’s decision-making for bariatric surgery.

**Health Belief Model: a guiding theoretical framework**

The Health Belief Model (HBM) is a cognitive perspective framework that proposes individuals choose an action that will lead to positive outcomes in relation to their health (Carpenter, 2010), and as such is ideal to assist with providing a lens through which data in this study could be gathered and analysed. The model’s guiding principle is that behavioural change is based on the appraisal of benefits and barriers to
an action (Baranowski, Cullen, Nicklas, Thompson, & Baranowski, 2003). The HBM was developed in the 1950’s by a group of social psychologists working for the United States Public Health (Baranowski et al., 2003). Their concern during that period was the failed public attentiveness to a tuberculosis screening program, which consequently stimulated the formulation of the model. Underpinning this model is the supposition that individuals are understood as being able to process information and with this cognitive understanding, then make changes to their behaviour (Baranowski et al., 2003; Daddario, 2007). In a further development, self-efficacy (the ability to carry out the desired behaviour) was included in the model and is considered an important motivator for behavioural change (Bandura & Adams, 1977). The determined behaviour then becomes a reflection of a person’s attitudes, beliefs, and expectations (Rosenstock, Strecher, & Becker, 1988). According to the HBM, the primary motivation for change is the perceived risk of a specific condition or the threat to a person’s wellbeing (Baranowski et al., 2003). The HBM consists of five major components (Table 1): perceived susceptibility, perceived severity, perceived benefits, perceived barriers and self-efficacy related to illness.
Table 1.

*Health Belief Model*

<table>
<thead>
<tr>
<th>Perceived susceptibility</th>
<th>A person’s perceived risk for contracting an illness or health condition of concern to the researchers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived severity</td>
<td>A person’s perception of the personal impact (clinical or social) of contracting the illness</td>
</tr>
<tr>
<td>Perceived benefits</td>
<td>A person’s perception of the good things that could happen from undertaking specific behaviors, especially in regard to reducing the threat of the disease</td>
</tr>
<tr>
<td>Perceived barriers</td>
<td>A person’s perception of both the difficulties in performing the specific behaviors of interest and the negative things that could happen from performing those behaviors, cues to action such as environmental events (e.g., learning that a parent had a heart attack), bodily events (e.g., aches or pains), or stories in the media that trigger perceptions of susceptibility</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>A person’s belief or confidence that he or she can perform a specific behavior</td>
</tr>
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</table>


The process of behaviour change occurs in several steps and incorporates the first four elements where perceived susceptibility, severity, benefits and barriers are intertwined. These components of the HBM are related to doing or not doing a single, specific, behaviour and are reliant on the person’s internal and physical cues. The more cues that accumulate, the more likely the person will be stimulated to take action (Daddario, 2007).

Self-efficacy, the fifth element of the HBM, is considered key to the adoption of a new behaviour (Baranowski et al., 2003). Baranowski (2003b) postulated that confident
individuals will engage in a specific behaviour until they get it right and then be able to sustain that behaviour. The motivational mechanism suggested by Baranowski (2003b), proposes three key elements that facilitate change. Firstly, resources are required for the person to change, secondly, there is the process by which that change will occur, and lastly, there are procedures to be implemented that promote change. Additional influencers of change are the people who surround these individuals, that is those with whom they spend a majority of their time, such as partners or friends (Baronowski 2003b). People from this social circle engender influence over an individual that can be perceived as either offering encouragement or discouragement in their desired health benefits (Chavis, 2012).

**Application of the Health Belief Model**

The HBM has been widely incorporated in attempts to address public health dilemmas, inclusive of the weight management problem (Romano & Scott, 2014). There is some discussion as to the relevancy and efficacy of the HBM when dealing with the topic of excessive weight and obesity, particularly as the behaviours identified within this health concern are considered habitual, and long-lasting (Daddario, 2007). For instance, a study by Romano (2014) regarding the reduction of obesity in sample groups of African and the American Hispanic population concentrated on creating positive healthy and positive behavioural changes by focusing on the individual. The study’s participants incorporated healthy lifestyle behaviours that were shown to be effective initially but relapsed early after changes had taken place (Romano & Scott, 2014). These findings are supported by Delores (2012), whose research revealed the problem of participants maintaining a behaviour as represented in the HBM and their
frustration as they attempted to lose weight with dieting (James, Pobee, Oxidine, Brown, & Joshi, 2012). Deshpande (2009) used the HBM framework to determine healthy eating amongst university students as numerous studies indicate a higher rate of fat and high-calorie foods are eaten once independence is gained (Deshpande, Basil, & Basil, 2009). The results of this study indicate that male and female university students require tailored campaigns related to gender in the encouragement of healthy eating choices. The study identifying that for females, a campaign concentrating on the severity of not eating a healthy diet would initiate change, whilst for males, the campaign focus should be directed at their perception of susceptibility to be most effective (Deshpande et al., 2009). The HBM is an adaptable framework and can be utilised within differing health situations to assist in determining an outcome or behaviour.

This current research study uses the HBM framework to assist in identifying the participant's experiences in their perception of threat (from an illness or disease) and how perceived benefits from a particular action, exceed barriers and motivate change in the individual.

Sample and setting

Participants recruited for this study were those individuals who were English speaking, over 18 years of age and had opted for bariatric surgery in Australia. The surgery consisted of the Laparoscopic Gastric Band (LGB), Laparoscopic Sleeve Gastrectomy (LSG) and the Roux en – Y (RYGB). Specificity of the sample group (those having undergone bariatric surgery from six weeks to six years) ensured participants were able to answer the questions proposed by the researcher (Sandelowski, 2000). Initially, recruitment
occurred through a Facebook advertisement consisting of two sentences posted on the researcher’s Facebook page (Appendix A) that provided a link to an information page. Those persons interested in participating then proceeded to the participant information page. The participant’s contact details were also collected via this survey site (Appendix B). Three of the eight participants were indirect respondents; that is, they were sent the survey link via friends who believed they might wish to participate.

After receiving a participant’s expression of interest, the researcher then contacted the participant by telephone, where any questions they may have had regarding the study, could be clarified. The participant was then asked to choose a code name. A link to the survey (Appendix C) was then emailed to the participant who entered their code name in the details prior to survey completion (Appendix C). Consent was explained as being completed when the participant clicked the icon ‘NEXT’ to continue to a survey designed to collect demographic and descriptive data. Data collected included the participant's age, gender, Body Mass Index (BMI), ethnicity, occupation, level of education, geographical position and an associated medical history to provide context to the qualitative findings. The researcher was able to monitor the progress of the surveys through the host site and once the online questions were completed, an interview was organised. Initially this was to be a ‘face to face’ interview, however, due to personal circumstances of the participants such as residing interstate and for some, having very young children, phone interviews were agreed to be undertaken instead. Interviews were scheduled in the months of May, June and July of 2017, took 40 – 60 minutes, were conducted at a time convenient to the participant and were audio recorded. The participants were required to sign an emailed consent form (Appendix D) and complete a family health genogram (Appendix E) prior to the interview taking place. The questions asked during the interview were loose and
semi-structured (Appendix F) allowing the conversation to flow and the participant to tell their story. This method allowed insight into the individual’s experience of the decision-making process, their perceptions and their reflections pre-and post-bariatric surgery.

Data collection

Participants located Australia-wide shared their experiences of weight loss surgery through interview. Minimal prompts were offered by the researcher, allowing the participant to have considerable control over both the interview process and the information they shared (Biggerstaff & Thompson, 2008). The utilisation of well-honed listening skills by the researcher, gained from 31 years of employment as a health professional, assisted the interviewee's experience and facilitated the research interview (Biggerstaff & Thompson, 2008). Participants who had small children opted for interviews in the evening from the comfort of their homes, whilst other participants scheduled interviews throughout the day, either from work or home, according to their preference and availability. Allowances were made for changes in time zones from Western Australia to Queensland, New South Wales and Victoria when booking participant interviews interstate.

Facial expressions and body language were unable to be observed and noted for this research study, however, the intonation of voice, emphasis, pauses and repetition were captured with the use of audio recording to enhance validity, and reliability of the information collected (Smith, 2015). Semi-structured questioning allowed the participants to freely discuss feelings and experiences, with conversation unfolding in a natural, meaningful way (Golafshani, 2003) (Appendix F). Understanding obesity to be
a sensitive issue, where conversations with participants could engender vulnerability, the researcher took care at the interview phase to reassure the participants of their anonymity and focused on building a rapport with them throughout the interview. Researchers may find participant interviews are particularly challenging when it involves health research (Corbin & Morse, 2003) as questions are asked that can trigger unsolicited responses and perhaps unpleasant feelings and memories. There is no natural endpoint in the interview setting, so perceiving when to stop an interview was reliant on the researcher's knowledge of the prepared questions, a belief that the information gathered was sufficient to interpret the participant's experience, and the participant had fully shared the story of their decision to have weight loss surgery (Thorne, Kirkham, & O'Flynn-Magee, 2004). The audio recordings were then transcribed verbatim, inclusive of pauses, to optimise interpretation of meaning. Transcripts then allowed the researcher to make notes and begin the development of themes through coding and the development of categories, sub-themes and themes (Braun & Clark, 2006).

**Data analysis**

Qualitative data analysis involves the systematic search for possibilities and patterns that generate descriptions that enlighten the phenomenon being investigated (Gale, Heath, Cameron, Rashid, & Redwood, 2013; Thorne et al., 2004). Once the participant interview was complete, notes were taken that captured the flavour of the interview and the researcher's impressions gained during the interview. The audio recording was transcribed with meticulous accuracy, including, for example, indications of pauses, mistakes and speech dynamics that indicated areas of emotion (Braun &
Initially, the interviews were transcribed verbatim by the researcher, however, after three days of typing transcripts, it was decided by the researcher that outsourcing to a reputable, verified transcription company, would be a better use of the restricted time available for the project. The time saved by this action allowed the researcher more time to listen to the audio and read and analyse the transcribed text.

Transcripts were re-read numerous times, with the researcher being immersed in the experience of the bariatric person opting for surgery (Biggerstaff & Thompson, 2008). The researcher looked at what ‘might’ be revealed by the subjective data, known as inductive reasoning (Thorne et al., 2004). The analysis journey then began to find the knowable, and patterns began to emerge, written by hand on the transcripts. The researcher made copious notes of any thoughts and observations when the transcripts were read. These notes were then refined further to represent concepts and the conceptualization of the analytic process occurred (Braun & Clarke, 2006; Thorne et al., 2004). A large number of concepts were determined by simple coding from words, expressions and chunks of data from the transcript (Gale et al., 2013). The coding system used by the researcher incorporated ‘post-it’ notes and a numbering system to refer to a concept and the position of this subjective data located in the transcript. Upon reading the participants transcripts, new concepts were added when identified, building highly developed themes (Holloway, 2017). Engaging the mechanisms of interpretation involved linking many of the same experiences by the participants and identifying the best label to represent the overarching theme. This is suggested by Thorne (2004) as enacting the analytic process. The conclusion of the analytic process was understood as complete when there ceased to be new patterns identified from the participant’s subjective data. The individual results assisted in generating an understanding of the
participant's experience, which was then extrapolated to similar phenomena experienced by the other participants (Golafshani, 2003).

Reflection on personal assumptions

My personal assumptions prior to undertaking this research were moulded by the experiences and interactions with individuals predominantly within a healthcare setting, my knowledge of surgical bariatric procedures, and the interpretation and reconciliation of events that I have witnessed. These assumptions may cause bias when interviewing and collating participant information in this study, though through correct research process this has been minimised. By delineating my personal assumptions, additional understanding can be gained by the reader as to the significance of this research and its ensuing benefits when applied to health care strategies targeting obesity.

Employed as a registered nurse within the private health sector in the Post Anaesthetic Care Unit (PACU) for more than 15 years, the researcher (now referred to as I in this section) has been able to observe and interact with patients and health professionals involved in the surgical revolution from the LGB (reversible) to the LSG (permanent) (Biggerstaff & Thompson, 2008). I relate some of these experiences here, so the reader can understand the journey that led me to undertake this research and so that by clearly identifying my assumptions, I can bracket them to minimise personal bias and maximise the truth value of the study’s findings. These experiences and interactions were key to several personal assumptions I developed related to people who chose to undergo bariatric surgery and were the impetus for embarking on this study.

In my occupation as a health professional, I have seen both the LGB at its peak and the emergence of the LSG as the favoured surgical method of weight loss. I have
witnessed a range of complexities associated with each of these surgical weight loss measures. Many bariatric patients I cared for required a range of follow up procedures post-surgery to address resultant complications. One such example was difficulty with patients accessing the adjustment port of their gastric band, resulting in radiographic screening and treatment by a radiologist to adjust the port. Other examples include patients who have complained about bands being either too restrictive and not allowing the person to eat or drink or conversely, not restrictive enough with the individual failing to lose weight. Another significant complication experienced by patients I have nursed was that their gastric bands would ‘slip’ and cause extreme epigastric discomfort, however, these issues were relieved by simple adjustments to the band or a laparoscopic band removal. Often patients reported they had not been aware that such complications existed when they decided to have their surgery and were unhappy when these problems arose.

These problems related to bariatric surgery became even more pronounced to me as the prevalent surgery moved from the LGB to the more permanent and irreversible LSG or RYGB. It is now a rarity for me to encounter the removable LGB, in my work in PACU and the experiences I now have are with patients experiencing more significant complications related to the irreversible LSG or RYGB. For many, these complications are disabling, with the individual unwell over many months or requiring repeated hospital admissions taking a toll both psychologically and financially. One patient, for instance, had a long-term intravenous catheter in her arm and shared that she administered to herself a daily 1000 ml intravenous bag of Hartmann's fluid as she couldn't keep food and fluids down orally after her LSG. She stated she had ‘only eaten one cracker biscuit in three months’. She was medicated for depression and felt as though this surgery had changed her life, though not in the way she had envisaged. She
tried to show a brave face by making some jokes, but what she wanted was to return to feeling ‘normal’ again. I knew that this patient had endured a lot of discomfort with her surgery and complications and wondered what she would say about bariatric surgery once her complications were under control, whether she would recommend surgery to others, or regret her own decision. Another patient in PACU, a man in his late twenties shared that he had experienced malnutrition and malabsorption since his surgical LSG 12 months prior. He mentioned that in hindsight he would never have undergone bariatric surgery and that he had been ‘happier and healthier fat’. These experiences with individuals in health care settings have caused me to pause and consider the influencing factors on a person who opts for weight loss surgery, the level of understanding regarding weight loss efficacy and amelioration of comorbidities along with the risks of complications post-surgery such as leaks or malnutrition. The complications of surgery impact lives, and I wondered whether an individual’s preparation for this life-changing surgery incorporated the necessary information allowing them to make an informed decision. I further pondered that for those who had not, if they had received information regarding potential post-surgical complications, whether they would have then made the same decision.

Throughout my nursing experiences in PACU and associated bedside conversations, it became apparent that many patients came to a decision for surgery through talking to a friend or colleague who recommended bariatric surgery from their own personal experience. This information prompted me to ponder on the influencing factors and the information accessible when deciding to have bariatric surgery, particularly the permanent, irreversible surgery such as LSG and RYGB. I looked at some of the bariatric surgeon’s websites and could understand why bariatric surgery appealed to an obese person, especially the pie graphs depicting expected weight loss in
one year, the pictures of happy healthy people, and the support available by health professionals. Bariatric surgery appeared permanent and had obvious, positive, life-changing weight loss results with the risk of complications minimalised. When further researching bariatric surgery, I felt real concern regarding the lack of valid, altruistic information available for patients making their surgical weight loss decision. I wondered whether bariatric patients would continue with their non-reversible surgical options if they knew they could regain their excess weight and co-morbidities in three to five years as per my findings in the literature.

My assumptions and questions are resultant of first-hand observation of the surgical complications experienced by some, and the personal communication and interaction with bariatric patients in PACU, along with my own literature research in preparation for my thesis. It seemed to me that there were real problems with the lack of valid information available on the efficacy of bariatric surgery in the long term and the health problems that can be experienced because of surgery. These assumptions are called anticipated themes, as they are influenced by and have roots in the researcher’s experiences or in the discipline in which they work (Holloway, 2017). It is proposed by Braun & Clarke (2013) that rather than viewed as a weakness, subjectivity by the researcher should be seen as a strength. However, it is imperative when considering and coding data that my experience, personal views and observations are not imposed on the data collated. The method used to mitigate this effect is known as bracketing and has been mentioned previously; this process assists in removing the deleterious effects of preconceptions that may taint the research process. As a researcher, acknowledging pre-study observations and perceptions is integral to ensuring rigour and quality of the research decision trail and interpretation of data that is consistent and transparent (Biggerstaff & Thompson, 2008; Braun & Clarke, 2006; Gale et al., 2013).
Trustworthiness

Qualitative research in health-related studies captures experiential phenomena that are limited by conventional science (Thorne et al., 2004). One author proposes that qualitative studies are ‘especially amenable to obtaining straight and largely unadorned answers to questions’ (Sandelowski, p. 337, 2000), which are relevant to practitioners and those formulating policy. This statement is supported by Thorne (2004), who formulates that a failure of science can be to miss or misunderstand health-related concepts as experienced by an individual and that these human experiences are hard to quantify (Thorne et al., 2004). Noble & Smith (2015) insists that if findings of qualitative research are to be utilised in practice and delivery of care, then the evaluation of the quality of the research is essential (Noble & Smith, 2015). The terms trustworthiness and authenticity are largely associated with qualitative studies, rather than those of validity and reliability, which are applied in quantitative research (Holloway, 2017; Lincoln & Guba, 1985). The contention in regards to the use of terminology within qualitative research and how to explain the process of research in a credible manner remains an issue (Maxwell, 2012; Sparkes & Smith, 2013). Concepts this research study will employ in addressing trustworthiness are those suggested by Lincoln and Guba (1985); these terminologies replace Validity with ‘Truth Value’, Reliability with ‘Consistency and Neutrality’, and the term Generalisability with ‘Applicability’ (Lincoln & Guba, 1985; Noble & Smith, 2015).
Truth value

It is realised that there are multiple realities and that the researcher may have a bias due to personal experience and viewpoints on the subject matter researched (Noble & Smith, 2015). The assumptions and biases of the researcher have been discussed and outlined as firsthand experiences, which can influence the understanding and interpretation of the content presented by participants. Lincoln and Guba (1985) propose that truth is reflected in the clear and accurate responses of participants within the study and a description of the context as to how the inquiry was presented (Lincoln & Guba, 1985; Noble & Smith, 2015). Consequently, the responses of some of the participants are incorporated and reflected verbatim within the Findings chapter of this thesis. The use of including direct quotes from the participants is valuable in providing a clear and accurate representation of the experiences of obesity and the decision to have bariatric surgery (Noble & Smith, 2015). In a broad context the term ‘truth’ within a qualitative study, refers to the integrity of the methods incorporated and that the findings are as accurate a reflection of data as possible (Golafshani, 2003; Noble & Smith, 2015).

Noble & Smith (2015) purports that when qualitative research is undertaken it is appropriate for other researchers and health professionals in that field of study to be able to make a judgement about the ‘soundness’ of the study. This research study states clearly the personal experiences and viewpoints of the researcher and the implementation of a consistent methodological approach (Holloway, 2017; Sandelowski, 2010).
**Consistency & neutrality**

A transparent audit trail is of major importance in qualitative research so that other researchers can follow the decisions of the researcher (Holloway, 2017). Consistency relates to the strategic method in which the study has been conducted from participant sampling to the collection of data, analysis and findings. These elements of the research study must be clear and concise and are referred to as the ‘decision trail’ that enables a study, when replicated, to arrive at a similar or comparable finding (Lincoln & Guba, 1985; Noble & Smith, 2015). The application and appropriateness of the methods incorporated and integrity of the final conclusion are additionally to be considered (Noble & Smith, 2015). This clear trail from the initial outline of the research process through to the development of methods and reporting of findings give reliability or ‘consistency’ to the study (Holloway, 2017; Noble & Smith, 2015).

The strategy of obtaining valid and accurate information was to listen to the participant's story and allow their voices to speak (Corbin & Morse, 2003). The expertise of the thesis supervisors throughout the research process assisted in ensuring that information was accounted for and reflective of the participant's experiences. Emerging themes as they evolved were discussed with supervisors during which time the researcher's assumptions were challenged, reflected upon, redirected if required and then consensus reached (Gale et al., 2013).

Neutrality understands that there is some engagement between the researcher and the participants that link their position and findings (Holloway, 2017). Suggested by Sandelowski (2010), and supported by Thorne et.al., (2004) is the notion that data derived from a study is voiceless until the researcher interprets the data cites Haraway (1991) ‘There is no such thing as a view from nowhere; having or taking a view means
standing somewhere’ (Sandelowski, p. 80, 2010). Therefore the researcher and supervisors place utmost importance on ensuring the work’s findings are a representation of the experiences and ideas of participants rather than the characteristics and penchants of the researcher (Shenton, 2004; Thorne et al., 2004).

**Applicability**

Research is required to be applicable (Noble & Smith, 2015). However, it is suggested by Holloway (2017) that research can never be wholly replicable as the researcher is considered the research instrument in qualitative inquiry. The findings, however, can be applied for those in a similar context and group of people (Noble & Smith, 2015). Although participants contribute a range of experiences there are common themes and patterns that emerge from these experiences; it is these themes that have been interpreted and are represented, allowing the reader to identify with the participant and feel as if they have experienced the same interview as the researcher. To achieve this the study must be well explained, detailed and allow no room for misinterpretation, but rather the understanding that comes from a clear, logical trail of information (Shenton, 2004).

**Ethical considerations**

Acting within a code of ethics protects the rights of the research participants with whom the researcher has either direct contact or the access to personal information that could identify and even harm participants. The researcher has a responsibility to ensure the personal safety and well-being of participants involved in the study and to present the findings from data given and to do justice to the research (Corbin & Morse, 2003). Many participants agree to be part of research studies so their story can help others and
contribute to changes in current knowledge (Corbin & Morse, 2003). This reason for participation was expressed by a number of individuals participating in this study.

The researcher was guided by the principles of autonomy (an individual’s rights), justice and beneficence (doing good) (Orb, Eisenhauer, & Wynaden, 2001). The researcher made application for ethics approval from the Murdoch University Human Research and Ethics Committee in March 2017 (2017/022) prior to the recruitment of participants. The recruited participants were neither coerced or unduly influenced and followed a link online to a participant information page (Survey Monkey) where their contact details could be recorded if they wished to participate and their consent gained. The participant information page (Appendix B) outlined the nature and purpose of this study, participation details (e.g. the type of questions to be asked, recording of the interviews, and approximate length of interviews), possible risks with participation (anxiety and discomfort) and the process for ensuring confidentiality and privacy and voluntary participation and withdrawal (the participant information form stated that participants could withdraw from survey at any time). To further ensure anonymity participants chose pseudonyms during the data collection process and confidentiality was maintained at all times. The initial recordings have been deleted and data stored in the form of transcribed interviews and analyses that have been aggregated and summarised in the completed thesis. This data is stored using the participant's pseudonyms as required by the National Health and Medical Research Council (NHMRC) regulations, this data will be stored for a minimum of five years and then be destroyed (NHMRC, 2007).
Conclusion

This chapter explored the research design and methodology used in this study as it investigated the experiences and decision-making processes of patients undergoing bariatric surgery. A description of the Health Belief Model was provided, which was adopted as the conceptual framework for guiding the interview questions and providing a lens through which thematic analysis occurred. The chapter further described the participant sample, setting, and the types of data collected from the participants in addition to the researcher’s personal assumptions. Finally, the concept of trustworthiness along with the ethical considerations in conducting the research were reviewed.
CHAPTER FOUR

FINDINGS

Introduction

This study explored the obese person’s experience of weight gain, the factors influencing their decisions to undergo surgery, and the experiences as lived by the participant during this process, that for many included decades of obesity. Gaining an understanding of the information available to an individual when making a decision to have bariatric surgery was core to the aims of this research; determining how well prepared they were, and the information and supplementary resources they accessed, inclusive of health professionals and ad-hoc influences.

When interviewed, the participants who were recruited from a social media site, revealed their stories of decision-making for weight loss surgery and the related experience concerning the process. This chapter presents findings from eight participants who disclosed their personal, lived journey to obesity, bariatric surgery and the resultant changes experienced.

Demographic data

Setting

Obesity is a deep-seated concern in the health industry in relation to the added effects of co-morbidities such as diabetes and cardiovascular disease. These consequential disorders add to the burgeoning costs of health care and diminish an individual’s quality of life. As such, apart from a variety of weight loss products and programs available, there has being a surge in the obese population seeking surgical
alternatives. The number of surgical possibilities performed have multiplied within ten years and have done an ‘about face’ from a removable restrictive measure such as the Laparoscopic Gastric Band (LGB) to that of a permanent non-reversible procedure such as the Laparoscopic Sleeve Gastrectomy (LSG) or the non-reversible Roux en-Y Gastric Bypass (RYGB). Consequently, it is important to understand the influencing factors of why and how the obese make the decision to undergo bariatric surgery rather than changing lifestyle factors; particularly as this procedure is irreversible.

Participants in this study included those over 18 years who spoke English and had undergone either LSG, LGB or RYGB. Saturation of data was met with the eight participant interviews (Guest, Bunce, & Johnson, 2006; Kuzel, 1992; Morse, Barrett, Mayan, Olson, & Spiers, 2008) and collected data was deemed manageable within the time constraints of the research degree being undertaken (Smith, 2015). The participants (n=8) were recruited from an initial sample of 14 voluntary participants, the remaining six participants not continuing to progress further within the survey other than complete their contact details.

Participants, who completed the individual interviews (n=8), lived in Australia, had bariatric surgery in Australia, and spoke English. Females (n=7) were the dominant source of information with only one male participant. Age ranged from 28 years to 58 years of age (M=42). Six of the participants were married and the others were either divorced (n=1) or single (n=1). Educational attainment varied, with four being Tertiary qualified (one of these a PhD) and of the remaining participants one was studying a degree, and two had either a Year 10 schooling (n=2) or a Technical and Further Education (TAFE) diploma (n=1). Five of the participants worked, whilst one was a student (n=1), a stay at home mum (n=1) and the other (n=1) had not returned to work due to complications ten months earlier following her bariatric surgery. Five of the
participants struggled with weight loss as a teen from the ages of 12-15 years, whilst the others (n=3 women) indicated that their weight problems began post-delivery of their children.

Five of the participant’s BMI was greater than 32 and the remainder (n=3) had BMI’s greater than 50. The surgical procedure undertaken varied amongst three surgical types with the LSG being the most common (n=5) followed by the RYGB (n=2) and the LGB (n=1). The health concerns experienced amongst the participants in descending order were muscular skeletal joint issues (n=4), hypertension (n=4), shortness of breath (n=2), depression (n=2), gastric reflux (n=2), asthma (n=2), high cholesterol (n=2) and diabetes (n=1), with one participant diagnosed with Hashimoto disease. Seven participants completed genograms, with one participant unable to provide the required information due to being adopted and not knowing relevant family history. The genograms were useful in identifying familial health issues such as diabetes (n=5), obesity (n=3) and hypertension (n=2).

**Emergent themes**

Five themes and seven sub-themes emerged from analysis of the qualitative data and are presented in Table 2.
Table 2

*Themes and sub-themes developed from analysis of qualitative data*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-themes</th>
</tr>
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<tbody>
<tr>
<td>1. Standing outside the circle.</td>
<td>Growing up obese and feeling judged and talked about by others.</td>
</tr>
<tr>
<td></td>
<td>Finding acceptance amongst ‘like’ family and friends.</td>
</tr>
<tr>
<td>2. Finding obesity all-consuming.</td>
<td>Food a way of life.</td>
</tr>
<tr>
<td></td>
<td>Obsessed with the struggle to lose weight.</td>
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<tr>
<td></td>
<td>Feeling defeated by failure and experiencing self-loathing.</td>
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<td></td>
<td>Needing to ‘be there’ for loved ones.</td>
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<tr>
<td>4. Travelling the road to surgery.</td>
<td>Inspired by others through their surgical weight loss success stories.</td>
</tr>
<tr>
<td></td>
<td>Decision making influenced through medical advice and social media.</td>
</tr>
<tr>
<td>5. The good, the bad and the unsightly.</td>
<td>Anxiety related to financial costs of surgery.</td>
</tr>
<tr>
<td></td>
<td>Feeling empowered and in control.</td>
</tr>
<tr>
<td></td>
<td>Changing habits, changing form.</td>
</tr>
</tbody>
</table>
**Theme one: Standing outside the circle**

Amongst participants, a common theme was that they were viewed differently from a ‘skinny’ person. Some participants reported commonly hearing words and phrases describing an obese person, such as, ‘lacking in intelligence’, ‘lazy’ and ‘pig’. This terminology had either been directly said to them, or they had heard others describe obese people using these terms. This public perception of how the obese are viewed and referenced can affect self-esteem and self-image as made evident in the participant’s individual stories. This first theme emerged from the sub-themes ‘growing up obese and feeling judged and talked about by others’ and ‘finding acceptance amongst ‘like’ family and friends.

**Sub-theme: Growing up obese; feeling judged and talked about by others**

Many of the participant’s weight issues began in their early teens (n=5). As teenagers, they reported feeling ‘different’ from their friends and peers at a development stage where self-image and feeling accepted are vital to a healthy emotional well-being. Rather, these participants reported feeling excluded, judged and talked about:

*Body image has been an issue since teenage years where I always felt that I was bigger.* (Aniseed)

*I don’t remember a lot of it, I block out my teenage years ... I was always the fattest one out of all my friends, I had a rough time with self-esteem.* (Black)

*Obesity is so stigmatised and it’s horrid ... (mum) thinks people look at obese people as less intelligent.* (Atlantis)
For some of these participants, coping strategies were implemented where they sought to be amongst friends of comparable size.

**Sub-theme: Finding acceptance amongst ‘like’ family and friends**

Many of the participants had school or university friends who were similar in size. This made them appear less conspicuous and allowed them to feel as if they didn’t stand out as much as they would have in a group of ‘skinny’ friends:

*I wasn’t like the fat friend among skinny friends or anything. I was just sort of normal like all my friends were sort of all big, so it was ok.* (Cocoa86)

*… two friends the same size as me (at university) and that really helped my self-esteem, because I had people the same size and we were best friends.* (Black)

Surrounded by friends who were obese, these participants didn’t feel as conspicuous at school or university and felt they blended into their circle of friends. This same situation applied to families where either the partner, siblings or relatives were overweight or obese. There was no judgement within the family circle, just more people who looked and ate the same and who were related. However, life changes and when these participants evolved from student status to employment status, their social network also changed. The changes may have involved relocation to another State and living away from friends and family who had always been the buffer and safety net in social interactions; new environments and social groups were no longer comfortable.

The increasing weight and feeling of being different from others prompted participants to take charge and source a weight loss strategy, a course that all participants reported as fruitless in the long term.
Theme two: Finding obesity all-consuming

All eight participants struggled to maintain weight loss. Many tried multiple diets such as Weight Watchers, The Soup Diet, and the Tony Ferguson diet or whatever diet was of significance at the time. Some participants had success in weight loss with these diets – for a time. Others would try exercise and ‘work out’ and be able to lose some weight, and a few used a combination of both dieting and exercise and would achieve some weight loss results. Central to all the participants was the problem of maintenance of the lost weight. Listening to personal reflections, it seemed that any weight loss that occurred was soon regained, and with that gain, an increase in actual total weight. Weight loss and weight regain became cyclic as did the emotional roller coaster of feeling ‘elated’ and then ‘defeated’ when the weight returned. Weight loss became all-consuming to the participants, impacting all areas of life. The resulting sub-themes ‘food a way of life’, ‘obsessed with the struggle to lose weight’ and ‘feeling defeated by failure and experiencing self-loathing’ combined to form the theme ‘finding obesity all-consuming’.

Sub-theme: Food a way of life

Reasons for over-eating or addictive eating amongst participants seemed to be related to patterns of eating, situational eating and ‘self-control’; only one of the participants referred to themselves as having an ‘addictive’ eating pattern.

_I mean I loved eating, love food ... and all my group of friends, we all liked eating._

... _I was past the point ... I was addicted to food._ (Coco86)
So, yeah, I discussed it with my personal trainer last year. We didn’t think I’d need it (bariatric surgery), but it was a backup. Like, that’s what she said, ‘but you work so hard’ (working out) but she would not see what I would do at night. I would go home, and I would sabotage all those efforts. I would eat my dinner, then I would eat the kid’s leftovers than I would eat a box of ice cream. Like, not one, a whole box of ice cream and wreck everything that I had done. (Aniseed)

Family and those that one spends a majority of their time with were also noted to influence eating patterns. Some participants reporting their family as ‘big eaters’ and where ‘food would always be in abundance’. One participant who had lived away from home returned to close proximity to the parents and siblings and rapidly gained approximately 40 kilograms over a short period:

… my family are probably bad, … they were a bad influence as they were all big eaters and (this) didn’t help a lot. (CaddyDaddy)

These poor eating patterns and the lack of ‘self-control’ that for many consumed decades of their lives, led many participants to feel like they were constantly trying to lose weight.

Sub-theme: Obsessed with the struggle to lose weight

Attempted weight loss for participants was reported as a vicious cycle of fad diets, pills and powder drinks. Many recounted how they would achieve small wins with genuine weight loss occurring. This loss was not sustained. Weight would soon steal back the gains, with the scales showing ‘triple digits’, or photographs of a ‘girl’s weekend away’ clearly capturing an increasingly larger figure:
I’d been struggling ... I’d done, if there was a weight loss thing on the market, I’d pretty much tried it... Couldn’t seem to lose weight the most was five – seven kilograms ... and if I got discouraged, it just all went on, plus more. (Kelly)

I’ve tried everything you can imagine. I’ve done that many programs. Lite ‘n’ Easy, Weight Watchers, um ... yeah, so my mum opened up my medicine cabinet one day and realised how many different tablets I had ... appetite suppressants, metabolism boosting, yeah. Mum cried. (Aniseed)

This constant struggle with ever-increasing weight led many to feel ‘defeated’ by failure, which was then followed by ‘self-loathing’.

Sub-theme: Feeling defeated by failure and experiencing self-loathing

Many participants expressed how ‘defeated’ they felt when they could not keep the weight off. Feelings of failure concerning losing weight impacted all aspects of their lives; their relationships, their workplace and their health:

The first thing I ever thought when people met me would be ‘Oh my God, look at her, she’s so fat’ and so it consumes my every waking moment. (Atlantis)

Every night I’d sabotage myself and I’d go to bed thinking, ‘Why did I just do that? I, -I need to stop this. And I couldn’t. Mentally I could not stop it. As much as I knew it was wrong. I would sabotage myself every day ... (Aniseed)

Participants were concerned about what others would think and say about them, however, they had their own negative dialogue happening telling them they were a ‘loser’ or a ‘pig’;
I honestly felt like I’m just gonna get bigger and bigger like I never would lose weight, and just go back to my normal, like my big size. I would lose weight and then go bigger, bigger and then I’d lose weight and I’d go bigger, bigger, and bigger, and you know what? Every time I like went on a diet and failed - I just felt like an idiot, like a loser, that I couldn’t stick to anything, like a pig. (Hannah)

As I listened to the participants share their personal stories and their struggle to lose weight, I sensed a feeling of hopelessness and despair reflected in their voices as they described their experiences. When they spoke of trying every diet, their voice had the tone of a person who had exhausted all means and was resigned to the fact that there was nothing to be done; to them, they had tried everything and failed. In retrospect, some participants expressed they wished they had sought surgery years before, rather than waiting, as they had been ‘struggling to live life’ for so long.

**Theme three: Struggling to live life**

This third theme focuses on health issues and a person’s quality of life. The sub-themes ‘deteriorating health and a bleak future’ and ‘needing to be there for ‘loved ones’ were emergent themes that were consistent amongst all of the participants.

**Sub-theme: Deteriorating health and a bleak future**

In this sub-theme, the health status of the obese individual deteriorated as they became larger and older. The demographic data shows participants experienced medical conditions such as hypertension, muscular skeletal joint issues, shortness of breath, lethargy and diabetes. In the phone interviews ‘age’ was also considered a
contributing factor to deteriorating health and a cue for many participant’s calls to action:

*I’m 32, I’m not getting younger … I’m just getting bigger each year … my bones are deteriorating because of the extra weight … it’s starting to get out of control, my blood pressure’s been increasing each year as well.* (Aniseed)

*When I hit my 50’s I really started to feel some actual medical complications. I started to struggle to get up a flight of stairs. I was worried if I had to negotiate a hill, those sorts of things. I’d get short of breath really easy on exertion and I had to go onto blood pressure medication and medication for reflux, so it was really starting to affect my life in a physical way.* (Atlantis)

Health issues became a stimulus for action as they realised that if their health deteriorated further, they may not ‘be around’ for their families.

**Sub-theme: Needing to ‘be there’ for loved ones**

Most participants identified they wanted a healthy future for themselves and saw this as key to enjoying life with their family. They understood that deteriorating health would impact their ability to enjoy life, whether it be through immobility or worsening associated medical conditions:

*I look at my Aunties on my Dad’s side, and I could see where my future was heading.*

*I didn’t want to end up like that.* (Aniseed)

*So, it became … a life or death decision and I had turned 56 and I was thinking how much longer would I like to live for.* (Atlantis)
Others expressed how they were struggling to ‘live life’ and they wanted a ‘real’ solution to weight loss to ensure the quality of their lives:

*I’ve got to, I’ve got to take a concerted effort because I-I wanted to be able to be a mum (to son) for a long time. Not just a short time.* (Kelly)

*Too much for me to do, I want to be around. The turning point was buying the bus and turning it into a motorhome ... I’ve got more living to do ... I’m 52, how am I going to get to 62, 70 and enjoy the time with my wife?* (CaddyDaddy)

Struggling to ‘live life’ eventually lead participants to look for a surgical option, which they believed would ensure sustained weight loss.

**Theme four: Travelling the road to surgery**

The failure, self-loathing, deteriorating health and a bleak future prompted many participants to search for a permanent solution. Their search was powerfully influenced by the triumphs of others who had undergone weight loss surgery. Feeling ‘inspired by others through their surgical weight loss experience’ and having their ‘decision-making influenced through medical advice and social media,’ formed the basis for the development of the theme ‘Travelling the road to surgery’.

**Sub-theme: Inspired by others through their surgical weight loss success stories**

Weight loss surgery was expressed as being the ‘best-kept secret’ by those who had bariatric surgery performed. A majority of participants had come into contact with
individuals who had successfully undergone bariatric surgery; they knew of either a
work colleague or a friend, or family member who had undergone surgery. These
individuals became resource people for the participants when they sought information
about bariatric surgery. Often these individuals did not voluntarily come forward with
information about their bariatric surgery but were only prompted to share their own
surgical experiences if asked about it by the participant or the participant shared about
their own failed weight loss or dieting experience:

   *I met a 19-year-old girl and she had a really big body and stuff and she could hardly
   eat (she said) ‘oh, pretty much everybody in my family gets it done when they turn
   18’ ... so that stuck in my mind. (Hannah)*

   *Had a neighbour who had a sleeve done ... asked her about it. (Black)*

Many of the participants post-surgery felt that they would only divulge information on
their bariatric surgery if they were comfortable with a person or if they perceived they
were not being judged. This is because all participants have heard or experienced the
public misconception of weight loss surgery as the ‘easy way out’.

   *I was worried, I was worried about other people judging me. Like, you know, oh,
   you know, you could go on a diet, get a personal trainer, go to the gym. (Coco86)*

Apart from personal recommendations, the participants in this study sought
information on bariatric surgery from the internet, online forums and other media.
Following this they then presented to their General Practitioner (GP) and sought either
to gain their opinion or to request a referral to a bariatric surgeon.
Sub-theme: Decision making influenced through medical and social media

Of the participants interviewed, most had made the decision that they wanted bariatric surgery prior to visiting their GP. The GP then wrote the referral letter to the bariatric surgeon and in some instances, but not all, gave their opinion on weight loss surgery to the participant. A number of participants already had the name of a bariatric surgeon they wanted to perform the surgery; these had been given to them by friends or colleagues, or they had searched and obtained information from online sites and social forums. Many of the participants, apart from having decided themselves to opt for surgery, had already formed an idea of the surgery that best suited them prior to consultation with the bariatric surgeon, a specialist in this surgical area. Only one participant did not search social media or online information, choosing to research bariatric surgery through journals and available academic literature instead. Interestingly, only one of the eight participants’ GPs had initiated the conversation about the possibility of bariatric surgery. This is despite many of the participant’s BMI indicating morbid obesity and associated comorbidities along with family histories of obesity, cardiovascular disease and diabetes:

I went to my GP and talked about it (surgical weight loss) and given my family history, he was supportive. (Kelly)

No, well I’ve discussed weight loss with doctors before, and it was like … are you eating properly? Exercising properly? It has never been, ‘Have you considered weight loss surgery?’ It was me saying it to him that, you know, I want to go down that avenue. And as soon as I said it – I had all these things in my mind of how I
was going to fight for his approval. He agreed straight away. Why didn’t you suggest this last year? Like ... (showed exasperation) (Aniseed)

Participants felt that the most supportive and helpful health professionals were the bariatric surgeons, nutritionists and psychologists. However, not all had positive experiences with their surgeon, particularly when postoperative complications were experienced; two of the participants indicated they would not recommend their surgeon. Dietitians who were knowledgeable about bariatric procedures were reported to have helpful tips and strategies for dealing with reduced portion sizes and preventing overeating, but many participants only had one visit preoperatively with the dietician and two participants had none at all. The use of a psychologist was also found to be useful to a few participants, and the use of their skills and services were sought prior surgery and extended into months post-surgery. Those who regularly consulted with a psychologist and nutritionist appeared able to relate a better weight loss experience as they coped with their changing eating patterns and strategies. They were able to embrace their changing form with congruence to what they saw reflected in the mirror. Some participants reported struggling with what they saw as their shape and what their brain told them.

Social media, such as online forums, were identified as a source of information for many participants both pre- and postoperatively. The ‘like-minded’ people participants found on the forums had all shared a common experience – that of weight loss surgery:

Yeah, I would spend – I would spend hours searching that stuff. Reading people’s experiences ... and how they felt, like from before their surgery and after. A huge
help having those online forums to go to ... reading good stories, and also the bad ones ... that was a huge help. Huge help. (Coco86)

I went public with my journey and put it on Facebook, a lot of people don’t do that. A lot of people are called ‘secret sleevers.’ (Atlantis)

Participants generally found social media forums to be the places where the most helpful information could be sourced. The stories and helpful hints located within the forums were reported by participants as being ‘believable’ as those on the forum were seen as ‘not trying to sell a product.’ The information the participants thought were helpful ranged from pre-operative tips whilst on Optifast (the nutritionally complete, low-calorie, weight loss program used preoperatively to shrink liver size) to expected costs associated with the procedure, how to deal with discomfort, food tricks and tips, and being able to track weekly weight loss by uploading images to bariatric forums of which they were a member.

Theme five: The good, the bad and the unsightly

All participants in the study considered bariatric surgery ‘the best thing’ they had implemented to lose weight, even though there were challenges and at times unforeseen consequences that occurred. This final theme ‘the good, the bad and the unsightly’, encompasses three sub-themes ‘anxiety related to financial costs of surgery’ ‘feeling empowered and in control’ and ‘changing habits, changing form.’
Sub-theme: Anxiety related to financial costs of surgery

Participants reported various routes to accessing funding for bariatric surgery. The first method was being insured by a private health fund. Funding for bariatric surgery is an issue for those not covered by a private health fund as it costs between $AU16 000 to $18 000 without Medicare rebates. However, despite private health cover, many of the participants, were required to pay ‘out of pocket’ expenses that ranged from $AU6 000 to $8 000. This sum fluctuated depending on allied health services offered by the surgeon. Surgeons who provided access to psychologists, nutritionists and exercise coaches incurred the maximum amount of ‘out of pocket’ expenses:

*I had to bring up six thousand dollars, that was the out of pocket expenses.*

(Aniseed)

*Because for surgery on its own or their part of it on top of what they could claim from Medicare were seven and a half thousand, that I had to pay sort of when I began the process.* (Red)

The second method to finance bariatric surgery as reported by one of the participants was to access superannuation funds and one of the participants used this avenue to pay for surgery:

*I got access to my superannuation fund.* (Coco86)

The third way to fund bariatric surgery is through private means such as securing a personal loan to cover the cost of surgery or having familial assistance to finance the surgery. Private finance in this research study had been granted by family either by financing the out of pocket expenses, or the payment of health fund fees for the ‘one
year’ qualifying period. The fourth tactic was to join a health fund, wait the qualifying period of one year and then proceed to surgery. Those participants (n=2) who used this method opted out of the fund immediately post-surgery:

> I’ve got to get my private health insurance into being, so I had 12 months to chew over the decision. Mum was prepared to plug the financial gap and pay the upfront fees. Surgery is out of the reach of so many people. (Atlantis)

> We couldn’t really afford health insurance and that’s the only way I could do it. 12 months before that, I had seen something on TV ... pay it back out of your Super ... it was like thirty odd thousand dollars ... I might as well stop doing life and curl up and die a big blob and not worry about it. It’s astronomical, might have to sell the kids lungs just to get my surgery. (Caddydaddy)

The final way to fund bariatric surgery is to access the public health system. However, the participants who would have liked to use this option described it as being a ‘two-year wait’ and were anxious to begin their surgical weight loss journey. No participant in this study accessed the public health system, only four participants initially had adequate private health insurance to cover surgery (exclusive of out of pocket expenses). The financial cost appeared to be a major consideration for participants and caused financial anxiety, and yet the participants (n=8) were able to strategize how best to access and fund the surgery.

The financial cost of bariatric surgery for the study’s participants was reported as being ‘stressful’ and even more so when there were either complications post-surgery or a requirement for readmission to hospital post procedure. One participant spent three and a half weeks ventilated in the Intensive Care Unit (ICU) with complications post-bariatric surgery, had to learn to walk again and required assistance with activities of
daily living. At the time of the interview, 10 months post procedure, this participant had not yet been able to return to work:

\[
I \text{ mean, the fee for being in intensive care was near to } \$100\ 000 \text{ um, private health fund covered. (Red)}
\]

Post-procedural complications were also reported by another two participants. One person was admitted to ICU post-surgery for monitoring of a raised blood pressure and another readmitted to the hospital for further investigations due to severe abdominal pain.

Negative comments about weight loss surgery and the inference that participants had taken the ‘easy way out’ increased anxiety and are reflected by the participants as thoughtless, untrue, comments which caused those who have undergone surgery to become ‘secretive’ about their surgery. For the participants in this study, these were some of their comments in response:

\[
This \text{ is } 100\% \text{, not the easy way out. It’s been a really tough road. (Black)}
\]

\[
And \text{ the other thing too is that people think that weight loss surgery is an easy option. Holy Cow - easy? If this is easy I don’t want to see hard. Because this has been the most difficult two months of my life, just so difficult. I’ll floor anybody that says that to me. (Atlantis)}
\]

Others felt they need to justify what having their surgery has done for them:

I’ve heard people say to others ‘You’re going the cheats way.’ I don’t know how they work that out? but ... It’s definitely not the cheats way, I mean how many years, how many decades have I been struggling? (CaddyDaddy)
Participants experienced anxiety in regard to being able to financially access funds for their bariatric surgery and once completed, apprehensive about who they could divulge their surgical weight loss experiences with. A definite change was noted by the researcher emphasised by the positive tone of voice and the descriptive language used, as participants relived their experiences post-bariatric surgery.

Sub-theme: Feeling empowered and in control

A transformed self-image and self-esteem were evident when participants described themselves after surgery:

Everything has changed, my whole life ... I don’t innately hate myself anymore.

Nothing tastes as good as skinny feels. (Black)

I enjoy getting out and walking now and exercising. I would never have gone to the gym at 140 kilograms surrounded by people who are fit and healthy because I’d end up feeling crappy about it. (Coco86)

It’s the best thing I have ever done, I would not change it for anything. It’s made me think and feel like a fit person. (Black)

Positive feedback from their supporters added to the participant's perceived sense of achieving their post-surgery weight loss goals. One participant reported their GP saying:

When I saw my GP after surgery she said ‘Wow, congratulations, I’m so proud of you, you have saved your life’. (Atlantis)
The comparative changes in self-perception from prior surgery to that of post-surgery appear to have been revolutionary for participants. Individual’s reported feeling like they blended in with society and ‘belonged’ after just a few weeks both of which were perceived to be absent prior surgery. Physical activity was now possible, and interviewees felt they could now accomplish previously unthinkable activities such as ‘going to the gym’ and ‘walking for enjoyment’.

Sub-theme: Changing habits, changing form

Decades of long-lived poor eating patterns and habits were replaced with new foods and the adoption of new eating patterns, which were initially foreign and not without challenges. Overeating post-bariatric surgery causes ‘vomiting’, ‘dumping’ and the feeling like you’ve been ‘punched in the face’ explained some participants. Gaining control of their eating was a new experience, along with being able to achieve sustained weight loss:

For me, it’s just a tool ... I can’t undo everything I’ve done all day ... I can’t undo all my hard work. (Aniseed)

Those who were mature in age commented that they ‘waited’ or ‘took too long’ to have their bariatric surgery, whilst another younger participant commented that to wait forever and stay obese is a ‘waste of their younger years’:

I sometimes think to myself, ‘God, why didn’t I do this years ago?’ (Atlantis)

‘... people get it done when they’re really old ... and they’ve wasted their younger years being like, morbidly obese. (Hannah)
Changing body shape and the decreasing digits on scales and measuring tapes, are exciting milestones for participants who’ve had weight loss surgery. Tracking these changes through the use of photographs of ‘before’ the surgery and then ‘weekly’ allowed the person to visualise the weight loss and the resultant changes in body shape; this method was recommended by some individuals as the best tool for ‘tracking weight loss’. The shedding of body fat, though rewarding, was reported to leave ‘dimplly’ or ‘saggy’ skin, with a number of the participants experiencing this issue, with major areas of concern being the arms, neck and abdomen. Further surgery by a cosmetic surgeon can rectify this issue, though there are general surgeons who will perform an abdominoplasty as part of their initial fee within twelve months post gastric sleeve though this does not rectify all areas of excess. It appears in this study that the younger the participant, the greater the acceptance and desire for body sculpting. The older participants were not as concerned, though some were yet to reach their ideal weight loss figure. An ideal weight loss figure was usually nominated by the bariatric surgeon at the initial consult which then became the goal for the patient. Though some of the participants reach this weight and ‘want to lose more’, others had trouble with ‘plateauing’ at different stages in their surgical weight loss journey.

**Summary of the findings**

The eight participants who explored and relived their bariatric surgery experience, have provided comprehensive data for this study. This data, enriched with their perceptions, has highlighted the roller coaster journey to weight loss and complexities of obesity. Thematic analysis of the data revealed five themes: ‘standing outside the
The first theme ‘standing outside the circle’ was crafted by the sub-themes ‘growing up obese and feeling judged and talked about by others’ and ‘finding acceptance amongst ‘like’ family and friends.’ This theme discusses how participants with weight issues early in adolescence found it difficult to feel accepted and how isolated and judged they often felt by their peers and society. Feeling as though they stood out from the crowd, some participants sought friendships with those who were similar in size and eating habits, to alleviate undue attention and isolation at both school and university.

The second theme ‘finding obesity all-consuming’ was developed from the sub-themes ‘food a way of life’, ‘obsessed with the struggle to lose weight’ and lastly the sub-theme of ‘feeling defeated by failure and experiencing self-loathing.’ This theme describes how patterns of eating correlate to the obese participants struggle with their weight. This struggle to lose weight was a seemingly continuous cycle, of which participants were always mindful. Associated weight loss strategies, purported to be successful by the media, have all failed them. This inevitable failure and defeat combined to form feelings of ‘self-loathing’ and reinforce the ‘vicious’ cycle of elusive weight loss.

The third theme ‘struggling to live life’ reflects the two sub-themes from which it is derived from ‘deteriorating health and a bleak future’ and ‘needing to ‘be there’ for loved ones’. With increased weight and the ageing process, the health of the participants deteriorates. Many participants felt that to continue living the same way would certainly lead to an early demise, whilst others felt the joy of living was being
sucked from their lives. Participants feared missing out on activities with families and friends because of their size both in the present and in the future due to the increased likelihood of an untimely death.

The two sub-themes, ‘inspired by others through their surgical weight loss success stories’ and ‘decision-making influenced by medical advice and social media’ formed the fourth theme, ‘travelling the road to surgery.’ A majority of those interviewed had known a person who had experienced weight loss surgery. They were either a colleague, friend, neighbour or family member who told their story, with the results so visible and verifiable by the current form of the storyteller, that the participant was unable to ignore the efficacy of their testimony. Information was also gained through social media sites and forums, allowing the majority of participants to find information regarding the surgical procedure and the expected outcomes. Information was accessed online both in the lead-up to surgery and postoperatively when information or strategies were required to deal with new ways of eating. Some participants had access to nutritionists and psychologists, however, most participant’s contact with a health professional was limited.

The fifth and final theme ‘the good, the bad and the unsightly’ was a culmination of three sub-themes ‘anxiety related to financial costs of surgery’, ‘feeling empowered and in control’ and ‘changing habits, changing form.’ These sub-themes combined to evoke a mixed array of emotions. The difficulty and anxiety accessing surgery and how to cover the cost when there are limited financial resources, to the feelings of excitement of regaining control as weight begins to shed. Feeling confident about changing body form meant they now felt comfortable frequenting public places and involving themselves in activities previously unthinkable. New eating patterns were learnt and strategies
developed post-surgery, which when ignored, resulted in uncomfortable consequences. These consequences included, vomiting, feelings of fullness that had to be physically ‘walked off’, and one participant described the sensation of feeling like you’ve been ‘punched in the face’. The diminishing body shape can cause the loose skin to hang and may require surgery; these skin folds can become disturbing and unsightly and add to the person’s stress when trying to disguise them, or by constantly reminding them of what size they once were. All participants believed the positive aspects of bariatric surgery far outweighed any of the negative experiences and that they would all recommend surgery to others (obese individuals).
CHAPTER FIVE
DISCUSSION AND CONCLUSION

Introduction

Bariatric surgery offers more than a solution to obesity, it offers amelioration of associated disorders such as diabetes, heart disease, osteoarthritis and major depression, thereby, improving quality of life for the individual and decreasing healthcare costs. The surge in those seeking weight loss in the last decade has multiplied rapidly however, there is little known regarding experiences that influence patients in their decisions to opt for bariatric surgery.

The questions that directed this study’s focus were:

1. What are the personal experiences and socio-cultural influences that influence an individual’s decision to opt for surgery as a solution for their obesity?
2. What information is sourced by individuals contemplating weight loss surgery, and
3. How do individuals’ experiences post-surgery influence their reflections on their decision to have weight loss surgery?

Eight participants shared their personal reflections in interviews exploring their experiences leading up to and after their own weight loss surgery. The themes that emerged from analysis of the interview data provide important insights into the personal and sociocultural influences related to their decision to undergo bariatric surgery, the ‘what’ and ‘how’ of sourcing information for a surgical option, and lastly, the personal impact of their decision to undergo bariatric surgery. In this chapter, these experiences are explored within the context of existing literature and resulting recommendations are made.
1. Personal and sociocultural experiences influencing the decision to seek surgery as a weight reduction solution

1.1. Personal experiences

Examination of the demographic details in conjunction with data given by participants at interview reveals that for most participants, difficulties with increased weight began in early adolescence. This concurs with findings from other studies indicating weight gain in adolescence, is a problem most typically carried into adulthood and is an emergent concern for public health authorities and the community as our population struggles with obesity (Maffazioli, Stanford, Campoverde Reyes, et al., 2016; Oved et al., 2017; Thomas, Hyde, Karunaratne, & Herbert, 2008). Participants in the study told of how their weight gain at this time contributed to feelings of isolation, and of being treated differently. This finding supports reports that adolescent obesity results in an increase in psychological conditions such as depression and eating disorders, along with psychosocial distress triggered by bullying, isolation and discrimination (da Silva & da Costa Maia, 2012; Maffazioli, Stanford, Campoverde Reyes, et al., 2016). Additionally, self-image and self-esteem issues were experienced, with some participants in this current study reporting emotional issues continuing into adulthood, a finding also endorsed in other studies (Maffazioli, Stanford, Campoverde Reyes, et al., 2016; Thomas, Hyde, Karunaratne, Herbert, & Komesaroff, 2008). Existing research (Thomas et.al 2008) also identifies the period following childbirth as a stage of life where weight gain is experienced, which was also reported by some participants in this current study.
The ongoing cyclic nature of attempts at weight loss followed by a rebound in weight gain was described by one participant as ‘all-consuming’ and is reflective of the current study’s participants’ experiences prior to surgery, with all having sought, attempted and failed weight loss strategies such as diets, shakes and pills. This finding is similar to those of other contemporary studies that identify physical activity and dietary modification as achieving limited results (Arterburn & Courcoulas, 2014; Noria & Grancharov, 2013). Meanwhile weight loss companies continue to earn billions of dollars as, the overweight or obese are reported to repeatedly invest in their products as they strive to achieve their goal of weight loss (da Silva & da Costa Maia, 2012; Maffazioli, Stanford, Campoverde Reyes, et al., 2016). This constant battle with weight loss caused the current study’s participants to experience feelings of frustration, failure, fear and desperation as their weight spiralled out of control and their obesity negatively impacted their lives. Common physical symptoms reportedly experienced were shortness of breath, aching joints, and a perceived decreased quality of life, with participants recounting their desperation for a weight loss tool that would ‘keep weight off’.

Two reasons for seeking bariatric surgery were communicated by the participants in this current study. The first was to improve their quality of life, inclusive of their medical conditions and the associated symptoms some participants had begun to experience. Secondly, participants realised that their obesity had a time value where the duration of their life would be shortened if they did not lose weight. These reports are supported by other literature that reveals the most common reasons for individuals seeking bariatric surgery is to improve medical conditions and their quality of life (Maffazioli, Stanford, Campoverde Reyes, et al., 2016; Neil & Roberson, 2015; Roberson, Neil, Pories, & Rose, 2016; Thomas et al., 2008). The differences noted
between this current study and the literature is the current study’s participants viewed quality of life as inclusive of ameliorating medical conditions and symptoms. Increasing longevity of life was the other reason provided by participants for opting to have bariatric surgery. There was a sense of urgency conveyed by participants who expressed that the obesity-related medical conditions they suffered could or would lead to a life-threatening event and potentially an untimely death.

1.2. Self - Efficacy in decision making

Decision making is strongly influenced by a person’s self-efficacy, which is understood as the belief in our abilities to successfully accomplish a task (Bandura, 1977) and is one of the elements in the Health Belief Model (HBM), the lens through which this study is viewed. The remaining four elements ‘perceived severity’ of a disease, ‘perceived susceptibility’ to that disease and the ‘perceived benefits’ of reducing the threat along with any ‘perceived barriers’ are all elements that can singularly or in combination be stimuli to prompt the individuals to make a decision to take ‘action’. This call to action is reflected in the current study by all participants having engaged in weight loss measures such as dieting, exercise and medication prior to deciding to have surgery. It is suggested by Baronowski (2003) that once a behaviour is implemented an individual should be able to maintain that behaviour and be successful in achieving their health outcome, however, this did not appear to hold true for the obese participants in this study. When these weight loss strategies failed repeatedly over a number of years, the ‘cue to action’ became weaker with participants believing, through experience that any weight loss measure undertaken would end in failure, their self-efficacy had now diminished, they had almost given up hope.
However, bariatric surgery was identified by participants as the strategy that would assist with weight loss, weight loss that was sustainable. The ‘perceived barrier’ of failure had been removed and by taking the action of bariatric surgery the benefits of weight loss were foreseeable and obtainable.

1.3. Bariatric surgery as a weight loss measure

The increase in demand for the Laparoscopic Sleeve Gastrectomy (LSG) and Roux en -Y (RYGB) are suggested in the literature as a result of the direct improvements in surgical technique and the acceptance of bariatric surgery as a safe, effective means of weight loss (Arterburn & Courcoulas, 2014; Cox & Kashyap, 2015; Abeezar I. Sarela, 2014). This current study, though small, does reflect this trend with a majority (n=7) of participants having undergone these permanent bariatric procedures.

Whilst the number of those seeking bariatric surgery has increased, this study found that the standardised practice of preoperative health checks and assessments by allied health, such as nutritionists and psychologists, had been missing for most of the participants. The absence of allied health consultation meant for many that, the screening for poor eating patterns and the emotional and psychological motivators that drive their eating behaviours were not identified and addressed (Engstrom, 2015). When these eating patterns and motivators are identified prior to surgery it enables an individual, in conjunction with their health professional, to develop strategies and behaviour modification techniques to assist them in their post-operative recovery phase (da Silva, 2012; Engstrom, 2015). The current study also observed this was the case for two participants who were screened preoperatively, and subsequently sustained contact
regularly postoperatively with allied health professionals (dietician and psychologist), resulting in a self-reported improvement in eating strategies, weight loss and self-image.

1.4. The decision for bariatric surgery as autonomous

All but one participant in the current study sought bariatric surgery autonomously and without any recommendations from their General Practitioner (GP). This decision to engage in a surgical option, and the subsequent actions of collecting relevant information in regards to bariatric surgery inclusive of a surgeon, may determine if participants are more likely to succeed post-operatively in their weight loss and anticipated positive outcomes (Neil & Roberson, 2015; Park, 2016). Bariatric surgery is the intervention sought by participants in the study with the belief being they could then sustain weight loss. However, surgical intervention can hardly be considered ‘self-efficacy’ in the framework of HBM as it is not their own undertaking and belief in themselves that result in the successful loss of weight. A complex concept that may require addressing in future studies.

The participant’s understanding prior to surgery was that any weight loss achieved following surgery, would be maintained, particularly with the procedures Laparoscopic Sleeve Gastrectomy and the Roux en - Y as either 70% of their stomach is removed or totally bypassed. Surgical weight loss was viewed either as a tool or as a failproof method of successfully sustaining weight loss. To the participant, there would be sustainable weight loss, the health benefit that had been denied to them for years, even decades. This is concerning as the literature does not support long-term weight loss (three to five years) occurring as a result of bariatric surgery.
1.5. Sociocultural influences impacting decision making

The common view of society toward an obese person is that the individual is culpable, that they are not self-disciplined and must overeat, eat junk food and have a limited exercise program to not achieve weight loss. Condemnation by societal norms towards the obese can lead to feelings of isolation and affect self-image (Healey, 2015; Ortiz, 2016). Participants in this study already felt restricted in the places they frequented with many in the study feeling embarrassed to visit a gym, travel by plane or go clothes shopping. Demographics such as living in a rural area and possessing a lower educational level and income are considered as factors that influence the incidence of obesity (Neil & Roberson, 2015; Ortiz et al., 2016). In this study three of the eight participants had Year Ten or TAFE qualifications and two of the eight participants lived three to eight hours drive from a major city centre, thus placing them in this identified demographic contributing to obesity.

Factors such as negative attitudes and pervasive discrimination also exist toward the obese, affecting them in everyday life in their ability to gain employment and the capacity for progression in employment (da Silva & da Costa Maia, 2012; Neil & Roberson, 2015). The reality is that the Australian population is becoming more overweight and obese with predictions of a predominantly overweight and obese population by the year 2025 (Arterburn & Courcoulas, 2014). This projection raises questions by experts as to the food density (sugar/carbohydrate) that is produced and consumed in our daily food. If an entire Australian population and indeed populations globally are becoming overweight and obese, inclusive of developing countries, then as a society and a concerned public we need to understand that obesity is not just an individual problem. It is a global problem, a systemic event occurring population-wide due to the food production and consumption of the people that must be addressed to
dent the rising numbers (Cohen, 2013; Ortiz et al., 2016). This is a challenge that is faced by individuals, communities and governments and a health issue that requires immediate attention as obesity worldwide spirals out of control.

2. Information sources influencing the decision to undergo bariatric surgery

2.1. Health professional influence

Interestingly, most participants indicated that their General Practitioner (GP) was not a source of information and nor did they actively promote bariatric surgery to them as patients. This was despite most participants qualifying for surgical weight loss due to a high BMI and associated comorbidities. The recent literature identifies bariatric surgery as the normalised disease and prevention tool for obesity and is recognised as able to achieve far greater results than conventional medical treatment (Celik, 2016; Cummings, 2016; Fung et al., 2016; Ortiz et al., 2016). Yet GP’s were only consulted by the participants in this study to acquire a written referral to be able to organise a consult with the bariatric surgeon once the participant had decided on surgery.

Decisions as to the type of bariatric surgery participants wanted were also selected prior to surgical consultation. Ideally, the decision for the type of surgical weight loss procedure should be a shared decision, with the individual and the surgeon considering factors such as total excess weight, a patient’s co-morbidity profile, patient habitus, and previous interventions for weight loss and eating behaviours (Arterburn & Courcoulas, 2014; Goitein, Raziel, Szold, & Sakran, 2016; Neil & Roberson, 2015; Abeezar I Sarela, 2014). Other information identified as neglected or omitted at consult for many of the participants in this study included the total monetary cost of surgery (inclusive of out of pocket expenses) and the possible need for body sculpting post weight loss.
(Engstrom et al., 2015; McGrice & Don Paul, 2015; Abeezar I Sarela, 2014; Tabet, Flick, Tuuli, Macones, & Chang, 2015). Participants mentioning that these out of pocket expenses, for some reaching a figure of an extra $AU6000 - 8000, added further anxiety in relation to how they would be able to cover this added expense. Understanding that further surgical intervention for the removal of excess skin folds post weight loss, informs the individual that they may require this surgery and allows them to discuss this further with their surgeon and plan their finances accordingly.

2.2. Social networking and media sites

Information assisting in the decision making for the participants in this study was predominantly sourced from social forums, the internet, friends and colleagues. Participants were influenced largely by the results they had observed in friends and colleagues having undergone surgery and from the information contained on social forums. The social forums specific to bariatric surgery were identified by participants as being the most believable and helpful with information contained on these sites considered subjective, personable and of having ‘no hidden agendas’. These online forums were also utilised by all the participant's post-bariatric surgery, with participants finding helpful hints and strategies and some even tracking their weight loss journey on these forums. Interestingly, the type of forum accessed changed, as the need for information changed with two participants at the time of interview looking at forums that contain plastic surgery and body sculpting experiences and advice.
3. Impact of having surgery

The two reasons given by participants for undergoing surgery were to firstly, improve their quality of life and secondly, increase their longevity as in their current obese state they saw their futures as grim. Looking back, all participants in the current study indicated they would recommend bariatric surgery to others; although two participants stipulated they would not recommend their surgeon due to the complications they experienced. The predominant bariatric surgery chosen by participants in this study, was the LSG and RYGB as participants desired a ‘tool’ for weight loss that was considered permanent. For some, the weight loss cycle of unsustainability had been endured for years and even decades, with many participants indicating that they ‘should have done it sooner’. Several participants in the study have met their weight loss goals and are contemplating body sculpting, whilst others continue their weight loss journey. Shared challenges experienced within this group of participants was the initial post-operative phase when patients resumed eating and weren’t quite certain of what they should eat, how much they could eat and strategies to utilise when their stomachs were full, but their brain was saying ‘more’. Other areas identified as shared experiences post-surgery were the plateau phases of weight loss, where some participants would stop losing weight for a few weeks and weren’t quite sure how to progress and dealing with a changing body shape and memories from the past that may resurface.

The benefits of bariatric surgery were identified as an improved quality of life and a positive future. This finding is supported by literature indicating that as a result of bariatric surgery, apart from the amelioration of medical conditions, other factors such those involving finances, the physical and the psyche of the individual are also impacted.
3.1. The financial impact of undertaking bariatric surgery

Once the decision for surgery is made, the impact of being able to access surgery and the associated costs become problematic for many individuals. The participants in this study found the process of being able to afford the surgery an obstacle and reported this period as quite ‘stressful’ and of feeling ‘anxious’ as they established how they would be able to afford the procedure. Participants also expressed concern that bariatric surgery is not ‘available to all’ through the public system, citing accessibility issues due to waiting times of up to three years. For those not able to afford to fund their surgery privately this surgery then becomes out of reach. This research study identifies that most of the participants (n=7) used a private health fund to access surgery with one participant accessing superannuation funds. These findings suggest the private health system in Australia may be bearing the brunt of obesity treatment, and supports the literature proposing obese individuals are joining private health funds only to have the surgery (waiting a qualifying year) and then opting out immediately post-surgery (Sharman, Hensher, Wilkinson, Campbell, & Venn, 2016).

The need for public funding and policy review of the wait times and availability of bariatric surgery, was identified by participants in this study as a priority. The literature suggests that the cost to Australia of obesity and it’s comorbidities is estimated at $60 billion per year, inclusive of the economic costs of the direct health expenditure, loss of productivity and carer costs (Avsar, Ham, & Tannous, 2017; Salton, 2015). This expenditure justifies the need for a review of the funding models to ensure
efficacious surgical procedures for treating obesity, are funded equitably, thus preventing disparity in the availability of these treatments (da Silva & Maia, 2012; Debs et al., 2016; Natvik, et al., 2014).

3.2. Access to psychological support pre and post-operatively

The psychological support required by those seeking weight loss in the current study appeared to be overlooked as a vital aspect of an individual’s care both pre and post-operatively. An important factor recognised as influencing positive outcomes from bariatric surgery is the support from family, peers and health professionals (Sharman et al., 2017). Only two participants in this current study have maintained ongoing support from a dietician and psychologist. These two participants reported embracing their new eating patterns, behaviours, and strategies, along with their changing body shape, whilst the remainder related how they struggled with eating and their new self-image as a thinner person. These findings reinforce studies by Brennan (2016) and Engstrom et al., (2015) that show intense follow-up improves resultant weight loss and weight maintenance (Engstrom et al., 2015; E. Natvik et al., 2014).

The provision of information regarding the potential for excess skin folds from post-operative weight loss was an area identified as being omitted by bariatric surgeons when in consultation with participants in this current study. One participant thought the surgeon may have mentioned body sculpting at the initial consultation but could not be sure. For some authors, body sculpting is seen as inseparable from the whole process (Poulsen et al., 2016) particularly those who are older and have less elasticity in their skin, they will generally require this surgery (Poulsen et al., 2016; Throsby, 2012). For many, excess skin is evidence of former ‘fatness’, ‘failure’ and lack of ‘self-control’, the
moral failure that is stereotypically given to the obese. These skin folds remain as evidence of a previous self for some, not the person they have now become and as such can negatively affect the individual psychologically if not addressed (Throsby, 2012). In this study only two participants had reached their ideal weight after a period of 12 to 24 months, these participants were younger and concerned with their excess skin folds and indicated they would be seeking surgical sculpting. The other participants indicated they would address body sculpting once they had achieved their future weight loss goal.

3.3. Physical benefits experienced post-operatively

The physical weight loss benefits for participants in the study were reported as having energy, feeling alive, and that they could now live their lives with enjoyment. Participants mentioned activities that as a thinner person they now enjoyed. These were mentioned by some participants as attending the movies and not spilling into the chair beside them, travelling aboard aeroplanes without having to request a seatbelt extension, being able to cross their legs whilst sitting, and fitting into clothes purchased off the rack in a ‘normal’ store. Other areas of noted improvement were the ability to walk or climb a flight of stairs without experiencing shortness of breath, and medical issues that have been ameliorated such as joint pain, high blood pressure and depression. For the participant, this also meant consuming fewer prescribed medications or the complete cessation of medications. Participants reported feeling that all aspects of their lives had changed for the better and were more positive for their future.

The implications from this study’s findings have guided the researcher to consider recommendations to advance policy so that valid and reliable information is available to the individual considering bariatric surgery and that these policies are carried through
into practice within the health sector and further research continues into several key areas.

**Recommendations for policy, practice and research**

The findings of this study have outlined the challenges the bariatric individual experiences in their weight loss journey and the decision pathway leading to surgery. The following recommendations have been developed from the findings of this study and are supported by literature examining similar research.

**Recommendations for policy**

- Accessibility to the public health system for bariatric surgery was considered difficult by the participants, with long wait times of up to three years. Participants accessed private funds to enable surgery. The inaccessibility of bariatric surgery for all causes disparity and with the increasingly larger Australian population and associated co-morbidities, it would seem prudent for governments to review the funding for bariatric surgery annually (Neil & Roberson, 2015; Sharman et al., 2016).

- Public Health support is needed to endorse, fund and promote an online information site that has research-based, accurate and valid data that is inclusive of the short and long-term efficacy of bariatric surgery (Oved et al., 2017). This site should also have an associated forum where people can share their stories and a moderator who can answer any questions within the forum, or advise on any particular issue experienced, ensuring the site is an accurate reflection of the bariatric person’s experience.
• Promoting health initiatives to target early health prevention and the treatment of obesity in high risk groups, the study highlighting weight gain in adolescence and in women post childbirth (Maffazioli, Stanford, Campoverde Reyes, et al., 2016; Oved et al., 2017; Thomas, Hyde, Karunaratne, & Herbert).

**Recommendations for practice**

• Implemented within Australia's health care system, there should be standard regulations and protocols for the provision of information and support that assist individuals to make informed and shared decisions with their health care providers regarding bariatric surgery. Allied health consultations with psychologists and nutritionists should be considered to be made mandatory preoperatively and continue as part of the postoperative care, thus ensuring optimal outcomes (McGrice & Don Paul, 2015; Oved et al., 2017).

**Implications for further research**

• Future research should endeavour to continue to provide a knowledge base for addressing the determinants, prevention and management of obesity both within Australia and worldwide. The growing problem of obesity cannot be attributed to only an individual but is rather a reflection on lifestyle and the availability and consumption of high-density foods, the leisure spaces provided, and the information and advertising being disseminated by media and health authorities in relation to food.
- Research into the comparative costs of surgery versus obesity and associated co-morbidities in the public health system, thereby providing a basis for government funding.

- Further research into the best ways to support general practitioners to provide relevant information to patients who may meet the criteria for bariatric surgery.

**Limitations**

The study’s findings are limited by its retrospective nature, with participants having undergone surgery from six weeks to six years postoperatively. Whilst this provides a wide range of post-operative experiences, recall bias may be impacted by the recollection of a participant and the time elapsed since surgery. Similarly, negative experiences associated with being obese could cause painful recollections that may have led participants to avoid sharing some aspects of their stories.

The sample size was eight participants and can be considered by some as small, however, this was offset by the abundance of qualitative data representing the individual’s life experiences. The participant's rich stories provided insights into the lived life of an obese person and their decision making for bariatric surgery. The findings from this current study corresponds with other larger scale studies undertaken in Australia as well as internationally (Neil & Roberson, 2015; Sharman et al., 2017; Thomas et al., 2008).

Every effort was made to bracket any pre-conceptions or assumptions that the researcher had about this topic with regular review and guidance by my supervisors. The researcher has discussed these assumptions and my health background in the study, so readers can understand my interest and any existing pre-conceptions.
Conclusion

This research study aimed at exploring the decision making process of the obese person when contemplating bariatric surgery. The perceptions and considerations were explored using a qualitative interpretive design. This method was most suited to this research study as it was able to explore the feelings and experiences of the participants, their story of weight gain, failed weight loss, and how this influenced their decision for surgery. A group of eight participants located Australia wide, who opted for bariatric surgery, participated in a demographic survey, and individual interview. Interviews with participants were scheduled over three months and then the data manually transcribed and analysed, using thematic analysis. The themes identified by participant’s data included ‘standing outside the circle’, ‘finding obesity all consuming’, ‘struggling to live life’, ‘travelling the road to surgery’ and ‘the good, the bad, and the unsightly’. There were several characteristics and actions identified as behaviours that could be explained by HBM.

The Health Belief Model assists in understanding the cognitive motivation and reasoning of obese individuals in their quest to lose weight. In this particular study dealing with the chronic (long-term) issue of weight, the actions of the individual initiatives undertaken were reflective of the HBM, the ‘perceived susceptibility’, ‘perceived severity’ and the ‘perceived benefits’ of achieving weight loss and how this would impact their lives. These ‘perceptions’ initiated action by participants in attempts to lose and sustain their weight loss for years, even decades, and were inclusive of strategies such as repeated fad diets, shakes, pills and exercise, all seemingly with
minimal success. The experienced feelings of failure, sabotage and lack of self-control as their weight continued to spiral out of control was, for the participants, the ‘perceived barrier’ to continuing weight loss strategies. The cyclic nature of weight loss in the obese is a complex issue and one that is not readily explained by the HBM framework in its entirety. The element ‘self-efficacy’ (belief or confidence that he or she can perform a specific behaviour), which prevented participants from continuing down a futile and cyclic path of weight loss and weight gain, was demonstrated and reignited by participants in this study when they decided to have bariatric surgery. The intervention of a surgical procedure boosting the confidence in themselves and the ability to lose weight. The HBM model can be incorporated, however, there may be other models that are better suited to assist in explaining the complexities revealed in this study.

The findings from this study identify that participants sought surgery after years of lifestyle interventions that did not sustain their weight loss in the long term. Participants opted to undergo bariatric surgery as they perceived it as a ‘tool’ or as a long-lasting strategy that would improve their quality and duration of life. Most of the decisions by participants in this study to have bariatric surgery were independent of advice from a medical practitioner with most information sourced from social/online forums and friends/colleagues. The belief by participants that the information gained from these online sites were altruistic and seemingly contained enough information for them to be informed enough to determine the type of bariatric surgery required. This is, notably an area of concern and one that requires addressing. Reliable, valid and research-based information should be made available online for those considering bariatric surgery. Such an online site should also recommend individuals to consult with their surgeon to discuss their history and weight problems thus allowing the
surgeon to guide them to a surgical procedure that is suitable to them as an individual. Decision making is so much more than just a decision and this study has shown the complexity of life and emotions leading to the decision for bariatric surgery.
Appendix A

Facebook advertising: www.surveymonkey.com/r/surgicalweightloss

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Sonya Goltz  
May 18  

Hi friends and family, do you know of someone who has had bariatric surgery (either banding or a sleeve) and would be interested in participating in a research study? If so can you forward them this post and link.  
https://www.surveymonkey.com/r/surgicalweightloss
Appendix B

Decision making for weight loss surgery

We invite you to participate in a research study exploring people's experiences when making the decision to have weight loss surgery. This study is being conducted by Sonya Gelts, who is a Registered Nurse and Research Masters student at Murdoch University (School of Health Professions). This study forms part of my Research Masters Degree, supervised by Associate Professor Catherine Fetherston and Dr Martin Hopkins at Murdoch University.

Aim of the Study
The aim of this study is to gain an understanding of the information that is available to the person considering weight loss surgery and how this information is gathered and accessed.

We are also very interested to understand your personal journey of weight loss and what factors influenced your decision to have surgery. There is little information from the perspective of the individual seeking weight loss and their own experiences. It is hoped that the knowledge gained will contribute to improved health practices and guidelines.

What Does Your Participation Involve?
Participants of this study are required to be English speaking and over the age of 18 years and have undergone a surgical weight loss procedure.

If you decide to participate in this study, you will be asked to undertake the following:

- Leave your contact details at the end of this form. The researcher will contact you and ask if you have any questions regarding the survey. You will be asked to supply a code name. This is how you will be identified throughout the study so you and your information remain anonymous.
- Complete a de-identified pre-interview online survey, which will take approximately 15 minutes to complete.
- Attend a one-on-one interview discussion with the researcher at Murdoch University. This will take approximately 30 – 60 minutes of your time and refreshments will be provided.

It is possible that you may experience some level of anxiety or stress when relating your experiences. If this occurs, the interview can be stopped either temporarily or permanently.
as per your wishes. If these feelings persist after the completion of the session, arrangements will be made for you to access support from your general practitioner.

Voluntary Participation and Withdrawal from the Study

It is important that you understand that your involvement in this study is voluntary. While we would be pleased to have you participate, we respect your right to decline. If you decide to discontinue at any time you may do so without providing an explanation. If you withdraw prior to data synthesis, all information you have provided can be removed and will not be used. However, if you discontinue after data synthesis has occurred your data will form part of the study’s findings.

Privacy

Your privacy is very important to us. Your participation in this study and information collected will be treated in a confidential manner. Your name and identifying details will not be used in any publication arising out of the research. Following the study the data will be kept in a de-identified (anonymous) format, in a password protected folder on the computer of the Chief Investigator.

Benefits of the Study

It is possible that there may be no direct benefit to you from participation in this study. However, you may appreciate the opportunity to tell your story and the knowledge we gain from your participation may help others.

Possible Risks

There are no specific risks anticipated with participation in this study. However, if you find discussing your experience causes distress, we encourage you to receive support from your general practitioner or a 24/7 free counselling service, the numbers of which are on the business card given to you by the researcher at completion of the interview. You will also receive a call 48 hours post interview enquiring after your well-being, unless you request not to.

Questions

If you would like to discuss any aspect of this study please feel free to contact either myself, Sonya Golz via S.Golz@murdoch.edu.au or my supervisor, Associate Professor Catherine Fetherston on 9382 5516. Either of us would be happy to discuss any aspect of the research with you.

Once we have analysed the information from this study, the findings will be placed on the School of Health Professions website: http://www.murdoch.edu.au/School-of-Health-Professions/Research/Nursing-Research
This study has been approved by the Murdoch University Human Research Ethics Committee (Approval 2017/022). If you have any reservation or complaint about the ethical conduct of this research, and wish to talk with an independent person, you may contact Murdoch University’s Research Ethics Office (Tel. 08 9350 6677 (for overseas studies, +61 8 9350 6677) or e-mail ethics@murdoch.edu.au). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix C text and indicative questions for pre-interview on-line survey
(SurveyMonkey)

**Decision-making for weight loss surgery**

This study aims to explore people’s personal experience of the decision to have weight loss surgery and what types of information/advice you may have found helpful.

In submitting this survey, I am indicating I have received written and verbal information about the nature and scope of the study and any questions I have about the research process have been answered to my satisfaction. I agree that by completing the following questions I give my consent for the data to be analysed for research purposes. I am aware that the information submitted in the survey is confidential and to assist in this a codename previously supplied by me to the researcher is the only identifier on the survey. I know that I may change my mind, withdraw my consent, and stop participating at any time; and I acknowledge that it will not be possible to withdraw my data if I choose to stop participating after the data has been analysed and aggregated.

I understand that all information provided is treated as confidential by the researchers and will not be released to a third party unless required to do so by law.

I understand that the findings of this study may be published and that no information that can specifically identify me will be published.

**Yes, (marks box) I consent to participate (Please complete the following questions).**

**Demographic details**

1. Code name:
2. Gender:
3. Age:
4. Relationship status
5. Type of weight loss surgery:
6. Date of surgery:
7. Body Mass Index prior surgery if known:
8. Height and weight prior surgery and currently:
9. Current Medical history (condition, treatments and medications).
10. Occupation:
11. Level of education:
12. Geographical postcode:

**Pre-weight loss surgery**
13. Since what age have you struggled with weight problems?
14. What strategies have you used prior to your surgery to lose weight?
15. What motivated you to think about having weight loss surgery (Please rank according to importance with number 1 the most important and number 5 the least).
   - Family illness
   - GP advice
   - Friend/work/or relative has had weight loss surgery
   - Media reports about weight loss surgery
   - Struggled to maintain my weight loss long-term
   - Emotionally tired of being overweight
   - Medical conditions (please state these in the box provided and the treatment required).

Box where the participant can fill in details.

Another box which says ‘other’.

16. Where did you source your information from regarding surgical weight loss procedures?
(If there was more than one source please rank the importance of the sources you accessed with 1 being the most important).

   - Friend
   - Colleague
   - Family member
   - GP
   - Google
   - YouTube
   - Social media
   - Bariatric (weight loss) surgeon
   - Printed media

17. How did you decide on your weight loss surgeon?

   - Word of mouth
   - Friend
   - Colleague
   - Family
   - Google
   - Social Media
   - GP
   - Other
Have a box for ‘other’.

**Surgery and post care**

18. After your surgery did you experience any of the following?

- A collection of blood at the surgical site
- A blood clot in your legs
- Reflux
- Nutritional deficiency
- Other (please describe) Box provided for ‘other’

19. Were you able to follow up with your surgeon post-surgery?

- Yes
- No
- Other (please describe) Box provided

20. Were you able to follow up with additional support services post-surgery?

- No
- Yes
- (please describe the services you accessed) Box provided

21. Have you had body sculpting after losing your weight?

- Yes
- No
- Other (please describe) Box provided for other

22. How were the expenses for your surgery covered?

- Private health fund
- Public health
- Private funding
- Other (please describe) Box provided

23. Have any of the medical conditions you experienced pre-surgery improved or resolved now?

- Yes
- No
- Other (please describe) Box to explain other

Thank you for participating in this survey. The researcher Sonya Goltz will be contacting you in the next few days to arrange an interview time to discuss your experiences.
Appendix D

Consent Form

Decision making for bariatric surgery

1. I agree voluntarily to take part in this study.

2. I confirm that I meet the criteria for participation in this study: I am over the age of 18 years and have had weight loss surgery.

3. I have read the Information Sheet provided and been given a full explanation of the purpose of this study, the procedures involved and of what is expected of me.

4. The researcher has answered all my questions and has explained possible problems that may arise as a result of my participation in this study.

5. I understand that I will be asked to complete an on-line survey and participate in a one-to-one interview/discussion that will take approximately 30 – 60 minutes of my time.

6. I understand that my name and identity will be stored separately from the data, and these are accessible only to the investigators. All data provided by me will be analysed anonymously by using code names.

7. I understand that no identifiable data will be used in any publication arising out of this study.

8. I understand that all information provided by me is treated as confidential and will not be released by the researcher to a third party unless required to do so by law.

9. I am willing for the discussion to be audio-taped to assist the researcher with analysis of the information provided.

10. I understand I am free to withdraw from the study and stop participating at any time without needing to give any reason.

Name of participant: _______________________

Signature of Participant: ___________________ Date: ______________

I confirm that I have provided the Information Letter concerning this study to the above participant: I have explained the study and have answered all questions asked of me.

Signature of researcher: ___________________ Date: ______________
Appendix F
Individual phone interviews

Participant has already completed an online survey.

Thank participant for the ‘face to face’ interview, explain any questions raised and proceed to sign another consent form (see Appendix G). (5 mins)

Explain the purpose of genograms and ask the participant to complete their family genogram on the template provided (see Appendix D). Participants will begin with their grandparents and work down the family tree to themselves (Diseases such as cardiovascular, diabetes and obesity will be identified). (10 mins)

Questions: (no time frame – allow the conversation to flow and be directed by the participant)

Q. 1. I am interested to hear of your experience with weight loss surgery. Perhaps you could start talking about when you first began thinking of having surgery?

- What was happening in your life at this time?
- What do you feel were contributing factors concerning your weight concerns?
- How did you come to feel that surgery was the best option for you?
- What strategies had you tried?
- How did your decision make you feel?
- Can you tell me more about the timeframe from the time of deciding to have surgery to actual surgical date?

Q. 2. In your experience of making the decision to have surgery, what information did you find the most helpful?
• You mentioned you found ... really helpful, how did you know to look for information here?

• Can you tell me about any people/persons that you found particularly helpful?

Q. 3. In your own words, how would you describe your first meeting with the weight loss surgeon?

• Were you advised of any other weight loss procedures or strategies as an intervention for your weight loss? If so, then what happened?

• How was the total weight loss journey explained by the surgeon?

• Are you able to recall any of the tests or requirements that were part of the pathway to having surgical weight loss?

Q. 4. Can you tell me about your experience of weight loss surgery whilst a patient in the hospital?

• When ... happened, how did that make you feel?

Q. 5. You’ve mentioned your experience in hospital, how about when you got home, did you struggle with any particular information or knowing what to do?

• You mentioned you struggled with … is there any information or support that could have helped you during this time?

Q. 6. In your weight loss journey what timeframe did, or has it taken to meet your weight loss expectations?

Q. 7. What, if any were the consequences of rapid weight loss for you?

• Are you able to discuss the implications concerning … for you?

• What do you feel will be the best way to deal with these consequences?
Q. 8. In your own words, can you explain the positive aspects of weight loss surgery for you?

- What has this meant for you?
- Can you talk about any relationships that have changed as a result of your weight loss?

Q. 9. Upon reflection, is there anything you feel that could have better prepared you for the experience of weight loss surgery?

- How do you think these can be addressed?

Thank the participant for their time and for being involved in this research project.

Would the participant like any further involvement in the research study?

Advise the participant that you will call them in 48 hours to ensure they are emotionally well as sometimes questions such as the ones we have just explored bring back emotional responses.

Give participant a business card with researcher’s contact details and the numbers of two telephone counselling services as further support.
References


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