Exploring Adults' Lived Experiences Following Weight Loss and Related Surgery

Daniel Ruth, BSc (Hons), MSc

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Institute of Health and Wellbeing

College of Medical, Veterinary and Life Sciences

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Chapter 1 Systematic Review

Adults' Experiences Following Body Contouring Surgery after Weight Loss: A Meta-Synthesis of Qualitative Studies

Daniel Ruth, BSc (Hons), MSc[1,2]

[1]University of Glasgow/NHS Scotland Clinical Psychology Training Programme, Institute of Health and Wellbeing, College of Medical, Veterinary and Life Sciences, University of Glasgow, 1st Floor, Administration Building, Gartnavel Royal Hospital, 1055 Great Western Road, Glasgow, G12 0XH

[2]NHS Ayrshire and Arran

Correspondence:

Institute of Health and Wellbeing

College of Medical, Veterinary and Life Sciences

University of Glasgow

1st Floor, Administration Building

Gartnavel Royal Hospital

1055 Great Western Road

Glasgow, G12 0XH

Email: Daniel.Ruth@aapct.scot.nhs.uk

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Abstract

Purpose: Body contouring surgery is a procedure that removes excess skin after weight loss. Studies indicate mixed findings on psychological outcomes, with some reporting enhanced psychological well-being, and others reporting adjustment difficulties. This systematic review aims to synthesise qualitative research on experiences after weight loss and body contouring surgery.

Methods: Meta-ethnography was used to synthesise studies. A systematic search was conducted using OVID Interface (MEDLINE and EMBASE) and EBSCO (CINAHL and PsychINFO). Included studies were appraised using the Critical Appraisal Skills Programme UK (CASP) Qualitative Studies Checklist.

Results: Eight studies were included. Five key themes were developed, which were split between two phases: post weight loss and pre body contouring, and post body contouring. Phase One encompassed two themes: 'Desire to be "*better than what I am now*"' and "*I existed; I wasn't living*". Phase Two themes were: "*Better, but not good enough*"; "*A new powerful self*"; and "*Some things are no different*".

Conclusions: The impact of body contouring is complex. Results highlight the importance of managing expectations of surgery and the need for psychological support post-surgery.

Key Words: Obesity, Weight Loss, Bariatric Surgery, Body Contouring, Lived Experiences

Introduction

Obesity is currently a worldwide epidemic and is one of the fastest growing health issues (World Health Organisation, 2018) which is associated with further physical and mental health difficulties including heart disease, hypertension, diabetes, stroke, dementia, low self-esteem, anxiety, and depression (Keskin et al., 2010; WHO, 2018). Compared to other surgical and nonsurgical treatments for obesity, bariatric surgery has been found to be the most clinically effective intervention, which is now widely used for the management of obesity (Buchwald et al., 2004). While bariatric surgery is thought to be largely cost saving, the demand for bariatric surgery continues to rise (Xia et al., 2020).

The physical outcomes of bariatric surgery are generally positive, and research demonstrates a significant improvement in obesity-related medical comorbidities (Sjöström et al., 2014). However, psychological outcomes appear to be more mixed, with evidence of poor self-esteem, increased mood swings, severe body hatred and depression as a result of excess skin following bariatric surgery for some individuals (Gilmartin, 2013). Excess skin is commonly reported around the abdomen, the medial thigh, the upper arms, the back, and the knees (Biörserud et al., 2011), which can also contribute to dermatitis, itching, difficulties engaging in physical activity and finding appropriate fitting clothes (Kitzinger et al., 2012). These difficulties, experienced as a result of significant weight loss, appear to influence the desire for body contouring surgery (Kitzinger et al., 2012).

Body contouring is a type of surgery that aims to remove excess skin resulting from significant weight loss. The specific procedure is dependent on the area in which excess skin is present. Common procedures include abdominoplasty, breast lift, upper arm lift, thigh lift and lower body lift (de Zwaan et al., 2014). Research suggests that body contouring procedures are desired by a notable proportion of individuals that have experienced significant weight loss. For example, Monpellier et al. (2018) found that 62.4% of individuals desired body contouring after bariatric surgery. In addition, this study indicated that individuals experiencing difficulties with their body image and scoring highly on depression symptomology were more likely to desire body contouring procedures. This may suggest that individuals that experience significant weight loss may perceive body contouring as a solution to address their difficulties with body image and mental health.

Research investigating the outcomes of body contouring surgery after significant weight loss appear to be mainly based on quantitative studies, which include a variety of patient outcome measures. For instance, existing systematic reviews have investigated quality of life, which suggest that body contouring contributes to significant clinical improvements in appearance, psychological well-being, physical functioning, and social functioning (Gilmartin et al., 2016; Toma et al., 2018). A critical review (Jabir, 2013) of outcome measures used in quality-of-life studies highlights the need to interpret these findings with some caution. For instance, the review highlighted that studies have included a mixture of psychometrically validated and non-validated outcome measures. Of those that are validated, the review highlights that they were not designed specifically for this population. This raises a question regarding the validity of findings, and thus our understanding of quality of life after body contouring (Jabir, 2013).

Understanding the impact of body contouring can be enhanced with qualitative research, which provides “an in-depth understanding of people’s experiences, perspectives, and histories in the context of their personal circumstances and settings” (Spencer et al., 2003, p.3). Existing qualitative evidence indicates that body contouring can be transformational, and participants have reported enhanced self-esteem and confidence (Gilmartin et al., 2015). However, qualitative research also highlights the difficulties experienced after body contouring, which includes the emotional and financial investment of body contouring surgery, feelings of shame, self-criticism, and anxiety (Ogden et al., 2014). Furthermore, there was a recognition of negative emotions that these procedures do not address, which includes the complexity of adjusting to a new identity (Ogden et al., 2014) and continued difficulties with body image (Smith & Farrants, 2013).

To date, and to the author’s knowledge, there is no published systematic review synthesising qualitative research on adults’ experiences following body contouring surgery after significant weight loss. Therefore, this review aims to take a meta-ethnography approach to synthesise existing qualitative research to develop a greater insight into the mixed outcomes of body contouring surgery (Smith & Farrants, 2013; Ogden et al., 2014; Gilmartin et al., 2015). Findings will help inform clinical practice and future research.

Methods

Registration

In accordance with PRISMA guidelines, this systematic review protocol was registered with the International Prospective Register of Systematic Reviews (PROSPERO) on 13 January 2021, and an update was submitted on 04 July 2021 (CRD42021230877).

Search Strategy

Searches of four database search engines were completed on 07 February 2021. The databases identified included OVID Interface (MEDLINE and EMBASE) and EBSCO (CINAHL and PsychINFO). The search strategy was developed in consultation with a specialist librarian, amended as appropriate per database (see Appendix B, p. 89-92) and included:

1. Key word searches related to main subject terms:
- **Weight Loss:** bariatric procedure* OR surger* OR metabolic OR stomach stapl* OR adjustable gastric band OR bilopancreatic diversion OR gastric bypass OR gastro* OR gastrectomy OR gastroplasty OR jejunoileal bypass OR weight loss
- **Body Contouring:** body contour* OR mastroplexy OR breast lift OR breast reconstruction OR mammaplasty OR upper body lift* OR lower body lift OR thigh lift* OR abdomino* OR plastic surg* OR lipectomy OR reconstructive procedure* or surg* or cosmetic
- **Qualitative Research:** qualitative OR ethnograph* OR grounded theory OR naturalistic* OR IPA OR phenomenolog* OR experience* OR narrative OR interview* OR content analysis OR focus group* OR questionnaire* OR survey* OR thematic analysis
- **Outcome:** life change* OR body dissatisfaction OR body esteem OR body image OR satisfaction OR quality of life OR QoL OR psycholog* OR psycholog* well-being* OR impact OR esthetic* OR aesthetic*

2. The use of MeSH/Subject Headings to map articles to main subject terms.
3. The use of the OR Boolean Operator to combine search lines for each main subject.

Inclusion Criteria

- Studies that recruited adults (age 18 and older) who have had body contouring surgery to remove excess skin following weight loss.
- Any qualitative research design, including mixed methods, that explored individuals' experiences of body contouring surgery following weight loss.

Exclusion Criteria

- Studies not published in full in the English Language.
- Unpublished, non-peer reviewed articles.
- Studies that only include quantitative data.

Review Process

Following the collation of 615 articles, 232 duplicates were removed. The remaining 383 articles were then screened following review of the title (291 removed) and abstract (80 removed). 12 articles remained for full-text review, however the full text for 2 articles was unavailable, despite attempts to contact authors. Of the remaining 10 articles, 5 were excluded because they were quantitative.

A backward and forward citation search was completed for the remaining 5 articles, and 2 additional articles that met the eligibility criteria were found. The additional articles identified reported on the same dataset as one of the included articles from the main database search (Gilmartin et al., 2015).

A search of grey literature databases (OpenGrey, EThOS, Web of Science and Scopus) was also conducted, however no additional studies were found. In addition, a scoping search of Google Scholar found 1 additional article that also met the eligibility criteria.

In total, 8 articles were included in the qualitative synthesis. A PRISMA (2020) diagram details this process within Figure 1.

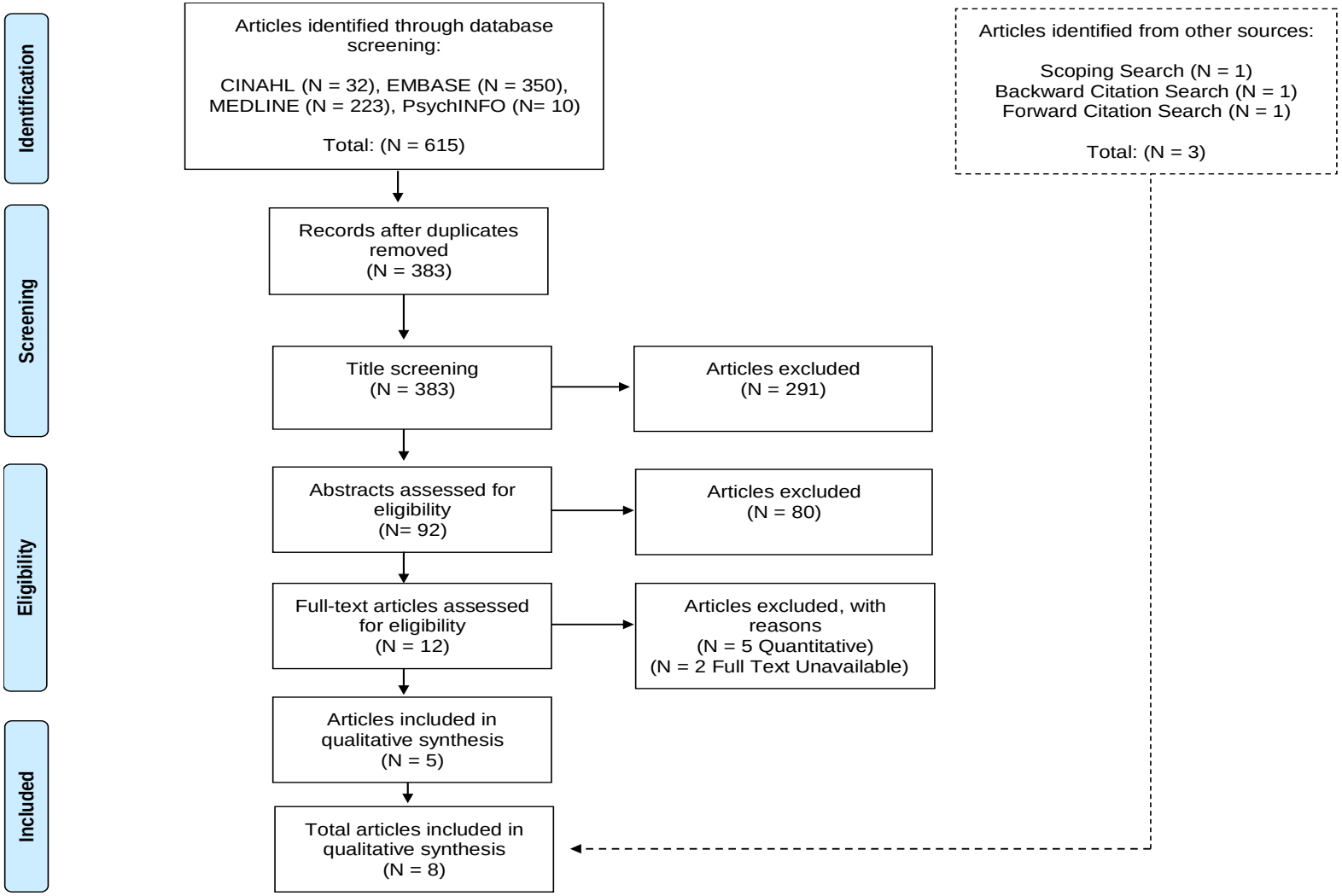

Figure 1. *PRISMA (2020) Diagram – Process from Identification to Inclusion.*

Quality Appraisal

The Critical Appraisal Skills Programme UK (CASP) Qualitative Studies Checklist is a tool used for appraising qualitative research. It includes 10 questions which focus on different aspects of research methodology and details of this can be found within Table 1. CASP was chosen because it was devised for health-related research, is most commonly used for quality appraisal in health and social care qualitative evidence syntheses, and deemed appropriate for novice qualitative researchers (Long et al., 2020).

Quality appraisal was utilised to assess the strengths and limitations of included research, rather than excluding studies based on quality. Some researchers have found that excluding research based on 'poor quality' had no meaningful impact on their synthesis findings (Barbour, 2001; Carrol et al., 2012). In addition, Sattar and colleagues (2021) highlight that lower scores may reflect reporting or word count constraints and not necessarily indicate the research has been poorly conducted.

All included studies were initially rated by the first author, and 4 articles (50%) were selected at random to be co-rated by a Trainee Clinical Psychologist. Initial interrater concordance was 95% (38/40). Differences occurred regarding whether relationships between researchers and participants were adequately considered. These discrepancies were discussed and resolved to reach 100% consensus. The final results of the quality appraisal are detailed within Table 1.

Table 1. *Critical Appraisal Skills Programme UK (CASP) Ratings*

Study #	Authors (Year)	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
S1	Gilmartin, Long & Soldin (2012, 2014 & **2015***)	Y	Y	Y	Y	Y	?	Y	Y	Y	Y
S2	Klassen, Cano, Scott, Johnson & Pusic (2012)	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
S3*	Smith & Farrants (2013)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
S4*	Stuerz, Piza & Kinzl (2013)	Y	Y	Y	Y	Y	N	Y	?	Y	Y
S5*	Ogden, Birch & Wood (2014)	Y	Y	Y	Y	Y	?	Y	Y	Y	Y
S6	Lorenzen, Sørensen, Poulsen, Poulsen & Roessler (2018)	Y	Y	Y	Y	Y	N	Y	Y	Y	Y

Abbreviations: Y = Yes; ? = Unclear; N = No; Q1 = Clear statement of aims; Q2 = Suitable qualitative methodology; Q3 = Appropriateness of research design; Q4 = Appropriateness of recruitment strategy; Q5 = Adequacy of data collection; Q6 = Consideration of relationship between researcher and participants; Q7 = Ethical considerations; Q8 = Rigor of data analysis; Q9 = Clear statement of findings; Q10 = Overall value of research.

***** = Indicates articles that have been co-rated by an independent reviewer.

Method of Synthesis

All 8 articles were included in the meta-synthesis. A table of the study characteristics can be found in Table 2. Three articles reported on the same sample (Gilmartin et al., 2012; 2014 & 2015). It was decided to include them all because they each report on distinct aspects of the wider dataset of relevance to the review. For data analysis purposes, these three articles have been collapsed into a single source point to ensure that this sample was not over-represented in the subsequent synthesis.

Meta-ethnography was chosen as the method of qualitative synthesis as it can be used to synthesise a variety of study designs and it is commonly used within qualitative health research (Sattar et al., 2021). Meta-ethnography is a form of interpretative synthesis which was developed by Noblit and Hare (1988). This approach involves induction and interpretation, which encourages the reader to understand, transfer ideas, concepts, and metaphors across different studies (Britten et al., 2002).

Meta-ethnography is broken down into seven steps (Noblit & Hare, 1998; see Appendix C, p. 93). Sattar et al. (2021) highlight that there can be lack of clarity surrounding the data analysis process. Therefore, they published a worked example of Noblit & Hare (1988)'s original steps. To support the transparency of data analysis, this current review followed their example. This involved three methods of synthesis. The first method involved determining how the studies were related, which was achieved by creating a list of themes, examining their relationships with each other, and then grouping them into relevant categories. The second method involved translating the studies into one another, which practically requires arranging papers chronologically and comparing Paper 1 with Paper 2, and the synthesis of these with Paper 3 and so on. The third stage of synthesis involved a reciprocal synthesis (examining how studies are related) and refutational synthesis (examining and explaining inconsistencies with concepts), which was achieved by juxtaposing first order constructs (participant quotes) and second order constructs (original authors' interpretations) within studies. This led to the generation of original third-order constructs. A line of argument synthesis was then employed, which involves examining how the original third-order constructs relate to each other to produce higher-order interpretations.

Table 2. *Sample Characteristics of Participants*

Study #	Authors (Year) & *Country*	Sample Characteristics	Clinical Characteristics	Data Collection Method & Analysis	Core Themes & *Sub-Themes*
S1*	*Gilmartin, Long & Soldin (2012, 2014 & 2015) *England*	20 Adults (F = 90%) (Mean Age = 46y, Range = 29-63) Ethnicity: Caucasian (100%) Marital Status: N/R Highest Education: N/R Employment Status: N/R	Procedure Type(s): Abdominoplasty (100%), Lower Body Lift (35%), Upper Body Lift (35%), Brachioplasty (35%), Thigh Lift (20%), Mastopexy (5%), Mid Arm Lift (5%). Weight Loss: Bariatric Surgery (80%), Lifestyle Changes (20%) Interval between Bariatric Surgery/Weight Loss and Body Contouring Surgery = 2-5y Interval between Body Contouring Surgery and Interview = <5y	1 Semi-Structured Interview (Community Setting) Duration: 1-2$^{1/2}$ Hours Thematic Analysis	**Fragile Identity** • *Body Image Ugliness* • *Feeling Socially Marginalised* • *Feeling Depressed* • *Sexual/Intimacy Difficulties* **Restricted Lifestyle and Everyday Living** • *Chronic Illness Invasion* • *Eating Habits Pre-Occupation* **Identity Transformation** • *Changing Body Image* • *Social Acceptance* • *Undoing Depression* • *Sexual Vitality* **Radical Shifts in Lifestyle** • *New Creative Opportunities* • *Optimism and Chronic Illness* • *Sustaining Long Term Weight Loss*

S2	Klassen, Cano, Scott, Johnson & Pusic (2012) *USA & Canada*	43 Adults (F = 93%) (Mean Age = 47y, Range = 23-71) Ethnicity: Caucasian (79%), Other (16%), N/R (5%) Marital Status: Married/Common Law (51%), Other (49%) Highest Education: High School (35%), University Diploma (54%), N/R (12%) Employment Status: Employed (63%), Other (33%), N/R (4%)	Procedure Type(s): Abdominoplasty (72%), Liposuction (42%), Upper Arm Lift (33%), Breast Lift (23%), Thigh Lift (21%), Buttock Lift (14%) Breast Reduction (12%) Lower Body Lift (12%) Facelift (5%) Weight Loss: Bariatric Surgery (100%) Interval between Bariatric Surgery/ Weight Loss and Body Contouring Surgery = N/R Interval between Body Contouring Surgery and Interview = <7y	1 Interview (Surgeon's Office or Preferred Location) Duration: N/R Inductive – Line by Line Coding	**Appearance-Related Concerns** **Physical Health Concerns** **Sexual Health Concerns** **Psychological Health Concerns** **Social Health Concerns**
S3	Smith & Farrants (2013) *England*	8 Adults (F = 100%) (Mean Age = 47y, Range = 29-60) Ethnicity: N/R Marital Status: N/R	Procedure Type(s): Abdominoplasty (100%), Bilateral Arm Lift (13%), Bilateral Thigh Lift (13%) Weight Loss: N/R	1 Semi-Structured Interview (Location: N/R) Duration: 50-80 Minutes	**Past Turbulent Experiences of Embodied Existence** • *Shame and Denial of Body in Obesity* • *Increased Awareness of Body by Self and Others in Weight Loss*

		Highest Education: N/R Employment Status: N/R	Interval between Bariatric Surgery/ Weight Loss and Body Contouring Surgery = N/R Interval between Body Contouring Surgery and Interview = 1 Year	Interpretative Phenomenological Analysis	• *Removed Overhang as Disgusting Barrier to Living a New Life* • *Motivational Conflict and Disempowered Role of the Plastic Surgery Patient* **Self-Acceptance in Continued Flux** • *Lack of Self-Acceptance – the Future Focused Body* • *Continued Shame of Hidden Body* • *Continued 'Battle' with Weight* • *Continued Shock at Different Body* • *Body as Butchered but Functional* • *Continuation versus Transformation of Self* • *Hope and Disappointment* • *Connection and Disconnection*
S4	Stuerz, Piza & Kinzl (2013) *Austria*	10 Adults (F = 80%) (Mean Age = 40y, Range = 24-55) Ethnicity: N/R Marital Status: Married (40%), Partnership (50%), Divorced (10%)	Procedure Type(s) = N/R Weight Loss: Bariatric Surgery (70%), Lifestyle Changes (30%) Interval between Bariatric Surgery/ Weight Loss and Body	1 Semi-Structured Interview (Department of Plastic Surgery - Innsbruck Medical University Hospital) Duration: 20-40 Minutes Content Analysis (Mayring Approach)	**Reasons for Plastic Surgery** • *Cosmetic Aspects* • *Emotional Difficulties* • *Functional Difficulties* • *Physiological Problems* • *Reduced Leisure Activities* • *Physical-Sexual Subjective Discomfort* **Changes Caused by the Operation**

		Highest Education: Compulsory Schooling (30%), Higher Education (10%), Vocational School (10%), Vocational Training (50%) Employment Status: Employed (80%), Unemployed (10%), Retired (10%)	Contouring Surgery = N/R Interval between Body Contouring Surgery and Interview = 1 Year		• *Emotional Stabilization* • *Active Self-Actualization* • *Level of Activity* • *Cosmetic Outcome* • *Sexuality* • *Functionality* • *Sex Identity* **Own Body Experience** • *Attitude Toward Own Body* • *Self-Integration of a Body Part Experienced as Foreign* • *Sensory Feeling* **Attitude Toward Plastic Surgery** • *Modification* • *Idealization* • *Polarization* **Potential for Addiction to Plastic Surgery** • *Polysurgery* • *Financial Hurdle* • *Surgical Hurdle*
S5	Ogden, Birch & Wood (2014)	7 Adults (F = 71%) (Mean Age = 45, Range = 35-55)	Procedure Type(s): Abdominoplasty (100%), Arm Lift (57%), Breast (14%)	1 Telephone Interview (Location: N/R)	**Investment** **Goals** • *Health* • *Body Esteem*

	England	Ethnicity: Caucasian (100%) Marital Status: Married (57%), Partner (29%), N/R (14%) Highest Education: N/R Employment: N/R	Weight Loss: Bariatric Surgery (100%) Interval between Bariatric Surgery/Weight Loss and Body Contouring Surgery = N/R Interval between Body Contouring Surgery and Interview = <4y	Duration: 30-50 Minutes Thematic Analysis	• *Choice* • *Feeling Normal* **Barriers** • *Shame and Guilt* • Self-Criticism **Wrong Journey** • *Neglected Mind* • *Possible Damage*
S6	Lorenzen, Sørensen, Poulsen, Poulsen & Roessler (2018) *Denmark*	4 Adults (F = 75%) (Mean Age = 44y, Range = 34-53) Ethnicity: N/R Marital Status: N/R Highest Education: N/R Employment Status: Employed (100%)	Procedure Type(s): N/R Weight Loss: Bariatric Surgery (75%), Lifestyle Changes (25%) Interval between Weight Loss/Body Contouring Surgery = N/R Interval between Body Contouring Surgery and Interview = N/R	1 Focus Group Interview (Location: N/R) Duration: 90-120 Minutes Inductive Analysis	**Concerns and Discomfort** **Change of Body Image** **Expectations and Considerations** **Outcome Concerns** **Self-Confidence and Self-Esteem**

Abbreviations: F = Female, N/R = Not Reported.

*** =** Three articles collapsed into a single source point.

Results

Study and Participant Characteristics

Studies were published between 2012 and 2018. Three studies were completed in England, one in Denmark, one in Austria and one was completed in both the United States of America and Canada. Five studies completed individual interviews with participants, and one study completed a focus group interview.

There were 92 participants across all studies, and 89.1% of these were female. Participant age ranged from 23-71 years (mean: 45.1 years). Of all participants, 66.3% were Caucasian, 26.1% of participants' ethnicity was not reported, and 7.6% were reported as 'other'. Marital status was unreported for 35.9% of participants, 32.6% were married, 22.8% reported as 'other', 7.6% reported as being in a 'partnership' and 1.1% were divorced.

Highest level of education was not reported for 47.8% of participants. Of the remaining participants, the highest level of education was a university diploma (25%), high school (16.3%), vocational training (5.4%), compulsory school (3.3%), higher education (1.1%) and vocational school (1.1%). Of all participants, 42.4% were employed, 40.2% employment status was not reported, 15.2% were reported as 'other', 1.1% unemployed and 1.1% retired.

Before body contouring surgery, 82.6% of participants achieved weight loss through bariatric surgery, 8.7% achieved weight loss through life-style changes, and 8.7% was unreported. There were a variety of body contouring procedures, with some participants undergoing a single procedure and some multiple procedures: 70.7% had an abdominoplasty, 25% had a brachioplasty (arm-lift), 19.6% had liposuction, 15.2% of participants did not have their procedure type reported, 12% had a mastopexy (breast-lift), 7.6% had a lower-body lift, 7.6% had an upper-body lift, 2.2% had a face-lift, 1.1% had a bilateral thigh lift. The interval between bariatric surgery or weight loss achieved through lifestyle changes and body contouring surgery was unreported for 78.3% of participants, and for the remaining 21.7% the interval was 2-5 years. The interval between body contouring surgery and the time of interview was between 1-7 years for 95.6% of participants, and was unreported for the remaining 4.4%.

Quality Appraisal

Overall, the studies were rated as good quality. All studies had clear research aims, use of qualitative design was appropriate and all studies had appropriate research designs and data collection methods. Consideration of ethical issues was present in all studies as demonstrated by declarations of ethical approval. Statements of findings were made clear and valuable to the emerging evidence base on experiences of body contouring after significant weight loss.

Authors' examination of their own role as a researcher and their relationship with participants is important for the credibility of research findings (Dodgson, 2019). It was generally unclear to what extent this had been well considered within the included studies. For example, the three Gilmartin et al. (2012; 2014; 2015) studies mention the interviewer recorded a reflective diary post-interview. Whether these involved examining their role and influence on interpretation of findings was not made explicit. One study stated that good relationships had been established between the interviewer and the interviewee; however, the impact of this on findings are not explicit (Ogden et al., 2014). Three included studies did not state whether they had maintained a reflective log or demonstrate a consideration of their role as a researcher within their write-up (Klassen et al., 2012; Lorenzen et al., 2018 & Stuerz et al., 2013). Smith & Farrants (2013) explicitly stated that they had engaged in three reflexivity interviews to consider what features they might have brought into their research. This included an examination on their role as an 'outsider' to the experience of participants and a consideration of how this may have an impact on power differentials in research interviews.

Studies generally included a detailed explanation and justification of their analysis. However, Stuerz et al. (2013) was given an 'unclear' rating on rigour of analysis due to lack of detail.

The above noted lack of reported reflexivity and rigour of analysis may reflect omission in reporting rather than design, a recognised issue with qualitative research (Sattar et al., 2021).

Researcher Reflexivity

The researcher is a Trainee Clinical Psychologist, who has supported individuals presenting with mental health difficulties. It was therefore important to maintain an awareness of potentially overidentifying mental health related themes from the dataset.

As a gay man, the researcher is aware of their own vulnerabilities with body image difficulties, which is associated with being part of a sexual minority group (Meneguzzo et al., 2020). It was important for the researcher to capture the data as a whole, rather than potentially 'seeking out' body image concerns.

In addition, the dataset is perceived through the lens of a white cis-male, with no personal or professional experience of body contouring surgery. This was important to consider, given the research also represents non-white (non-'Caucasian') and female participants.

These factors were considered through the use of reflective notes and research supervision. In addition, following Sattar and colleagues (2021)'s worked example of meta-ethnography has informed a systematic approach to both the article selection and analysis. Therefore, similar findings might be developed from another researcher, albeit conceptualised in different ways.

Results of Meta-Synthesis

The meta-ethnography process elicited five key themes split between two phases: post weight loss and pre body contouring, and post body contouring, as detailed in Table 3. Phase One encompassed: 'Desire to be *"better than what I am now"*"; *"I existed; I wasn't living"*. Phase Two themes were: "*Better, but not good enough*"; *"A new powerful self"* and *"Some things are no different*".

Table 3. *Phases and Key Themes from Meta-Synthesis*

Phase	***Key Themes***
Post Weight Loss & Pre Body Contouring	*Desire to be "better than what I am now"*
	"I existed; I wasn't living"
Post Body Contouring	*"Better, but not good enough"*
	"A new powerful self"
	"Some things are no different"

Phase One: Post Weight Loss, Pre Body Contouring Surgery

Desire to be "better than what I am now"

Participants across studies reflected on their experience of excess skin after losing weight. Despite their success at achieving significant weight loss, participants appeared to have a self-critical style of relating to themselves. This is evident in the following quotations:

> *"I've gone through all the weight loss to land up with massive loose skin. Just ugly, horrible; unattractive; gross, in fact. It's also how other people see you as well, the gaze of others"* [Female Participant] (Gilmartin et al., 2012, p. 14).

> *"You feel abnormal, with all that skin, yes. How do you feel? Abnormal. You feel like a freak. I felt like a monster."* [Female Participant] (Klassen et al., 2012, p. 1532).

These quotations highlight participants' distress, conveyed through highly emotive language and repetition of numerous derogatory words to describe themselves. This insight into their self-perception, for example, in describing themselves as *"abnormal"* and a *"monster"*, suggests participants can feel inhuman and anticipate being ostracised by others. They communicate a clear sense of vulnerability heightened by the presence of excess skin after weight loss.

The anticipation of others' negative perceptions and risk of being ostracised was prevalent in the context of being intimate with others, demonstrated in the following quotations:

> *"It was very horrifying because you would have to lift the belly up to even get to it* [vagina]*, to find it, and it was just, it was horrifying."* [Female Participant] (Klassen et al., 2012, p. 1531).

> *"Before* [body contouring surgery]*, I would never let anyone stroke my tummy"* [Participant Gender – Not Reported] (Stuerz et al., 2013, p. 548).

These quotes highlight how intimacy could be an uncomfortable and unenjoyable experience as a result of excess skin. Indeed, the sexual encounter described above as *"horrifying"* suggests a highly distorted sense of how they may appear during intercourse, which may result in some aspects of intimacy being avoided as in the Stuerz et al. (2013) excerpt.

Given the dissatisfaction with excess skin, participants provided retrospective accounts of their expectations of body contouring surgery. A common goal for surgery appeared to be to enhance participants' sense of self.

> *"Before I had the* [body contouring] *surgery and before I lost the weight, I didn't like me. I had very low self-esteem. I was depressed all the time. I didn't think that I had anything to offer anyone else."* [Female Participant] (Klassen et al., 2012, p. 1531).

> *"I know the operation is not one that is going to be a miracle but it will be a lot better than what I am now."* [Female Participant] (Smith & Farrants, 2013, p. 1134).

These quotes highlight that participants hoped to improve how they felt about themselves and, across studies, participants acknowledged the impact of excess skin on their psychological well-being. Hopes of becoming "*better than what I am now*" were described by participants across studies post weight loss and pre body contouring, indicating the ongoing dissatisfaction in how they perceived themselves despite weight loss, and motivation for body contouring surgery.

"I existed; I wasn't living"

Participants across studies reflected on the restrictions they had experienced post-weight loss and prior to body contouring surgery.

> *"I was awful. I didn't want to go swimming or to the gym or socialise. I feel I existed. I wasn't living. I felt hurt by other people's comments"* [Female Participant] (Gilmartin et al., 2012, p. 14).

> *"The big loose skin out of my stomach restricted my mobility. I wouldn't want to spend a day at the park with my friends and play games. So mentally I was restricted. So that was depressing, because, like, I even had thoughts of, just wanted to get a knife and just cut … cut it myself"* [Female Participant] (Gilmartin et al., 2012, p. 19).

These quotes convey the grief and loss of valued activities due to perceived restrictions imposed by the presence of excess skin. Again, negative self-perception and concern over others' perceptions remain apparent. These accounts present a sense of merely existing and not feeling able to live a valued and meaningful life, due to the physical and mental impact of excess skin.

The impact of self-imposed restriction on psychological well-being was described as pervasive:

> *"I didn't feel confident at all. I felt disgusted with a great, big, massive hanging belly. I didn't go to work. I didn't do anything, stayed indoors, felt depressed and claimed benefits"* [Female Participant] (Gilmartin et al., 2012, p. 13).

> *"I didn't go out as much as I did before. I didn't want to socialize as much. You try to be invisible 'cause you don't want people to notice, you know?"* [Male Participant] (Klassen et al., 2012, p. 1532).

In these accounts, social isolation serves to attempt 'invisibility' to hide excess skin, exacerbating a sense of perceived existing and not truly living prior to body contouring procedures.

Phase Two: Post Body Contouring Surgery

"Better, but not good enough"

Experiences after body contouring surgery were mixed:

> *"Initially I was so excited as it* [body] *looked much better and then a bit disappointed when I realised they weren't perfect, using that in inverted commas, but they are still much better but not good enough to wear a strappy top yet in my opinion"* [Female Participant] (Ogden et al., 2014, p. 301)

> *"I'm like Frankenstein. I've got a long scar that goes all the way down my abdominal area. Once, um, I was having a bra fitting and the lingerie assistant saw it and said 'Oh my God! Have you been burnt'. I didn't want to be spoken to like that"* [Female Participant] (Gilmartin et al., 2012, p.25; 2014, p. 154).

> *"That* [body contouring] *has given me a really, really nice flat tummy umm the only problem is now my midriff, it starts popping out, I look like a penguin"* [Female Participant] (Ogden et al., 2014, p. 301).

The aesthetic benefits of body contouring surgery are contrasted here with disappointment of still not being "*perfect*". Gilmartin et al. (2012, p. 25 ; 2014, p. 154) suggest that perceived 'imperfections' were a "*defining element of appearance and self-perception*", which is particularly evident with participants likening themselves to a "*penguin*" and "*Frankenstein*". This is remarkably similar to earlier accounts of being a "*monster*" and "*abnormal*" (Klassen et al., 2012), where feelings of being inhuman

were present, and do not appear to have resolved after initial body contouring procedures.

In a bid to feel "*human*" and achieve "*perfect*" results, some expressed a desire for additional procedures:

> *"I want to take those two stone off and get back so I can wear those clothes that made me feel a lot better. But also, I want this* [excess skin] *corrected"* [Female Participant] (Smith & Farrants, 2013, p. 1133).

> *"If my medical insurance carrier paid for it, I'd get everything done anytime"* [Participant Gender - Not Reported] (Stuerz et al., 2013, p. 548).

> *"But yeah I am more confident now. Once I have had this other surgery now hopefully I will be totally totally confident"* [Female Participant] (Smith & Farrants, 2013, p. 1133).

Across studies, participants recounted their hopes that initial body contouring procedures would enhance their self-perception by increasing confidence and body image satisfaction. However, their accounts reveal that body contouring sometimes failed to meet these expectations fully. Ogden et al. (2014, p. 301) highlight that results of initial procedures may be "*undermined by constant self-criticism*". This self-criticism was widely evident across the dataset, and appeared to contribute to a desire for further modification until an enhanced or ideal self-perception is achieved.

"A new powerful self"

However, some participants appear to have felt empowered by body contouring surgery:

> *"A new powerful self emerged. I am happy with my body shape and self-perception. The surgery dramatically altered my physical appearance and inner world too. The journey has birthed a new personality and identity"* [Female Participant] (Gilmartin et al., 2012, p. 24; 2015, p. 1322).

> "*Between losing weight and getting my arms done, I am definitely a more confident person than I ever was my whole entire life"* [Female Participant] (Klassen et al., 2012, p. 1532).

For some participants, the opportunity through body contouring to physically alter their external selves had a significant impact on their self-perception. Indeed, Gilmartin et

al. (2015, p. 1322) described how body contouring contributed to a "*strong sense of personal transformation alongside their bodily transformation*", which provided some participants with an opportunity to embrace a new identity.

The sense of a new identity appears to have had a positive impact on experiences of sexual intimacy:

> *"My sex life is already better, much freer. I don't have to hide anything anymore"* (Stuerz et al., 2013, p. 548).

> "*Um, I'm a lot happier about sexual intimacy, in fact, I say happier, but my husband says that I basically 'flaunt myself' at him now; whereas before surgery, I couldn't bear him seeing me without my clothes on"* [Female Participant] (Gilmartin et al., 2012, p. 29; 2014, p. 158).

In comparison to earlier descriptions of participants seeking invisibility through self-imposed restrictions, these post-body contouring accounts report feeling free from needing to hide themselves which has contributed towards a more liberated sex life. The contrast between "*I couldn't bear him seeing me without my clothes on*" before surgery, to "*I basically flaunt myself now*" conveys the experience of transformative empowerment and a new sense of self.

In addition, body contouring surgery appears to have prompted some to seek new challenges and to re-visit valued activities:

> *"The reconstructive surgery did play a big, big, big part in my confidence and what I wanted to do. I mean now, I've got my Law degree, got a 2:1 in Law & Politics. I love going to work everyday and never stay home"* [Female Participant] (Gilmartin et al., 2012, p. 32; 2015, p. 1325).

> *"I am more active in the local theatre group. I joined a writing group online to connect with new people. I met my husband in the writing group. We are hoping to write some plays together"* [Male Participant] (Gilmartin et al., 2012, p. 27 & 2014, p. 156).

The new powerful self, described by some participants, involved the development of new relationships, enhancement of existing relationships and intimacy, and a renewed investment in valued living, related to increased confidence and enhanced psychological well-being.

”Some things are still no different”

The process of ongoing adjustment after body contouring surgery is illustrated by the following quotations:

> “*It’s taken me quite a few years to get used to the scarring. I used to be, still am a bit dysmorphic. That triggers depressive thoughts. Erm, I don’t think that will ever change”* [Female Participant] (Gilmartin et al., 2012, p. 28; 2014, p. 157).

> “*I have got no idea about that* [consideration of the future]*, that is something that is put on a different shelf. It’s not like you can go and buy one get one free* [body contouring procedures]. *You can’t. That’s a different issue. That is something that I am learning to cope with. Not live with but cope with”* [Female Participant] (Smith & Farrants, 2013, p. 1134).

These accounts highlight difficulties adjusting to changes imposed by body contouring surgery. This appears related to earlier accounts of distress related to body image, perpetuated by resultant scars from body contouring. *“I don’t think that will ever change”* and *“that is something that I am learning to cope with”* illustrate how entrenched these difficulties are for some participants, constituting barriers in adjusting to life after surgery.

After a journey of losing weight and receiving body contouring, participants reflected on psychological aspects that surgery had not addressed:

> *“Some things are still no different. They don’t operate on your head. I understand all the theory, I just don’t do all the theory. I think the people who are successful long term are those who deal with their emotional eating. For me its boredom.”* [Female Participant] (Ogden et al., 2014, p. 302).

> *“Of course your moods are better but I need counselling or access to a support group because you’ve gone from this big person that was 30 stone… plus, to someone who is now like 12 stone but your mind and self-perception are still exactly the same… quite hard to adapt emotionally to the changing body”* [Female Participant] (Gilmartin et al., 2012, p. 24; 2014, p. 157; 2015, p. 1323).

> *“If only I had been counselled correctly if only I had that support I would have known it’s imperative to change your eating habits and everything but nobody was there to say look this is something you can struggle with but you need to take the following actions a, b, c or whatever and I felt lost and obviously we*

> *have all been eating because of emotional issues and head hunger because other people can be addicted to anything else but obviously my addiction was food"* [Female Participant] (Ogden et al., 2014, p. 303).

These accounts highlight the presence and importance of adjustment difficulties after surgery and within these studies, participants reflected on how they would feel differently about themselves if formal support were available to address these psychological factors.

Discussion

This systematic review focused on the experiences of body contouring surgery after weight loss. The aim was to synthesise and develop a greater understanding of the reported mixed outcomes of body contouring to inform clinical practice and future research.

The analysis process elicited findings across two phases: post weight loss and pre body contouring, and post body contouring. Within the first phase, participants communicate a self-critical style of relating to themselves, which is associated with distress, grief, and self-imposed restriction due to living with excess skin. A common goal for body contouring surgery was enhancing self-perception and to re-engage with valued activities, which some participants felt could only be achieved by adjusting the appearance of their body.

In the second phase, the impact of body contouring is variable across participants, and this variability is present across studies. Some participants' self-critical style did not shift after surgery - 'body imperfections' were highlighted and there was a desire for further procedures to achieve an enhanced sense of self. In comparison, other participants' experience of body contouring was transformational, which had a positive impact on intimacy, valued living, confidence, and psychological well-being. However, across studies, participants also highlighted difficulties with adjusting to changes after surgery, which appear to perpetuate psychological difficulties.

A partial explanation for the mixed findings within the review might be the prevalence of existing mental health difficulties experienced by participants. For instance, research suggests that morbidly obese individuals seeking weight loss surgery differ from the general population, and individuals with milder forms of weight difficulties, with respect to levels of mental distress (Abilés et al., 2010). In this current review, Gilmartin et al. (2012; 2014; 2015) reported that 50% of their participants had a history of depression

due to childhood maltreatment, and 40% of these cases involved experiences of sexual abuse from a family member. In addition, Ogden et al. (2014) reported that one of their participants had a diagnosed eating disorder. However, it has not been possible to examine the relationship between adverse childhood experiences and mental health difficulties on outcomes of body contouring surgery after weight loss, because not all papers recorded this information.

Furthermore, an additional explanation for mixed findings might be the time between surgery and data collection. For instance, the time since surgery within the included studies ranged from 1-7 years, which could account for some variability. Unfortunately, individual time frames for each participant were not accounted for in all studies and it was therefore not possible to explore this in more depth.

Given the complexity of outcomes after weight loss and body contouring surgery, researchers have developed the 'BODY-Q', a patient-reported outcome measure which considers outcomes across the entire weight loss journey (e.g., from obesity to after body contouring) (Klassen et al., 2018), measuring appearance, health related quality of life, experience of healthcare and obesity-specific symptoms. Klassen et al. (2018)'s study indicated that 24 participants had one or more body contouring procedures, and 20 of these participants required more to address other areas of their body. In addition, a recent study using the BODY-Q found that psychological well-being increased for those who had more than one body contouring procedure (Elfanagely et al., 2021). This suggests that a single body contouring procedure may not be perceived as enough for some individuals. However, body contouring is currently perceived as cosmetic in nature and not funded by most health-care providers (Klassen et al., 2018), and findings of enhanced psychological well-being mostly represent participants that have accessed funding for additional procedures. A limitation of this review is that not all articles reported education and employment. The studies that did include this information indicate that the current sample largely represents participants who have achieved a university level qualification and are in current employment. Therefore, included studies may not represent people from lower socio-economic backgrounds that may not have the financial means to fund body contouring procedures.

Strengths and Limitations

To the author's knowledge, this is the first systematic review synthesising qualitative research on experiences of body contouring after weight loss. As presented in this

review, published qualitative literature is limited to a small sample of studies. Quantitative research in this area also appears to be limited; a quantitative systematic review investigating quality of life after weight loss and body contouring found 9 papers (Gilmartin et al., 2016), and a later review found 11 papers (Toma et al., 2018).

It was difficult to evaluate to what extent researcher reflexivity was considered in the majority of papers, which is important to consider when interpreting results. However, the lack of reporting on reflexivity might be explained by the word limits of journals. Missing detail may have influenced the appraisal of quality for studies, therefore impeding accurate reflections of the profiles of methodological strengths and weaknesses (Sandelowski & Barroso, 2000).

In addition, three of the eight articles included in the current review are based on the same sample of participants, and it is recognised that this may overrepresent the themes and interpretations from Gilmartin et al. (2012; 2014 & 2015). To address the risk of overrepresentation, the current author sought to address this by pooling the results from the three papers into a single source point.

An additional limitation of this review is the underrepresentation of men and non-white (non-'Caucasian') ethnic groups. Existing literature highlights gender differences on the perspective of the 'ideal body'. Generally, men appear to strive for muscularity and leanness (Thompson & Schaefer, 2018; Tiggemann et al., 2007), whereas women appear to strive for a thin body (Gordon et al., 2010). In addition, research demonstrates ethnic differences in terms of body satisfaction, which may be influenced by cultural differences in perceptions of body weight and shape (Roberts et al., 2006). Furthermore, the articles included in the review did not report information on sexual orientation, and research highlights sexual minority men and women are increasingly vulnerable to body image concerns (Michaels et al., 2013; Boroughs et al., 2010). Increasing the representation within research can provide further insight into the experiences of these groups and help explain some mixed findings within the weight loss and body contouring literature.

Included studies were based in different countries with differing healthcare systems, so participants may have received different provisions of care, which may have had variable costs associated with their weight loss and body contouring journey. Differing economic implications may have had an impact on individual experiences; however, it is difficult to establish what effect this variability has had on the transferability of findings due to the limited reporting of healthcare context.

Implications

The review highlights common goals for body contouring surgery reported by individuals obtaining the procedure, including to enhance self-perception and re-engage with valued activities. Participant accounts of the results of body contouring surgery were mixed, suggesting that these goals were not met for all participants. These findings indicate the importance of managing expectations, which may be achieved by supporting individuals to understand, address and seek support for complex factors influencing their desire for body contouring surgery. This is particularly important given the economic, physical, and psychological implications of body contouring surgery.

Some participants describe body contouring surgery as transformational, due to the reduced burden of living with excess skin after weight loss. This may challenge health-care providers perception of body contouring being purely cosmetic in nature (Klassen et al., 2018), given that the results for some participants have had a positive impact on their psychological and physical well-being.

As indicated by some articles in the current review, some participants have reported prior lived experience of trauma and psychological difficulties, which may have affected their experience of obesity and subsequent weight loss journey. In addition, the review highlights that psychological difficulties cannot be solely addressed by surgery itself. This should inform services of the potential challenges experienced by individuals seeking surgery and the need for trauma-informed care with psychological support for individuals pre- and post-surgery.

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Chapter 2 Major Research Project

Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context

Daniel Ruth, BSc (Hons), MSc[1,2]

[1]University of Glasgow/NHS Scotland Clinical Psychology Training Programme, Institute of Health and Wellbeing, College of Medical, Veterinary and Life Sciences, University of Glasgow, 1st Floor, Administration Building, Gartnavel Royal Hospital, 1055 Great Western Road, Glasgow, G12 0XH

[2]NHS Ayrshire and Arran

Correspondence:

Institute of Health and Wellbeing

College of Medical, Veterinary and Life Sciences

University of Glasgow

1st Floor, Administration Building

Gartnavel Royal Hospital

1055 Great Western Road

Glasgow, G12 0XH

Email: Daniel.Ruth@aapct.scot.nhs.uk

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Plain Language Summary

Title: Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context

Background

Bariatric surgery is an effective weight loss surgery for people who are obese. People that have bariatric surgery may experience difficulties with their body image due to excess skin after surgery (Gilmartin, 2013).

Men are not often represented in research regarding body image after bariatric surgery which might be because men appear to minimise body image concerns (Edward et al., 2016). Research also has yet to reflect experiences of public healthcare such as provided in Scotland, where body-altering procedures after the surgery are unlikely to be offered. It is therefore important to capture the impact of body image in men within a public healthcare setting.

Aims

The main aim of this project is to explore the lived experiences of men that have had bariatric surgery and the impact on body image.

Methods

Seven cis-men that received bariatric surgery within the past 1-8 years were recruited from a health board in the West of Scotland. Each participant took part in an interview exploring their experiences of bariatric surgery and body image. An approach called 'Interpretative Phenomenological Analysis' allowed detailed examination of these lived experiences.

Results

Three main themes were identified: *Feeling Abnormal*, *Seeking Change*, and *Ambivalence Towards Change*. These included several smaller themes which described a range of different experiences after surgery, positive and negative.

Conclusion

The research contributes to the understanding of men's experience of body image and bariatric surgery. It both highlights the positive and negative consequences of surgery, and the need for psychological support after the procedure.

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Abstract

Purpose: Bariatric surgery is a successful weight loss solution for individuals living with obesity. The literature highlights that bariatric surgery can improve body image, but also result in body image dissatisfaction. The literature is largely representative of females' experiences. The aim of this study is to explore the lived experiences of cis-men that have received bariatric surgery within a public healthcare context.

Methods: 7 cis-men who had a sleeve gastrectomy within NHS Ayrshire & Arran between 1-8 years ago took part in a semi-structured interview exploring their experiences of body image and bariatric surgery. This was analysed through Interpretative Phenomenological Analysis (IPA).

Results: The analysis generated several subordinate themes within the superordinate themes of *Feeling Abnormal*, *Seeking Change* and *Ambivalence Towards Change*.

Conclusion: The research highlights the positive and negative consequences of bariatric surgery. It also emphasises the need for psychological support post-surgery to aid adjustment.

Key Words: Obesity, Bariatric Surgery, Body Image, Lived Experience, IPA

Introduction

Obesity is a worldwide epidemic and is currently one of the fastest growing health issues (World Health Organization, 2018). Within Scotland in 2018, 65% of adults aged 16 years and over were classed as overweight, of which 29% were classified as obese (Scottish Government, 2018). Obesity can have a detrimental impact on an individual's physical and mental health, which can include heart disease, hypertension, diabetes, stroke, dementia, low self-esteem, anxiety and depression (Keskin et al., 2010; WHO, 2018).

Bariatric surgery is currently the most effective available treatment for obesity that produces substantial weight loss. Many individuals who have bariatric surgery report significant improvements in obesity-related medical comorbidities (Sjöström et al., 2014). However, in terms of body image, the evidence is mixed.

Research suggests that a proportion of individuals who have had bariatric surgery report improvements in body image, body esteem and a reduction in body image avoidance (Ivezaj & Grilo, 2018; Madan et al., 2008; Williams et al., 2018). However, there is also evidence that bariatric surgery does not improve, or even worsens, body image for some. For example, some individuals who have had bariatric surgery describe their body image as 'ugly' and 'problematic' as a result of loose hanging skin post-surgery (Gilmartin, 2013). Perception of excess skin appears to contribute to poor self-esteem, increased mood swings, and even severe body hatred and depression for some individuals (Gilmartin, 2013). In addition, research suggests some individuals perceive their excess skin as "worse than being fat" and seek plastic surgery to remove this with the aim of looking "normal" (Coulman et al., 2017, p. 554).

Further research has investigated individuals' expectations of bariatric surgery, which is one factor that might influence mixed findings on the impact of bariatric surgery on body image. For instance, research suggests that individuals may have high expectations of the procedure, which include to "look more slim and beautiful", to "more easily find a husband" and to improve physical intimacy (Cohn et al., 2019, p. 1613-1615). Although research suggests that expectations of new relationships were met for some individuals (Coulman et al., 2017), it may be that unmet high expectations about secondary outcomes could lead to dissatisfaction.

These findings appear to be in line with research on body image concerns in women more generally, where there appears to be a theme of body dissatisfaction and the desire for 'thinness' as widely presented in the media (Bearman et al., 2006; Fouts & Vaughan, 2002).

Although male body image appears to be complex, with desire to be ‘slim’, ‘muscular’ and ‘not too muscular’ (Drewnowski & Yee, 1987; McCabe & Ricciardelli, 2004; Silberstein et al., 1988), it is unclear how this translates to a bariatric population because men are underrepresented within the literature surrounding bariatric surgery.

Research has started to look at these issues in men. For instance, a qualitative study found that men who had received bariatric surgery reported hair loss concerns as a result of decreased consumption of food and nutrients (Edward et al., 2016). In addition, men also reported excess skin being ‘unattractive’. Although there were some body image related concerns, men reported feeling ‘generally happier’ with their body image after bariatric surgery (Edward et al., 2016).

It was observed that men appeared to minimise their concerns in relation to body image by identifying that improving physical health was their primary motivation for surgery (Edward et al., 2016). This echoes previous findings that suggest men appear to minimise the cosmetic benefits of surgical interventions for weight loss (Bocchieri et al., 2002; Brantley et al., 2014). A review investigating help-seeking behaviour suggests that men are “more likely than women to focus on physical problems” and are “less likely to disclose mental and emotional problems”; it might be that these men supress these concerns in a bid to maintain their masculine identities (Smith et al., 2006, p. 81).

Males are more likely than females to be classified as being overweight and obese (67% compared to 63%); (Scottish Government, 2018). Furthermore, lean and muscular representations of male physiques are increasingly visible in popular culture (Strother et al., 2012), potentially heightening male body image concerns. A deeper understanding of body image concerns in men in comparison those documented in women, particularly in the bariatric population, is warranted.

Despite the small body of emerging evidence cited above, studies published to date are from Australia and the United States of America, where the healthcare systems are different the United Kingdom (UK). For instance, concerns regarding additional costs with surgery, which include ongoing appointments with dieticians, psychologists, and potentially plastic surgery to remove excess skin (Edward et al., 2016), may differ in a public healthcare context. Experiences of pre- and post-surgery care differed for those who could not afford the involvement of different disciplines within routine bariatric surgery care and individuals faced different access to avenues for altering body image post weight loss. It is therefore important to investigate in a public healthcare setting, in which excess skin removal is unlikely to be offered.

In summary, bariatric surgery is currently the most effective treatment option for obesity and literature alludes to mixed findings in terms of body image post bariatric surgery. Men are underrepresented within the literature, and research to date has been conducted outside of the UK. This warrants further research to address this gap by exploring potential body image concerns in men who have received bariatric surgery through public healthcare.

Aims

The main aim was to explore the experiences of body image in men that have received bariatric surgery within a public healthcare setting.

Methods

Ethics

Ethical approval was obtained (Research Ethics Committee, REC Reference: 20/NE/0281; NHS Ayrshire & Arran Research and Development, R&D Reference: 2020AA081; Appendices D-E, p. 94-101)**.** Due to initial recruitment difficulties, an amendment with broadened inclusion criteria and additional recruitment strategy was subsequently approved (REC Amendment Number: AM02 31032021; R&D Amendment Ref: AM02 31.01.21; Appendices F-G, p. 102-106). Informed consent was obtained from participants verbally and on a consent form (Appendix K, p. 114-115 & Appendix N, p. 121-122). The consent form also requested consent for the researcher to send participants' GP a letter to inform them of their participation (Appendix Q, p. 128).

Recruitment

Inclusion and exclusion criteria were applied to ensure an appropriately homogenous sample was obtained; see Table 1.

Individuals that had bariatric surgery within 1 year of recruitment were excluded because research describes an initial 'honeymoon phase' (Lynch, 2016), and the study sought to capture experiences once weight loss had stabilised.

Those who had a gastric band were excluded because this was not a surgical procedure offered by the health board within the timescale of this study. In addition, those who had a

gastric band and then a gastric bypass or sleeve gastrectomy were excluded, because a combination of these procedures is likely to protract the time required for adjustment.

Those who received a gastric balloon without going on to have a gastric bypass or sleeve gastrectomy were excluded, because gastric balloons are a temporary measure.

Table 1. *Inclusion and Exclusion Criteria*

	Inclusion	**Exclusion**
Original Criteria	Cisgender males that have received a gastric bypass or sleeve gastrectomy within the last 5 years, but no earlier than 1 year, under the care of NHS Ayrshire & Arran. Aged 18 years or older Able to provide informed consent. Access to a suitable device, internet access and a private location.	Have had a gastric band plus gastric bypass or sleeve gastrectomy. Received a gastric balloon without going on to have a gastric bypass or sleeve gastrectomy. Have had additional cosmetic procedures to alter body image.
Amended Criteria	Timeframe of surgery amended to the last 8 years, but no earlier than 1 year. All other criteria remain the same.	Same as above.

Procedure

Eligible participants were identified by the NHS Ayrshire and Arran (A&A) Bariatric Service and initially sent a letter and a participant information sheet with contact details of the primary researcher (Appendix H-I, p. 107-112 & Appendix L, p. 116-119). An advertisement was e-mailed to a service user representative who placed this on the service-user led Bariatric Support Group on Facebook (Appendix J, p. 113 & Appendix M, p. 120).

Due to initial recruitment difficulties, following an approved ethics amendment, an NHS A&A Bariatric Nurse telephoned eligible participants to discuss participation, which increased the total number of participants from 1 to 7. A total of 8 participants expressed interest but 1 was not eligible due to having no access to a suitable device or internet access.

Participant Characteristics

All participants were white, cisgender males who received a sleeve gastrectomy under the care of NHS A&A within the last 1 - 7 years (mean: 2.4 years). The average age was 47 years (range: 38 - 63 years). Three (42.8%) participants described themselves as cohabitating, 2 (28.6%) were married, 1 (14.3%) was engaged and 1 (14.3%) separated. Five (71.4%) identified as heterosexual, whilst 2 (28.6%) identified as homosexual. Five (71.4%) were employed, 1 (14.3%) retired and 1 (14.3%) unemployed. Full details of participant characteristics can be seen within Table 2.

Table 2. *Participant Characteristics*

Pseudonym	Age	Ethnicity	Marital Status	Sexual Orientation	Employment Status	Type of Surgery	Time Since Surgery
Adam	38	White	Cohabitating	Homosexual	Employed Full Time	Sleeve Gastrectomy	2 Years
Barry	63	White	Married	Heterosexual	Employed Part-Time	Sleeve Gastrectomy	7 Years
Callum	57	White	Engaged	Heterosexual	Retired	Sleeve Gastrectomy	1 Year
Fraser	47	White	Married	Heterosexual	Unemployed	Sleeve Gastrectomy	2 Years
Gregory	38	White	Cohabitating	Heterosexual	Self-Employed	Sleeve Gastrectomy	2 Year
Jeremey	41	White	Cohabitating	Homosexual	Employed Full-Time	Sleeve Gastrectomy	1 Year
Zachary	42	White	Separated	Heterosexual	Employed Full Time	Sleeve Gastrectomy	2 Years

Justification of Sample Size

Guidance for IPA studies suggest small and homogenous samples, with a recommendation of six to eight participants to allow consideration of the depth and detail of each case (Smith, et al., 2009). In line with additional guidance for doctoral level projects, seven participants were recruited for this study. Recruitment ceased when concurrent analyses indicated sufficient data had been obtained to address research aims (Smith et al., 2009).

Data Collection

A semi-structured interview schedule was developed (Appendix O, p. 123-125) and used flexibly for participants to discuss points they felt were central to their experiences. Due to the COVID-19 pandemic, interviews were completed via Microsoft Teams, and lasted between 20-54 minutes, and on average lasted 30 minutes. Demographic information was collected once interviews were completed (Appendix P, p. 126-127).

Analysis

An Interpretative Phenomenological Analysis (IPA) approach was chosen because it allows a close examination of participants' lived experience, which provided an opportunity for them to elaborate freely and in depth. In addition, IPA is described as having a 'double hermeneutic', which acknowledges the role of the researcher's own beliefs and experiences when endeavouring to make sense of participant views and sense-making. It was therefore important for the researcher to maintain reflective notes throughout the data collection and analysis process. This allowed the author to be immersed within the data, and to keep track of thoughts and interpretations. The analysis followed six stages as outlined by Smith and colleagues (2009): firstly, verbatim transcription and immersion in the data, which involved re-reading transcripts several times. Initial notes of semantic content and use of language were made; (Appendix R, p. 129). Notes were then examined to develop themes from each interview (Appendix S, p. 130). Themes were then examined to consider connections across these, which involved identifying superordinate and subordinate themes. This process was repeated for each transcript, and the final stage involved looking at patterns across the cases to identify potential connections.

Researcher Reflexivity

IPA acknowledges the researcher's role in interpreting data and developing themes. The researcher has prior experience working therapeutically with individuals that presented with eating-relating difficulties, which resulted in significant weight gain, and specifically with individuals seeking bariatric surgery.

As a gay cis-male, the researcher is aware of their own vulnerabilities with body image difficulties, which is associated with being part of a sexual minority group (Meneguzzo et al., 2020). It was therefore important for the researcher to be aware of potentially 'seeking out' body-image concerns in cis-males. This was considered through the use of the reflective notes and research supervision.

Furthermore, the researcher conducted a systematic review of research exploring experiences of body contouring after weight loss. Awareness was given to potential influences when developing themes from the reading of existing and related research.

Results

The analysis elicited three superordinate themes, which include several subordinate themes (Table 3).

Table 3. *Superordinate Themes and Subordinate Themes*

Feeling Abnormal
Negative Self-View
Being Bullied
The Impact of Perceived Masculinity
Relationship with Food
Seeking Change
To Save My Life
Inconvenience of Buying Clothes
Ambivalence Towards Change
Feeling Normal
A New Lease of Life
Surgery Is Not Enough

Feeling Abnormal

'Feeling abnormal' was described by most participants before bariatric surgery. This was underpinned by a negative self-view, being bullied, the impact of perceived masculinity and their relationship with food.

Negative Self-View

The majority of participants described a negative self-view before surgery:

> *"Oh I absolutely hated it* [appearance]. *I hated myself. Erm, I knew I was overweight, I always tried to do something about it, and always failed, always"* (Zachary, 4-5).

Zachary recounted a self-critical style of relating to his appearance prior to bariatric surgery. This features highly emotive and emphatic language, where *"hated"* and *"failure"* and use of repetition indicate his strength of body hatred and repeated attempts to change his body image.

In addition, some participants communicated a sense of negative self-worth, which contributed to instances of self-imposed isolation:

> *"I didn't think anybody really liked me, I didn't feel any importance to myself, I didn't feel, erm, I didn't really go out a lot to be honest, I only went out when I had er, when I had an appointment"* (Callum, 17-19).

By contrast, Barry reported a positive self-view:

> "*I was quite a gregarious character, I think that's it, I live life to the full. If we had nights out, I would attend, even though I was the manager, they always wanted me coming, it was good for team building and stuff like that, very good with my family, great time with my children, I had a great fantastic family holidays, probably overindulged every time I went and things like that so, yeah, I was just, I was just a big happy go lucky guy"* (Barry, 63-68).

Barry's self-description of *"I was just a big happy go lucky guy*" suggests that he viewed his weight positively associated with his identity. His account also indicates that his weight was not a barrier to living a full and meaningful life.

Being Bullied

Participants' anticipation and experience of rejection contributed to 'feeling different':

> "*I felt alone because everybody had friends and such. I didn't have many friends growing up through school and everybody that was friends, it was always the odd kids through school and certainly going into teenage years, going into the academy that whole bullying got worse so you became withdrawn*" (Adam, 7-10).

Adam associates himself as being abnormal when explaining his previous friendship groups and bullying when transitioning into adolescence. These experiences resulted in withdrawing from others, which may have maintained his sense of 'feeling abnormal'.

Bullying remained evident in adulthood, as Jeremy discussed his experience of working in a hostile environment, which featured verbal abuse from colleagues:

> "*I felt heavy and I felt as if people looked at me and thought 'oh look at that kinda thing, that heavy disgusting slob' … people that were coming into my work, can be quite hostile and abusive sometimes and they would say nasty stuff about me because I was heavy … some people would call me like a 'Fat B' or a 'Fat Slob' or 'Fatty', things like that"* (Jeremy, 10-29).

Jeremy uses highly pejorative language to describe how he and others perceived him prior to surgery. His use of *"that"* and *"thing"* suggests a sense of dehumanisation, and a perception of abnormality due to his weight.

The Impact of Perceived Masculinity

Participants had different perceptions of masculinity, and they directly compared their pre-surgical selves to these perceptions. This comparison alluded to a sense of 'feeling different'.

> "*I think, I suppose, you should be more active and be able to do things. Eh, like, I wasn't able to like, I'd be able to lift heavy objects and things but I wouldn't be able to move things around the house if I wanted to very easily myself because of my weight, and I suppose, me in my head being a man shoulda thought I'd of been able to do that"* (Jeremy, 41-45).

> *"I'm more modern in my thinking and I don't think that you know the male can really fit into one category as such, because I think everybody has got different traits, erm, so I don't pigeon box what would be defined as the ideal male, to me it's someone who will protect their family"* (Gregory, 41-44).

Interestingly, earlier in his interview, Gregory explained when he first realised his weight became difficult for him:

> *"What actually trigged it was the right decision for me* [to have surgery] *erm was that my young son at the time was 2, we were at a kids soft play area erm, his shoes were under the table, at that time he was walking and I said to him, 'can you get your shoes for me please?', because I was too fat to bend down to comfortably get them. When he went under, he slipped and he split his head open"* (Gregory, 7-11).

Gregory's account suggests that he perceived his weight as a barrier to protecting his child. In line with his perception of masculinity, this incident indicates a connection between his weight and his idea of who a man should be, or his ability to achieve that ideal.

Furthermore, masculinity was also associated with confidence:

> "*I thought that males should be fit* [pause] *fit, good looking* [pause] *full of confidence, erm, I mean I had a brother an elder brother, who was like that, he was, you know, he was full of confidence, erm* [pause] *but myself, no, you know, I thought that, you know, should be centre of attention sort of thing, not in a bad way, but y'know, my friends y'know, male friends, erm, but I never really had any of that, to be honest*" (Callum, 30-34).

Callum's numerous pauses, hesitations and repetitions reflected the lack of confidence he perceived himself to have, which contrasts with his perception of masculinity. Moreover, a prevalent perception of masculinity was the expectation for men to hide their emotions, and some participants described themselves as identifying with this perception:

> *"I think a lot of people think that men just get on wae* [with] *it, and they don't have any feelings about how they look or how they feel and stuff, and that a lot of their emotions is hidden and I, I, suppose yeah I did tend to hide a lot about my weight and how I, it actually affected me"* (Adam, 26-29).

> *"My body image did not really affect my confidence as such, er, or I was very good at putting on a show"* (Gregory, 4-5).

Similarly, both Callum and Zachary described concealing how they felt about their appearance before surgery:

> *"Ashamed, that I couldn't do anything about it, erm, I used to put on a pretence to my friends that I was okay, but in actual fact, I still wanted to be slim"* (Callum, 4-5).

> "*It totally did bother me, it bothered me all the time, but I always had to try put a face on it"* (Zachary, 20-21).

These accounts suggest that some men experience pressure to conceal their emotions to match their perceived sense of masculinity, and the unintended consequence of concealing emotions appears to maintain a sense of 'feeling different' and 'putting on' a face or show.

Relationship with Food

All participants described their relationship with food and associated emotions with eating:

> "*I couldn't even get in the car because I was so heavy, couldn't get in the car, couldn't go anywhere y'know, my personal hygiene was disgusting. I wouldn't wash as often as I should of and every time I did wash, my er, I couldn't thoroughly reach parts of my body, hence why my wife became my carer as well for my mental health, but physically as well when I was really heavy. Erm, yeah so I had, I had no quality er, life, really, no, er, no standard of life to be honest with you and I was constantly depressed y'know, er, and when I was depressed, the thing I did was eat"* (Fraser, 9-16).

Fraser highlights the emotional turmoil of not being able to care for himself and not being able to participate in activities that he previously enjoyed. This had taken a toll on his mental health, and he indicates that one way to cope with his distress was to eat, which contributed to additional weight gain. Most participants described a similar relationship with food, which served as an attempt to cope with, and yet maintained, the sense of 'feeling different'.

Seeking Change

All participants described seeking change, which included motivations for improvements in their physical health and hopes to ease the inconvenience of buying clothes.

To Save My Life

All participants reported that their primary motivation for bariatric surgery was to improve their physical health, and some participants suggested that they might not have opted for the procedure if they did not have existing health conditions:

> "*Had I not been diabetic I might not have went for the surgery, but that kinda pushed me over the edge because my diabetes was starting to affect my health … body wise I didn't see myself as large as what I was, erm it wasn't until I looked back on pictures and you realise erm, how big you actually were"* (Gregory, 14-17).

For some participants, their health conditions contributed to a heightened sense of their own mortality, which encouraged them to pursue the procedure:

> "*I think my main hope at the time for surgery was that I wouldn't need to go to bed in fear that I wouldn't wake up from sleep apnoea"* (Jeremy, 51-52).

> "*He* [Multidisciplinary Team Member] *said to me if you keep doing what you're doing and going the way you're going you'll die, basically, and that's when it kinda started being real"* (Zachary, 62-64).

Similarly, Barry stated that he only considered the procedure because doctors discovered that he had a gastro-intestinal tumour, and he explained that this could be removed through bariatric surgery:

> "*To be frank, as I said, I didn't really have any expectations, I just wanted the surgery to save my life"* (Barry, 248-249).

Inconvenience of Buying Clothes

Most participants reported hopes for easing the inconvenience of buying clothes, which seemed secondary to their aforementioned health-related motivations:

> "*The only thing I thought about was it would be very nice erm, because I like designer clothes, but erm, when I got larger it was harder to source them, erm, I liked the idea of being able to go into any shops on the high street and being able to shop"* (Gregory, 66-69).

> "*Erm, to me it wasn't about appearance. The way* [Multidisciplinary Team Member] *put it, it's about health, it's about the health issues I had, erm, so my appearance was kinda second to that, erm but obviously I did hope to lose a bit of weight, be able to buy nicer clothes, be able to do more things, erm, but it was, it was more about the health issues"* (Zachary, 70-73).

Some participants also described hopes of being 'thinner' after the procedure:

> "*I was hoping to be a lot slimmer, be able to fit into nice clothes, be able to get clothes straight off the peg, erm, just have an easier life I think, compared to what I've had previously"* (Callum, 46-48).

> "*I suppose I hoped I'd be thinner, yeah, so, er, that's the kinda aim, to feel thinner or look thinner and be able to buy nice clothes for a change"* (Jeremy, 63-64).

Callum's perception of being thinner seemed to be associated with having an easier life. In addition, Jeremy's brief remark regarding hopes of being thinner was associated with clothing, rather than body size. This echoes participants' general narrative of minimising appearance concerns, featuring more detail regarding their health-related concerns.

Ambivalence Towards Change

Participants described a sense of 'feeling normal' and a 'new lease of life' after surgery, while also acknowledging that the procedure alone was 'not enough'.

Feeling Normal

In comparison to feeling 'abnormal' before surgery, most participants described 'feeling normal' after surgery. In keeping with their stated reasons for seeking change, some participants attributed this to buying clothes:

> "*I probably like what I see better now, eh, like, especially as I've said a few times I suppose being able to buy nice clothes and look nice eh, I suppose I look like, look like every Joe going into the local supermarket or going out shopping to a shopping centre but obviously lockdown* [COVID-19] *has happened so it's not really been like that, eh but, being able to buy clothes that look like most people's clothes*" (Jeremy, 98-102).

Jeremy's use of the terms "*every Joe*" and "*most people's clothes*" communicates a sense of being like 'everybody else' in the general public and therefore feeling more 'normal'.

Participants also described being able to do things that they were not able to do prior to surgery, which provided a sense of 'feeling normal':

> "*I can do more things, I can take the dogs out, I can do loads of stuff now that I couldn't – I couldn't even put my socks on because I couldn't reach my feet, I was that big, and now I put my socks on and I think 'oh it's great I can put my socks on'* [laugh]*"* (Fraser, 32-35).

Fraser stated that his wife had been his carer and he required additional support with his physical health, and as a result he discussed feeling "*constantly depressed"* (15). Surgery provided Fraser with engagement in previously valued activities and an increase in independent self-care.

In addition, most participants described improvements to their pre-existing obesity-related physical health conditions, which contributed to a sense of feeling normal:

> "*Surgery did make a dramatic change to the diabetes because once the weight had dropped off after it, I was down to just under 16 stone, so that was like, best part of 5 stone, so the diabetes when they did the test, I went into remission"* (Barry, 89-91).
>
> "*I've lost all of my health issues, they're away. I had high blood pressure, I had sleep apnoea, I had er, diabetes, asthma, they're all away*" (Zachary, 77-78).

A New Lease of Life

Participants described experiencing a 'new lease of life', which had a positive impact on their physical and psychological well-being:

> "*I had feelings I never felt before, and I didn't realise that maybe I had been unhappy in the past, and I know a lot of er, fat people do have er, confident issues and self body image, er uncomfortable with it, I didn't feel that, but I experience the other side of it where I was so happy, how I was doing and how great I felt and, to be honest with you, I probably felt better than I had in about 20 year and that's crazy to think about, I didn't realise how, how, er, unhealthy I was until I had that new lease of life*" (Gregory, 115-121).

In addition to Gregory's earlier statement "*body image did not really affect my confidence as such, er, or I was very good at putting on a show*" (4-5), this excerpt suggests that perhaps Gregory did not fully recognise how negatively he felt about himself prior to surgery. In retrospect, he describes a dramatic change after surgery, where he recognises a significant improvement in his overall psychological well-being. "*I had feelings I never felt before*" indicates that Gregory did not truly feel "*great*" about himself before surgery, illustrating its potential to be transformative.

Similarly, Fraser describes the benefits of surgery and the impact this has had on how he feels about himself:

> "*The old Fraser has gone, I'm a new creation kinda thing, I've got rid of all my baggage y'know, all the things that were weighing me down. This is the new and improved me"* (Fraser, 267-269).

Fraser's use of "*all the things that were weighing me down*" suggests that his experience of obesity, or 'excess weight', prior to surgery had an oppressive impact on both his physical and psychological well-being, and again illustrates surgery's potential to provide a new lease of life and sense of self.

Surgery Is Not Enough

All participants alluded to a sense that surgery was not enough to completely transform their negative self-view. This included the impact of loose skin as a result of surgery:

> Participant: "*I'm still not complete, and I, and I know God willing* [pause] *that it'll, the er, procedure will make me complete and I'll become completed, a completed work, a finished work and when that happens, y'know, and I can, I can see my future being brighter, y'know, without so much baggage without so much emotional stress on me and for how I should look or appear to people, or, how, how they see me and how I, y'know, it's hard to explain*"
>
> Interviewer: "*What would it take to achieve that completion?*"
>
> Participant: "*Still losing the weight, skin taken away, so I can look in the mirror, and the person looking back at me is happy … I can't look at myself in the mirror even still and feel happy*" (Fraser, 291-302).

Comparing Fraser's earlier statement of "*I'm a new creation"* to his repetition of not being "*a completed work*" highlights a sense of ambivalence regarding the changes to his body after surgery. He clarified his perception that losing further weight and removing excess skin would allow him to achieve the completion he is seeking, and perceived that this will improve his psychological well-being.

In comparison, some participants explained that loose skin was less troublesome for them:

> "*People will only see what I want them to see, so if I'm wearing my nice clothes and that, it's great, and like I've said before I've got a wee bit of baggy skin, but I mean it doesn't bother me because anybody that's going to be seeing that will be close enough to me that it's not going, it's not going to bother, er, so I mean I'm absolutely fine with everything*" (Zachary, 137-141).

Zachary explained that he is less 'bothered' about excess skin because he is able to conceal it with 'nice' clothes, which have become more accessible to him since experiencing significant weight loss. In addition, he previously emphasised that his main motivation for surgery was for his physical health, which might explain why excess skin is less troublesome for him.

Furthermore, most participants described weight re-gain after surgery, indicating that surgery alone was not enough to sustain long-term weight loss. For some participants, this was a highly emotive area of discussion:

> "*I'm also angry at myself for putting the weight back on and when people mention it to me, erm, I try to shrug it off, but it does hurt because I know they're just, they're saying, 'y'know that sugery was a waste of money eh', you know, 'you've had that opportunity and you've wasted it', and it hurts because it's true, you understand?"* (Gregory, 167-174).

Gregory's use of "*I try to shrug it off*" reinforces his earlier statement of "*I was very good at putting on a show*" (5), illustrating how Gregory conceals his feelings about his weight loss journey, in response to the criticism from others he described.

Similarly, Callum explained how he feels about his current appearance after regaining weight:

> "*To be honest with you, I'm not, I'm not that happy with it* [appearance]*, because I know I could have done better, erm I feel, I feel as though, like I say I've let the side down, I've let the people down that tried to help me"* (Callum, 97-99).

Callum then explained:

> "*Sometimes you feel* [pause] *you should be able to achieve, as a man you should, you're supposed to be the dominant person if you like, so you should be able to achieve your goals*" (Callum, 104-106).

Both Gregory and Callum allude to a sense of regret over perceiving surgery as a "*wasted opportunity*" due to regaining weight, which has been met with criticism from others and self-critical feelings of 'letting people down'. In addition, Callum provides insight into his view of masculinity. He directly contrasts his weight regain to 'achievement' and 'dominance', which suggests that he perceives himself as not meeting those standards.

In comparison, Barry acknowledged he had re-gained weight after surgery; however, his account was less emotive in comparison. He expressed that he might look to lose weight:

> "*I probably need to make an effort because in a year, two years, my eldest daughter is getting married so I need to try and get back in and get myself a bit fitter and lose a bit of weight to get the kilt on and walk her down the aisle and stuff like that"* (Barry, 279-283).

Barry's views on losing additional weight seemed more ambivalent and focused on a specific live event. Although he speaks to wanting to fit into his kilt, he previously explained that body image was not a motivator for losing weight: "*but as body image, that wasn't a thing, it was never, it's went back up again"* (56-57). This excerpt is in line with other participants associating weight loss with fitting clothes, rather than directly commenting on their body image.

In contrast with earlier descriptions of their problematic relationship with food, participants described difficulties adjusting to long-term dietary changes after surgery, which was indicative of surgery not being enough:

> "*It's not always easy, I still tend to graze a wee bit and pick some wrong foods and my weight has went up slightly"* (Adam, 104-105).

> *"I was never vain, and you can see I went back to big again, not as big as I was; I'm just under 19 stone now, so I'm probably just 3 stone under what I was. The difference now is, it's not food that's made me big, it's beer. I'm a beer monster"* (Barry, 32-34).

Barry's description emphasises the difficulties adjusting to long-term dietary changes post-surgery and, given participants' accounts of their relationship with food before surgery, findings show that surgery was not enough on its own to sustain weight loss. Indeed, participants described bariatric surgery as being a method or tool, rather than a complete cure for obesity or guarantee of ongoing weight loss:

> "*My advice to people would is to think long and hard about it. Erm, to understand that it's not just erm, a magic pill, it's not a cure to obesity. Erm, it's a tool. Erm, don't get me wrong, it's a fantastic tool because it gives you that jump start that you need, erm, but you need to psychologically prepare for it"* (Gregory, 201-205).

Gregory communicates that one perception of bariatric surgery is the procedure being a "*magic pill*" that 'cures' obesity, and he suggests that a lot of psychological preparation is required for people to adjust to life after the procedure.

While acknowledging that surgery is a tool, most participants reflected that surgery was not enough. Some indicated that psychological support is warranted to support long-term adjustment after surgery:

> "*Psychology follow up post-surgery, kinda lacked a wee bit, and I know we, if we felt we needed to get in touch if things were quite bad, but personally, I thought that we were ill prepared for how quick weight would come off, and that whole trying to get your head round body image and the loose skin … so it was probably like picking up with a psychologist again might be a benefit, be a help to understand things a wee bit better"* (Adam, 173-182).

Adam communicates difficulties adjusting to the changes in his body, which appears to be having an impact on his ability to associate his thinner body with his identity. There is a perception that further psychological support adjusting after surgery may help address these difficulties. Other participants also suggested further psychological support would be worthwhile. For example, Zachary explained during his interview that his newfound confidence, as a result of surgery, had contributed to his marriage breaking down. He proposed that further support to help psychologically prepare families would encourage the adjustment period after surgery:

> "*There should be more information for a partner, for a person getting bariatric surgery because the changes aren't just happening to me, the changes are obviously going to affect them as well … I think they should even be invited to the PIPP classes [1]if they want to go, erm, cause ultimately, like I've just said, the changes are going to be affecting them as well, erm, and it's, it's all purely in the head with them as well … if she had maybe been psychologically prepared a wee bit more for what's going to happen to me, she woulda been able to accept it a bit more"* (Zachary, 201-209).

[1] The Pre-Operative Information Patient Programme (PIPP) is an educational programme delivered by a multidisciplinary team within the health board. The programme aim is to prepare patients for surgery by providing information about the weight loss procedure, and lifestyle changes required post-surgery.

Discussion

Interpretative Phenomenological Analysis (IPA) generated three superordinate themes and several subordinate themes exploring retrospective experiences of bariatric surgery and body image in cis-men.

Feeling Abnormal

The majority of participants described feeling abnormal before surgery, underpinned by a negative self-view. Their self-view was often compounded by earlier experiences of bullying and maintained by self-imposed restriction. These findings are consistent with previous research which indicated that men who had bariatric surgery were likely to recall experiences of being bullied and instances of social withdrawal in relation to their weight (Groven et al., 2015). However, the present study explored a contrasting narrative with one participant who described a positive self-view, did not report concerns about body image, and emphasised physical health motivations for surgery. As the eldest participant with the longest duration since surgery, these factors may have contributed to differences in his account. A recent paper investigating men's reflections on their body image at different life stages indicated that men over 45 report body acceptance and were not preoccupied with what their body looks like (Malik et al., 2021).

Feeling abnormal included participants feeling unable to conform to masculine ideals, due to perceiving their pre-surgical weight as a barrier to activity, confidence, and for one participant, feeling unable to protect their child. This finding might be understood in the context of hegemonic masculinity (Connell, 1995), which suggests masculine ideals are characterised by power, success, strength, and self-sufficiency. In addition, research highlights that 'masculine' body ideals are conceptualised as being healthy and well-functioning in order to fulfil normative roles (McCreary et al., 2005).

Some participants reported concealing emotions to conform to masculine ideals, which appeared to have perpetuated a sense of feeling abnormal. This may also be understood in the context of theoretical perspectives of masculinity. For instance, a proposed relational theory of men's health, from a social constructionist and feminist perspective, highlights that men may suppress and refuse weakness and vulnerability in a bid to appear powerful and less vulnerable (Courtenay, 2000).

Furthermore, feeling abnormal was also associated with participants' relationship with food, which is consistent with previous research that indicates the complexity of this

within the bariatric population (Fischer et al., 2007). Indeed, participants' relationship with food did not entirely change post-surgery, and this was associated with weight re-gain. Participants acknowledged that surgery was not enough to address this, which is important for services to consider given the prevalence, and impact of weight-regain after surgery (Velapati et al., 2018). This highlights the need for psychological support for individuals, which may include intervention to address vulnerabilities that influence complex eating behaviour.

Seeking Change

Most participants emphasised seeking surgery primarily for their physical health, and some described healthcare professionals emphasising the importance of surgery for their health. This emphasis may have primed participants to discuss health-related concerns, and therefore potentially influencing their own opinion. In addition, most participants communicated that they hoped buying clothes would be a more convenient process for them, rather than directly referring to their own appearance. This is consistent with previous literature that suggests men appear to minimise concerns in relation to body image (Edward et al., 2016) and the cosmetic benefits of surgical weight loss interventions (Bocchieri et al., 2002; Brantley et al., 2014).

Ambivalence Towards Change

In contrast to pre-surgery experiences, participants reported 'feeling normal' following surgery, which was associated with buying regular high street clothes and overall improvements in physical health. However, participants also described adjustment difficulties after surgery, which involved their existing relationship with food, weight regain and psychological factors. Participants emphasised that surgery was a tool for weight loss, and not a complete cure for obesity and associated psychological vulnerabilities. This was made clear with a desire for increased psychological support for themselves and their wider support system. Despite National Institute for Health and Care Excellence (2014) standard CG189 recommending psychological support for up to 2 years post-bariatric surgery, research demonstrates that there is a general lack of postoperative psychological follow-up (Jumbe et al., 2017), which might be due to lack of resource at a local and national level.

Implications for Services

The findings highlight that men undergoing bariatric surgery may express concerns with body image differently compared to women, who are more broadly represented

within existing literature. The study also highlighted the importance of psychological factors that may contribute to adjustment difficulties post-surgery. These findings can inform service provision for weight management services, both highlighting risk factors for weight-regain and impaired adjustment after surgery, and the requirement for additional psychological support. An existing systematic review indicates good evidence with this population for cognitive behavioural therapy on both eating behaviours and psychological functioning (David et al., 2020), which suggests that participants could warrant and benefit from this provision.

Strengths and Limitations

Findings are based on the reflections of seven Caucasian men who received a sleeve gastrectomy within a public healthcare context in Scotland, which has aided an in-depth exploration of their individual experiences. While obtaining a relatively homogenous sample, the findings from this study may not be transferable to non-white (non-'Caucasian') ethnic groups. For instance, research highlights ethnic differences in bariatric surgery in terms of weight loss (Admiraal et al., 2012), and ethnic differences in male body image and body dissatisfaction (Brennan et al., 2013; Markova & Azocar, 2020).

Furthermore, the current sample was largely represented by heterosexual men. Previous research indicates that sexual minority men are increasingly vulnerable to body image concerns (Boroughs et al., 2010), however this current study has demonstrated insight into the commonalities of both homosexual and heterosexual men's experiences.

Remote interviews have both positive and negative implications. The experiences of those with access to technology are privileged by the research protocol. In addition, it is uncertain whether the remote nature of the study had an impact on men's ability to feel able to discuss body-image related concerns. Although Jenner and Myers (2019) indicate that interviews in private settings (in-person or remotely) result in more sharing of personal experiences, research also indicates that remote interviews can have challenges to privacy (Weller, 2017).

Future Research

Future research using face-to-face interviews could aid with aforementioned representation issues within the literature. Despite attempts to offer this flexibility

originally, the author was restricted to remote interviews in light of the COVID-19 pandemic and resultant restrictions.

Given the contrasting experiences of the eldest participant with the longest duration since surgery, future research could explore further how age and adjustment over time influences outcomes. Although wider research has started to look at how male body image differs across different life stages (Malik et al., 2021), this has yet to be explored further in the male bariatric population. Furthermore, research has identified differences in male body image in ethnic minority (Brennan et al., 2013; Markova & Azocar, 2020) and sexual minority groups (Boroughs et al., 2010). However, it remains uncertain how this translates to the male bariatric population, which would be a helpful area of further research.

The desire for psychological support post-surgery prevalent in the current study highlights the need and the necessity for further research into psychological intervention in the bariatric population to influence the provision of routine psychological support. This would allow a greater understanding of the psychological complexity of bariatric surgery for individuals and inform a multidisciplinary approach to improving psychological adjustment post-surgery.

Conclusion

The findings illustrate the psychological complexity of bariatric surgery and subsequent adjustment. In addition, the findings also highlight how individual perceptions of masculinity may influence reasons for surgery and adjustment thereafter. Participants highlight that psychological support is warranted and should be offered post-surgery, which may facilitate an understanding of their difficulties and support the adjustments required to maintain weight loss and enhance psychological well-being.

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Appendices

Appendix A. Author Guidelines for Social Science & Medicine

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J. Thrasher, University of South Carolina, Columbia, South Carolina, United States of America
K.M. Walsemann, University of South Carolina, Columbia, South Carolina, United States of America
Y. Wang, Ball State University, Department of Nutrition and Health Science, Muncie, Indiana, United States of America
M. Warin, The University of Adelaide, Adelaide, Australia

S.S. Willen, University of Connecticut, Storrs, Connecticut, United States of America
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In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).

Mendeley Data

This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. During the submission process, after uploading your manuscript, you will have the opportunity to upload your relevant datasets directly to *Mendeley Data*. The datasets will be listed and directly accessible to readers next to your published article online.

For more information, visit the Mendeley Data for journals page.

Data statement

To foster transparency, we encourage you to state the availability of your data in your submission. This may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you will have the opportunity to indicate why during the submission process, for example by stating that the research data is confidential. The statement will appear with your published article on ScienceDirect. For more information, visit the Data Statement page.

AFTER ACCEPTANCE

Online proof correction

To ensure a fast publication process of the article, we kindly ask authors to provide us with their proof corrections within two days. Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors.
If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.

We will do everything possible to get your article published quickly and accurately. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. It is important to ensure that all corrections are sent back to us in one communication. Please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.

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AUTHOR INQUIRIES

Visit the Elsevier Support Center to find the answers you need. Here you will find everything from Frequently Asked Questions to ways to get in touch.
You can also check the status of your submitted article or find out when your accepted article will be published.

Appendix B. Full Search Strategy

Supplementary Table 1a. *Full Search Strategy (OVID: MEDLINE)*

Database	Limiter	MeSH Heading(s)	Search Terms
MEDLINE	Weight Loss	**S1** Bariatric Surgery OR Gastric Bypass OR Gastroplasty OR Jujenoileal Bypass OR Gastroenterostomy OR Gastrectomy OR Weight Loss	**S2**(((bariatric adj3 (procedure* or surger* or metabolic)) OR stomach stapl* OR adjustable gastric band OR bilopancreatic diversion OR gastric bypass OR gastro* OR gastrectomy OR Gastroplasty OR Jejunoileal Bypass OR Weight Loss)))
	Body Contouring	**S3** Body Contouring OR Abdominplasty OR Lipectomy OR Mammaplasty OR Plastic Surgery	**S4** (((body contour* adj3 (Procedure* OR surg*)) OR mastroplexy OR breast lift OR breast reconstruction OR mammaplasty OR upper body lift* OR lower body lift OR thigh lift* OR abdomino* OR plastic surg* OR lipectomy OR (reconstructive adj3 (procedure* or surg* or cosmetic)))
	Qualitative Research	**S5** Qualitative Research OR Grounded Theory OR Interview+ OR Personal Narrative+ OR Surveys and Questionnaires OR Focus Groups	**S6** (((qualitative OR ethnograph* OR grounded theory OR naturalistic* OR IPA OR phenomenolog* OR experience* OR narrative OR interview* OR content analysis OR focus group* OR questionnaire* OR survey* OR thematic analysis)))
	Outcome	**S7** Patient Satisfaction OR Quality of Life OR Esthetics+ OR Body Image OR Body Dissatisfaction	**S8** (((life change* OR body dissatisfaction OR body esteem OR (body adj3 image) OR satisfaction OR quality of life OR QoL OR psycholog* OR (psycholog* adj3 (well-being*, well?being OR impact) OR esthetic* OR aesthetic*)))
Final Coding Strategy		**(S1 OR S2) AND (S3 OR S4) AND (S5 OR S6) AND (S7 OR S8)**	

Supplementary Table 1b. *Full Search Strategy (OVID: EMBASE)*

Database	Limiter	MeSH Headings (MeSH)	Search Terms
EMBASE	Weight Loss	**S1** Bariatric Surgery+ OR Gastroenterostomy OR Gastric Bypass Surgery+ OR Gastroplasty OR Jejunoileal ByPass+ OR Gastrectomy OR Body Weight Loss +	**S2**(((bariatric adj3 (procedure* or surger* or metabolic)) OR stomach stapl* OR adjustable gastric band OR bilopancreatic diversion OR gastric bypass OR gastro* OR gastrectomy OR Gastroplasty OR Jejunoileal Bypass OR Weight Loss)))
	Body Contouring	**S3** Body Contouring+ OR Abdominoplasty OR Plastic Surgery OR Lipectomy OR Breast Reconstruction+	**S4** (((body contour* adj3 (Procedure* OR surg*)) OR mastroplexy OR breast lift OR breast reconstruction OR mammaplasty OR upper body lift* OR lower body lift OR thigh lift* OR abdomino* OR plastic surg* OR lipectomy OR (reconstructive adj3 (procedure* or surg* or cosmetic)))
	Qualitative Research	**S5** Qualitative Research+ OR Interview OR Semi Structured Interview OR Thematic Analysis OR Content Analysis OR Questionnaire OR Phenomenology OR Ethnography OR Naturalistic Inquiry	**S6** (((qualitative OR ethnograph* OR grounded theory OR naturalistic* OR IPA OR phenomenolog* OR experience* OR narrative OR interview* OR content analysis OR focus group* OR questionnaire* OR survey* OR thematic analysis)))
	Outcome	**S7** Patient Satisfaction OR Quality of Life OR Psychological Well-Being+ OR Esthetics+ OR Body Image OR Body Dissatisfaction	**S8** (((life change* OR body dissatisfaction OR body esteem OR (body adj3 image) OR satisfaction OR quality of life OR QoL OR psycholog* OR (psycholog* adj3 (well-being*, well?being OR impact) OR esthetic* OR aesthetic*)))
Final Coding Strategy		**(S1 OR S2) AND (S3 OR S4) AND (S5 OR S6) AND (S7 OR S8)**	

Supplementary Table 1c. *Full Search Strategy* (EBSCO: CINAHL)

Database	Limiter	Main Headings (MH)	Search Terms
CINAHL	Weight Loss	**S1** (MH "Bariatric Surgery+") OR (MH "Gastroenterostomy") OR (MH "Gastrectomy") OR (MH "Jejunoileal Bypass") OR (MH "Weight Loss")	**S2** (((bariatric N3 (procedure* or surger* or metabolic)) OR stomach stapl* OR "adjustable gastric band" OR "bilopancreatic diversion" OR "gastric bypass" OR "gastro*" OR "gastrectomy" OR "Gastroplasty" OR "Jejunoileal Bypass" OR "Weight Loss")))
	Body Contouring	**S3** (MH "Body Contouring") OR (MH "Abdominoplasty") OR (MH "Lipectomy") OR (MH "Surgery, Plastic") OR (MH "Breast Reconstruction")	**S4** (((body contour* N3 (Procedure* OR surg*)) OR "mastroplexy" OR "breast lift" OR "breast reconstruction" OR "mammaplasty" OR "upper body lift*" OR "lower body lift" OR "thigh lift*" OR "abdomino*" OR "plastic surg*" OR "lipectomy" OR ("reconstructive N3 (procedure* or surg* or cosmetic)))
	Qualitative Research	**S5** (MH "Qualitative Studies") OR (MH "Ethnographic Research") OR (MH "Ethnological Research") OR (MH "Grounded Theory") OR (MH "Naturalistic Inquiry") OR (MH "Phenomenological Research") OR (MH "Narratives") OR (MH "Interviews+") OR (MH "Thematic Analysis") OR (MH "Content Analysis") OR (MH "Focus Groups") OR (MH "Questionnaires+")	**S6** (("qualitative" OR "ethnograph*" OR "grounded theory" OR "naturalistic*" OR "IPA" OR "89sychology89gy*" OR "experience*" OR "narrative" OR "interview*" OR "content analysis" OR "focus group*" OR "questionnaire*" OR "survey*" OR "thematic analysis")))
	Outcome	**S7** (MH "Patient Satisfaction") OR (MH "Quality of Life") OR (MH "Life Change Events") OR (MH "Psychological Well-Being") OR (MH "Esthetics+") OR (MH "Body Image+")	**S8** ((("life change*" OR "body dissatisfaction" OR "body esteem" OR "(body N3 image)" OR "satisfaction" OR "quality of life" OR "QoL" OR" 89sychology* OR (89sychology* N3 (well-being*, well?being OR impact) OR esthetic* OR aesthetic*)))
Final Coding Strategy		**(S1 OR S2) AND (S3 OR S4) AND (S5 OR S6) AND (S7 OR S8)**	

Supplementary Table 1d. *Full Search Strategy* (EBSCO: PsychINFO)

Database	Limiter	Main Headings (DE)	Search Terms
PsychINFO	Weight Loss	**S1** DE Bariatric Surgery OR DE Weight Loss	**S2** (((bariatric N3 (procedure* or surger* or metabolic)) OR stomach stapl* OR “adjustable gastric band” OR “bilopancreatic diversion” OR “gastric bypass” OR “gastro*” OR “gastrectomy” OR “Gastroplasty” OR “Jejunoileal Bypass” OR "Weight Loss")))
	Body Contouring	**S3** DE Plastic Surgery	**S4** (((body contour* N3 (Procedure* OR surg*)) OR “mastroplexy” OR “breast lift” OR “breast reconstruction” OR “mammaplasty” OR “upper body lift*” OR “lower body lift” OR “thigh lift*” OR “abdomino*” OR “plastic surg*” OR “lipectomy” OR (“reconstructive N3 (procedure* or surg* or cosmetic)))
	Qualitative Research	**S5** DE Qualitative Methods OR DE Focus Group OR DE Grounded Theory OR DE Interpretative Phenomenological Analysis OR DE Narrative Analysis OR DE Semi-Structured Interview OR DE Thematic Analysis OR DE Content Analysis	**S6** (((“qualitative" OR "ethnograph*" OR "grounded theory" OR "naturalistic*" OR "IPA" OR "phenomenolog*" OR "experience*" OR "narrative" OR "interview*" OR "content analysis" OR "focus group*" OR "questionnaire*" OR “survey*” OR "thematic analysis")))
	Outcome	**S7** DE Client Satisfaction OR DE Quality of Life OR DE Life Changes OR DE Well Being OR DE Aesthetics OR Body Image OR DE Body Esteem	**S8** (((“life change*" OR "body dissatisfaction" OR “body esteem” OR “(body N3 image)” OR “satisfaction” OR “quality of life” OR “QoL” OR” psycholog* OR (psycholog* N3 (well-being*, well?being OR impact) OR esthetic* OR aesthetic*)))
Final Coding Strategy		**(S1 OR S2) AND (S3 OR S4) AND (S5 OR S6) AND (S7 OR S8)**	

Appendix C. Stages of Meta-Ethnography (Noblit & Hare, 1988)

Supplementary Table 2. *Stages of Meta-Ethnography (Noblit & Hare, 1988)*

Stage	Description
1. Getting started	Determine the research question
2. Deciding what is relevant to the initial interest	Defining the focus of the synthesis Locating relevant studies Decisions to include studies Quality appraisal
3. Reading the studies	Becoming familiar with the content and detail Begin to extract metaphors or emerging themes
4. Determining how the studies are related	Create a list of themes and metaphors Juxtaposition of above Determine how themes are related Reduce themes to relevant categories
5. Translating studies into one another	Arrange papers chronologically Compare paper 1 with paper 2, and the synthesis of these papers with paper 3 and so on
6. Synthesising translations	Reciprocal synthesis leading to a line of argument synthesis
7. Expressing the synthesis	Presentation of results Publication of findings

Appendix D. Ethical Approval Letter December 2020

NHS
Health Research Authority

North East - Newcastle & North Tyneside 1 Research Ethics Committee
NHSBT Newcastle Blood Donor Centre
Holland Drive
Newcastle upon Tyne
NE2 4NQ

Telephone: 02071048103

14 December 2020

Dr Naomi White
Room 18
Mental Health & Wellbeing Admin Building
1st Floor, Gartnavel Royal Hospital
G120XH

Dear Dr White,

Study title:	**Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context**
REC reference:	**20/NE/0281**
IRAS project ID:	**285223**

Thank you for responding to the Proportionate Review Sub-Committee's request for changes to the documentation for the above study.

The revised documentation has been reviewed and approved on behalf of the PR sub-committee.

Confirmation of ethical opinion

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

Conditions of the favourable opinion

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

Confirmation of Capacity and Capability (in England, Northern Ireland and Wales) or NHS management permission (in Scotland) should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements. Each NHS organisation must confirm through the signing of agreements and/or other documents that it has given

permission for the research to proceed (except where explicitly specified otherwise).

Guidance on applying for HRA and HCRW Approval (England and Wales)/ NHS permission for research is available in the Integrated Research Application System.

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

Sponsors are not required to notify the Committee of management permissions from host organisations.

Registration of Clinical Trials

It is a condition of the REC favourable opinion that **all clinical trials are registered** on a publicly accessible database. For this purpose, 'clinical trials' are defined as the first four project categories in IRAS project filter question 2. Registration is a legal requirement for clinical trials of investigational medicinal products (CTIMPs), except for phase I trials in healthy volunteers (these must still register as a condition of the REC favourable opinion).

Registration should take place as early as possible and within six weeks of recruiting the first research participant at the latest. Failure to register is a breach of these approval conditions, unless a deferral has been agreed by or on behalf of the Research Ethics Committee (see here for more information on requesting a deferral:
https://www.hra.nhs.uk/planning-and-improving-research/research-planning/research-registration-research-project-identifiers/

As set out in the UK Policy Framework, research sponsors are responsible for making information about research publicly available before it starts e.g. by registering the research project on a publicly accessible register. Further guidance on registration is available at:
https://www.hra.nhs.uk/planning-and-improving-research/research-planning/transparency-responsibilities/

You should notify the REC of the registration details. We routinely audit applications for compliance with these conditions.

Publication of Your Research Summary

We will publish your research summary for the above study on the research summaries section of our website, together with your contact details, no earlier than three months from the date of this favourable opinion letter.

Should you wish to provide a substitute contact point, make a request to defer, or require further information, please visit:
https://www.hra.nhs.uk/planning-and-improving-research/application-summaries/research-summaries/

N.B. If your study is related to COVID-19 we will aim to publish your research summary within 3 days rather than three months.

During this public health emergency, it is vital that everyone can promptly identify all relevant research related to COVID-19 that is taking place globally. If you haven't already done so,

please register your study on a public registry as soon as possible and provide the HRA with the registration detail, which will be posted alongside other information relating to your project. We are also asking sponsors not to request deferral of publication of research summary for any projects relating to COVID-19. In addition, to facilitate finding and extracting studies related to COVID-19 from public databases, please enter the WHO official acronym for the coronavirus disease (COVID-19) in the full title of your study. Approved COVID-19 studies can be found at: https://www.hra.nhs.uk/covid-19-research/approved-covid-19-research/

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

After ethical review: Reporting requirements

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

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study, including early termination of the study
- Final report

The latest guidance on these topics can be found at https://www.hra.nhs.uk/approvals-amendments/managing-your-approval/.

Ethical review of research sites

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

Approved documents

The documents reviewed and approved by the Committee are:

Document	*Version*	*Date*
Copies of materials calling attention of potential participants to the research [Facebook Advertisement]	5	22 October 2020
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Sponsor Insurance]	1	15 July 2020
GP/consultant information sheets or letters [Letter to GP]	2	22 October 2020
Interview schedules or topic guides for participants [Interview Schedule]	4	22 September 2020
IRAS Application Form [IRAS_Form_24112020]		24 November 2020
IRAS Checklist XML [Checklist_24112020]		24 November 2020
Letters of invitation to participant [Letter to Potential Participants]	3	22 October 2020
Non-validated questionnaire [Demographic Information]	4	21 September 2020

Organisation Information Document [285223 OID]	1	26 October 2020
Other [REC Provisional Opinion Response]	1	09 December 2020
Participant consent form [Consent Form]	3	09 December 2020
Participant information sheet (PIS) [Participant Information Sheet]	6	09 December 2020
Research protocol or project proposal [MRP Proposal]	8	09 December 2020
Schedule of Events or SoECAT [Schedule of Events]	2	23 November 2020
Summary CV for Chief Investigator (CI) [N White CV 2020]	1	21 October 2020
Summary CV for student [D Ruth CV]	1	22 October 2020

Statement of compliance

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

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website:
http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/

HRA Learning

We are pleased to welcome researchers and research staff to our HRA Learning Events and online learning opportunities– see details at:
https://www.hra.nhs.uk/planning-and-improving-research/learning/

IRAS project ID: 285223 **Please quote this number on all correspondence**

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

Yours sincerely,
PP

Dr Philip Ryan
Chair

Email: newcastlenorthtyneside1.rec@hra.nhs.uk

Lead Nation: Scotland- nhsg.NRSPCC@nhs.net

North East - Newcastle & North Tyneside 1 Research Ethics Committee

Attendance at Chair's Actions meeting held via correspondence.

Committee Members:

Name	*Profession*	*Present*	*Notes*
Dr Philip Ryan	Retired Occupational Health Physician	Yes	

Also in attendance:

Name	*Position (or reason for attending)*
Miss Yasmin King	Approvals Administrator

Appendix E. NHS Ayrshire & Arran R&D Approval January 2021

Research & Development
56a Lister Street
University Hospital Crosshouse
Kilmarnock
KA2 0BB

Date 27 January 2021
Your Ref
Our Ref CM/KLB/CI R&D No 2020AA081

Dr Naomi White
University of Glasgow
Room 18
Mental Health & Wellbeing Admin Building
1st Floor, Gartnavel Royal Hospital
G12 0XH

Enquiries to Karen Bell
Extension 25850
Direct line 01563 825850
Fax 01563 825806
Email Karen.Bell2@aapct.scot.nhs.uk

Dear Dr White

Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context

I confirm that NHS Ayrshire and Arran have reviewed the undernoted documents and grant R&D Management approval for the above study.

Documents received:

Document	Version	Date
Organisation Information Document	3.0	27.01.2021
IRAS	5.17	24.11.2020
Protocol	9.0	22.12.2020
Facebook Advertisement	6.0	13.01.2021
Letter to GP	2.0	22.10.2020
Interview Schedule	4.0	22.09.2020
Letter to Potential Participants	4.0	13.01.2021
Demographic Information	4.0	21.09.2020
Consent Form	4.0	22.12.2020
Participant Information Sheet	7.0	22.12.2020
Schedule of Events	2.0	-

The terms of approval state that the investigator authorised to undertake this study within NHS Ayrshire & Arran is: -

- Daniel Ruth, University of Glasgow

The sponsors for this study are University of Glasgow.

This approval letter is valid until 30 November 2021.

Regular reports of the study require to be submitted. Your first report should be submitted to Dr K Bell, Research & Development Manager in 12 months time and subsequently at yearly intervals until the work is completed.

Please note that as a requirement of this type of study your name, designation, work address, work telephone number, work e-mail address, work related qualifications and whole time equivalent will be held on the Scottish National Research Database so that NHS R&D staff in Scotland can access this information for purposes related to project management and report monitoring.

In addition approval is granted subject to the following conditions: -

- All research activity must comply with the standards detailed in the UK Policy Framework for Health and Social Care Research http://beta.hra.nhs.uk/planning-and-improving-research/policies-standards-legislation/uk-policy-framework-health-social-care-research and appropriate statutory legislation. It is your responsibility to ensure that you are familiar with these, however please do not hesitate to seek further advice if you are unsure.

- Recruitment figures must be submitted to R&D on a monthly basis. If recruitment figures are not received timeously you will be contacted by a member of the R&D team to provide this data.

- You are required to comply with Good Clinical Practice (ICH-GCP guidelines may be found at www.ich.org/LOB/media/MEDIA482.pdf), Ethics Guidelines, Health & Safety Act 1999, General Data Protection Regulation (GDPR) and Data Protection Act 2018.

- If any amendments are to be made to the study protocol and or the Research Team the Researcher must seek Ethical and Management Approval for the changes before they can be implemented.

- The Researcher and NHS Ayrshire and Arran must permit and assist with any monitoring, auditing or inspection of the project by the relevant authorities.

- The NHS Ayrshire and Arran Complaints Department should be informed if any complaints arise regarding the project and the R&D Department must be copied into this correspondence.

- The outcome and lessons learnt from complaints must be communicated to funders, sponsors and other partners associated with the project.

- As custodian of the information collated during this research project you are responsible at all times for ensuring the security of all personal information collated in line with NHS Scotland policies on information assurance and security, until the secure destruction of these data. The retention time periods for such data should comply with the requirements of the Scottish Government Records Management: NHS Code Of Practice. Under no circumstances should personal data be stored on any unencrypted

removable media e.g. laptop, USB or mobile device (for further information and guidance please contact the Information Governance Team based at University Hospital Crosshouse 01563 825831 or 826813).

If I can be of any further assistance please do not hesitate to contact me. On behalf of the department, I wish you every success with the project.

Yours sincerely

Dr Crawford McGuffie
Medical Director

c.c. Emma-Jane Gault, University of Glasgow (sponsor contact)
Lesley Douglas, Finance, Ailsa Hospital
Information Governance, NHS Ayrshire & Arran
Daniel Ruth, University of Glasgow

Appendix F. Substantial Amendment Approval April 2021

NHS
Health Research Authority

North East - Newcastle & North Tyneside 1 Research Ethics Committee

NHSBT Newcastle Blood Donor Centre
Holland Drive
Newcastle upon Tyne
NE2 4NQ

26 April 2021

Mr Daniel Ruth
2-2 58 Ferry Road
Glasgow
G38QD

Dear Mr Ruth

Study title:	**Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context**
REC reference:	**20/NE/0281**
Amendment number:	**AM02 31032021**
Amendment date:	**31 March 2021**
IRAS project ID:	285223

The above amendment was reviewed by the Sub-Committee in correspondence.

Ethical opinion

The members of the Committee taking part in the review gave a favourable ethical opinion of the amendment on the basis described in the notice of amendment form and supporting documentation.

Approved documents

The documents reviewed and approved at the meeting were:

Document	*Version*	*Date*
Completed Amendment Tool [Amendment Tool]	V1.4	31 March 2021
Copies of materials calling attention of potential participants to the research [Facebook Advertisement]	7	17 March 2021
Organisation Information Document [Organisation Information Document]	4	31 March 2021
Participant consent form [Consent Form]	5	31 March 2021
Participant information sheet (PIS) [Participant Information Sheet]	8	17 March 2021
Research protocol or project proposal [Proposal]	10	17 March 2021
Schedule of Events or SoECAT [Schedule of Events]	3	17 March 2021

Membership of the Committee

The members of the Committee who took part in the review are listed on the attached sheet.

Working with NHS Care Organisations

Sponsors should ensure that they notify the R&D office for the relevant NHS care organisation of this amendment in line with the terms detailed in the categorisation email issued by the lead nation for the study.

Amendments related to COVID-19

We will update your research summary for the above study on the research summaries section of our website. During this public health emergency, it is vital that everyone can promptly identify all relevant research related to COVID-19 that is taking place globally. If you have not already done so, please register your study on a public registry as soon as possible and provide the HRA with the registration detail, which will be posted alongside other information relating to your project.

Statement of compliance

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

HRA Learning

We are pleased to welcome researchers and research staff to our HRA Learning Events and online learning opportunities– see details at: https://www.hra.nhs.uk/planning-and-improving-research/learning/

IRAS Project ID - 285223:	Please quote this number on all correspondence

Yours sincerely

pp
Frank Macdonald
Approvals Administrator

Mr Paddy Stevenson
Chair

E-mail: newcastlenorthtyneside1.rec@hra.nhs.uk

Enclosures: *List of names and professions of members who took part in the review*

Copy to: *Mr Daniel Ruth*

North East - Newcastle & North Tyneside 1 Research Ethics Committee

Attendance at Sub-Committee of the REC meeting

Committee Members:

Name	*Profession*	*Present*	*Notes*
Mrs Sue Phillips	Clinical Lead Pharmacist	Yes	
Mr Paddy Stevenson (Chair)	Business Manager/Registered Nurse	Yes	

Also in attendance:

Name	*Position (or reason for attending)*
Mr Frank Macdonald	Appovals Administrator

Appendix G. NHS Ayrshire & Arran R&D Approval April 2021

Research & Development Office
56a Lister Street
University Hospital Crosshouse
Kilmarnock
KA2 0BB

Mr Daniel Ruth
2-2 58 Ferry Road
Glasgow
G38QD

Date 27 April 2021
Your Ref
Our Ref CM/KLB/CI R&D 2020AA081

Enquiries to Karen Bell
Extension 25850
Direct line 01563 825850
Fax 01563 825806
Email Karen.bell2@aapct.scot.nhs.uk

Dear Daniel

Title: Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context
IRAS ref: 285223
Amendment ref: AM02 31.01.21
R&D ref: 2020AA081

I have received the undernoted documentation, relating to proposed changes to the above study:

- AM02 Amendment Tool 31032021_locked[3439]
- Favourable Opinion
- V3. Schedule of Events
- V4 285223 Outline Organisation Information Document UoG signed[3426]
- V5. Consent Form
- V7. Facebook Advertisement
- V8. Participant Information Sheet
- V10. MRP Proposal

I can confirm that the above amendment has been approved.

Please contact the R&D Office if you have any queries. On behalf of the department, I wish you every success with the project.

www.nhsaaa.net

Yours sincerely

Dr Crawford McGuffie
Medical Director

Cc Emma-Jane Gault, University of Glasgow
Dr Naomi White, University of Glasgow

Appendix H. Version 4. Letter to Potential Participants

Letter to Potential Participants

Psychological Services,
1st Floor Horseshoe Building
Ayrshire Central Hospital,
Kilwinning Road, Irvine,
KA12 8SS

Contact: Mr Daniel Ruth / Dr Carolyn Patterson
2428485R@student.gla.ac.uk / 01294 323 565

Title of Project: Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context

Dear _____,

You are invited to take part in the research 'Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context'

This project is based within NHS Ayrshire & Arran and is supported by the University of Glasgow.

If you decide to take part, this research will require you to participate in one interview to answer questions regarding your experiences of weight loss surgery and how you feel about your body. Interviews will take place on Microsoft Teams. It is anticipated the interview will take approximately one hour. Due to Microsoft Team's inbuilt recording function, the interview will be video and audio recorded. This recording will be retained until the end of the study for the purpose of transcription. You may join the Microsoft Teams interview with your camera turned off if you wish. You will require an appropriate device, internet access and access to a private and quiet location.

Before you decide whether to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the attached participant information sheet carefully which addresses the purpose of this research and what it will involve in more detail. Talk to friends and family if you wish.

If there is anything that is not clear, or if you would like more information, please do not hesitate to contact Daniel Ruth (Trainee Clinical Psychologist) at 2428485R@student.gla.ac.uk or Dr Carolyn Patterson (Clinical Psychologist) on 01294 323 565.

Please take your time to decide whether or not you wish to take part in the research.

We would like to thank you for taking time to read this.

Yours sincerely,

Appendix I. Version 7. Participant Information Sheet

Participant Information Sheet

Title of Project: Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context

My name is Daniel Ruth and I am a Trainee Clinical Psychologist within NHS Ayrshire & Arran. I am conducting a research project in partial fulfilment of the Doctorate in Clinical Psychology course at the University of Glasgow. This research project is supervised by Dr Naomi White (Lecturer, Doctorate in Clinical Psychology, University of Glasgow) and Dr Carolyn Patterson (Clinical Psychologist, NHS Ayrshire & Arran).

We would like to invite you to take part in this research. Before you decide, it is important for you to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully.

What is the purpose of the research?

The purpose of this research is to understand men's experience of weight loss surgery and how they feel about their body. We hope that this will enhance our understanding of men's experiences and understand how this is similar and/or dissimilar to women's experiences. This will help us understand specific issues for men, which may help inform future service provisions through tailored support.

Why have I been invited to participate?

We are approaching individuals that meet the following criteria:

- Born male and identify as male
- English speaking
- Aged 18 years or older
- Have received either a gastric bypass or sleeve gastrectomy within the last 5 years (but no earlier than 1 year) under the care of NHS Ayrshire & Arran
- Have not previously had a gastric band
- Have not had cosmetic surgery

Do I have to participate?

No, participation in this research is entirely voluntary. You will be given time to go through this information sheet and ask any questions about participating. If you decide to participate, you will be asked to sign a consent form to show that you have agreed to take part. You are free to withdraw from the interview at any time, without giving a reason. This will not affect the standard of care or any treatment that you are receiving within the NHS.

What does the research involve?

If you agree to take part in this research, you will be invited to an interview with me where I will ask you some questions about how you feel about your body and your experience of weight loss surgery.

Interviews will be held over Microsoft Teams, which is a video conferencing service used to virtually interact with others. It is anticipated that interviews will take approximately one hour. Due to Microsoft Team's inbuilt recording function, the interview will be video and audio recorded. This recording will be retained until the end of the study for the purpose of transcription. You may join the Microsoft Teams interview with your camera turned off if you wish.

You will require an appropriate device, internet access and access to a private and quiet location.

What happens to my information?

Your identity and personal information will be strictly confidential in compliance with General Data Protection Regulations. The recordings will be stored on a secure electronic file and password protected on the University of Glasgow network. The recordings will be used for transcription and a participant number will also be allocated to protect your identity. Consent and demographic forms will also be stored electronically, and password protected on the University of Glasgow network.

Once the recordings have been transcribed by the main researcher (Daniel Ruth), they will be retained for the duration of the study and then deleted. Once the data is anonymised you will be unable to withdraw your data, because it will then not be possible to identify what interview is yours due to the anonymisation process. Anonymised transcriptions will be retained for 10 years. Your data may also be accessed by the study sponsor for the purpose of auditing research. Furthermore, anonymised direct quotes from your interview may be published in future publications and/or presentations.

What is said in the interview will remain confidential, however if you say anything that makes me believe you or someone else is at risk of harm, or is being harmed, I will be required to share this information with appropriate services (e.g. your GP) to keep yourself and others safe.

University of Glasgow is the sponsor for this study based in the United Kingdom. We will be using information from you in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly. University of Glasgow will keep identifiable information about you for 10 years after the study has finished. Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use minimum personally identifiable information possible. You can find out more about how we use your information at the University of Glasgow Data Protection Office at https://www.gla.ac.uk/myglasgow/dpfoioffice/gdpr/ or by contacting dp@gla.ac.uk / 0141 330 3111.

What are the potential benefits of taking part?

There will be no direct benefits to you of participating. However, some participants may find it rewarding to share their experiences and contribute to research investigating men's experience of weight loss surgery within a public healthcare setting, which is currently under-researched. The findings will be shared which may help inform bariatric service provision within the NHS and more widely.

What are the potential risks and disadvantages of taking part?

No significant risks are foreseen for this research. Some people may experience some distress recalling their experiences of weight loss surgery or how they feel about their body. If this is encountered, you are free to pause or stop the interview at any time. Details for follow-up support will be provided at the bottom of this sheet. Due to these possible risks, it would be helpful for us to write to your GP to inform them of your participation in this study. You will be given an opportunity to consent to this prior to the beginning of the interview.

What if I have a complaint about the study?

If you are worried about any aspect of this study or wish to make a complaint, please discuss this in the first instance with me as the lead researcher, Daniel Ruth, using the contact details below. You may also contact one of the team listed below. If your concerns are not resolved, or you wish to comment further, please contact NHS Ayrshire & Arran Complaints Team, PO Box 13, Eglinton House, Ailsa Hospital, Dalmellington Road, Ayr, KA6 6AB (Tel: 01292 513620).

This research project has been reviewed and approved by the University of Glasgow, who is the sponsor of this research. This study has also been approved by the NHS West of Scotland Research Ethics Committee and NHS Ayrshire & Arran Research & Development.

If you are interested in taking part in this research, you will be given a copy of this information sheet and signed consent form to keep.

If you have any further questions regarding this research, please do not hesitate to contact us.

Contact Details

Mr Daniel Ruth, Researcher
Trainee Clinical Psychologist
Ayrshire Central Hospital,
Kilwinning Road, Irvine,
KA12 8SS
(Tel: 01294 323 072)
(Email : 2428485R@student.gla.ac.uk)

Dr Naomi White (Lecturer, Doctorate in Clinical Psychology, University of Glasgow)
University of Glasgow Academic Supervisor
University of Glasgow Doctorate in Clinical Psychology Programme
Room 18, MHW Admin Bldg 1st Floor, Gartnavel, Glasgow G12 0XH
Email: Naomi.White@glasgow.ac.uk

Dr Carolyn Patterson (Clinical Psychologist, NHS Ayrshire & Arran), NHS Field Supervisor
Psychological Services, 1st Floor Horseshoe Building, Ayrshire Central Hospital, Kilwinning Road, Irvine, KA12 8SS
(Tel: 01294 323 565)

Alternatively, you can contact the Research Advisor who is independent of the study:

Independent Contact: Dr Lynda Russell (Lecturer, Doctorate in Clinical Psychology, University of Glasgow
Email: Lynda.Russell@glasgow.ac.uk

Further Advice and Support

If you feel that you have been negatively impacted by receiving this information or participating in our study, please find below contact details for appropriate organisations that can help support you with these difficulties. If you feel you need further support beyond these services, we recommend that you contact your GP.

NHS 24 (111)
Breathing Space (0800 83 85 87)
The Samaritans (116 123)

Thank you for considering taking part and for taking the time to read this information sheet.

Appendix J. Version 6. Facebook Advertisement

Facebook Advertisement

Heading:

New research exploring men's experience of bariatric surgery within a public healthcare context

Main Body:

Would you like to help us understand men's experience of weight loss surgery and its impact on how they feel about their body?

University of Glasgow are recruiting volunteer participants to take part in research exploring men's experience of having weight loss surgery within NHS Ayrshire & Arran and how that affects their body image.

If you decide to take part, this research will require you to attend one interview to answer questions regarding your experiences of weight loss surgery and how you feel about your body. Interviews will take place on Microsoft Teams. It is anticipated the interview will take approximately one hour. Due to Microsoft Team's inbuilt recording function, the interview will be video and audio recorded. This recording will be retained until the end of the study for the purpose of transcription. You may join the Microsoft Teams interview with your camera turned off if you wish. You will require an appropriate device, internet access and access to a private and quiet location.

To participate in this research, you will meet the following criteria:

- You were born **male** and identify as male
- You are aged **18 years or older**
- You have received either a **gastric bypass** or **sleeve gastrectomy** within the last **5 years** (but no more recently than 1 year ago) under the care of **NHS Ayrshire & Arran**
- You have **not** previously had a gastric band
- You have **not** had cosmetic surgery

If you decide to take part, your contribution will help us better understand men's experience of weight loss surgery and its impact on their body image, which is currently an under-researched area. A better understanding will help services deliver appropriate support tailored for men undergoing weight loss surgery in future.

If you'd like to receive an information sheet with further details of the study, please e-mail the lead researcher, **Daniel Ruth**, on 2428485R@student.gla.ac.uk.
This study is sponsored by the University of Glasgow. This study has also been approved by the NHS West of Scotland Research Ethics Committee and NHS Ayrshire & Arran Research & Development.

Appendix K. Version 4. Consent Form

Consent Form

Interview Location (*to be completed by researcher)*:

Title of Project: Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context

*Please initial the following boxes if you **agree** with the statements*

I confirm that I have read and understand the information sheet dated (22/12/2020) (Version 7) and that I have had opportunities to ask questions ☐

I confirm that I understand that my video and audio will be recorded on Microsoft Teams, for the purpose of transcription. ☐

I confirm that I understand that my video and audio recordings will be retained as source data until the study is completed, in case of audit by the sponsor. ☐

I confirm I understand that my personal details will only be known to the main researcher and the study sponsor if the research is audited. ☐

I confirm I understand appropriate services will be contacted with my information only if significant risks are identified. ☐

I confirm I understand that anonymised direct quotes from my interview may be published in future presentations or publications. ☐

I confirm I understand that my GP will be informed of my participation in this study ☐

I confirm that that I understand that my participation in this research is entirely voluntary and that I am free to withdraw my data prior to the anonymisation process ☐

at any time, without giving any reason, without my medical care or legal rights being affected

I agree to take part in the above study ☐

_____	_____	_____
Name of Participant	Date	Signature

_____	_____	_____
Name of Researcher	Date	Signature

Appendix L. Version 8. Participant Information Sheet

Participant Information Sheet

Title of Project: Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context

My name is Daniel Ruth and I am a Trainee Clinical Psychologist within NHS Ayrshire & Arran. I am conducting a research project in partial fulfilment of the Doctorate in Clinical Psychology course at the University of Glasgow. This research project is supervised by Dr Naomi White (Lecturer, Doctorate in Clinical Psychology, University of Glasgow) and Dr Carolyn Patterson (Clinical Psychologist, NHS Ayrshire & Arran).

We would like to invite you to take part in this research. Before you decide, it is important for you to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully.

What is the purpose of the research?

The purpose of this research is to understand men's experience of weight loss surgery and how they feel about their body. We hope that this will enhance our understanding of men's experiences and understand how this is similar and/or dissimilar to women's experiences. This will help us understand specific issues for men, which may help inform future service provisions through tailored support.

Why have I been invited to participate?

We are approaching individuals that meet the following criteria:

- Born male and identify as male
- English speaking
- Aged 18 years or older
- Have received either a gastric bypass or sleeve gastrectomy within the last 8 years (but no earlier than 1 year) under the care of NHS Ayrshire & Arran
- Have not previously had a gastric band
- Have not had cosmetic surgery

Do I have to participate?

No, participation in this research is entirely voluntary. You will be given time to go through this information sheet and ask any questions about participating. If you decide to participate, you will be asked to sign a consent form to show that you have agreed to take part. You are free to withdraw from the interview at any time, without giving a reason. This will not affect the standard of care or any treatment that you are receiving within the NHS.

What does the research involve?

If you agree to take part in this research, you will be invited to an interview with me where I will ask you some questions about how you feel about your body and your experience of weight loss surgery.

Interviews will be held over Microsoft Teams, which is a video conferencing service used to virtually interact with others. It is anticipated that interviews will take approximately one hour. Due to Microsoft Team's inbuilt recording function, the interview will be video and audio recorded. This recording will be retained until the end of the study for the purpose of transcription. You may join the Microsoft Teams interview with your camera turned off if you wish.

You will require an appropriate device, internet access and access to a private and quiet location.

What happens to my information?

Your identity and personal information will be strictly confidential in compliance with General Data Protection Regulations. The recordings will be stored on a secure electronic file and password protected on the University of Glasgow network. The recordings will be used for transcription and a participant number will also be allocated to protect your identity. Consent and demographic forms will also be stored electronically, and password protected on the University of Glasgow network.

Once the recordings have been transcribed by the main researcher (Daniel Ruth), they will be retained for the duration of the study and then deleted. Once the data is anonymised you will be unable to withdraw your data, because it will then not be possible to identify what interview is yours due to the anonymisation process. Anonymised transcriptions will be retained for 10 years. Your data may also be accessed by the study sponsor for the purpose of auditing research. Furthermore, anonymised direct quotes from your interview may be published in future publications and/or presentations.

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University of Glasgow is the sponsor for this study based in the United Kingdom. We will be using information from you in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly. University of Glasgow will keep identifiable information about you for 10 years after the study has finished. Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use minimum personally identifiable information possible. You can find out more about how we use your information at the University of Glasgow Data Protection Office at https://www.gla.ac.uk/myglasgow/dpfoioffice/gdpr/ or by contacting dp@gla.ac.uk / 0141 330 3111.

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There will be no direct benefits to you of participating. However, some participants may find it rewarding to share their experiences and contribute to research investigating men's experience of weight loss surgery within a public healthcare setting, which is currently under-researched. The findings will be shared which may help inform bariatric service provision within the NHS and more widely.

What are the potential risks and disadvantages of taking part?

No significant risks are foreseen for this research. Some people may experience some distress recalling their experiences of weight loss surgery or how they feel about their body. If this is encountered, you are free to pause or stop the interview at any time. Details for follow-up support will be provided at the bottom of this sheet. Due to these possible risks, it would be helpful for us to write to your GP to inform them of your participation in this study. You will be given an opportunity to consent to this prior to the beginning of the interview.

What if I have a complaint about the study?

If you are worried about any aspect of this study or wish to make a complaint, please discuss this in the first instance with me as the lead researcher, Daniel Ruth, using the contact details below. You may also contact one of the team listed below. If your concerns are not resolved, or you wish to comment further, please contact NHS Ayrshire & Arran Complaints Team, PO Box 13, Eglinton House, Ailsa Hospital, Dalmellington Road, Ayr, KA6 6AB (Tel: 01292 513620).

This research project has been reviewed and approved by the University of Glasgow, who is the sponsor of this research. This study has also been approved by the NHS West of Scotland Research Ethics Committee and NHS Ayrshire & Arran Research & Development.

If you are interested in taking part in this research, you will be given a copy of this information sheet and signed consent form to keep.

If you have any further questions regarding this research, please do not hesitate to contact us.

Contact Details

Mr Daniel Ruth, Researcher
Trainee Clinical Psychologist
Ayrshire Central Hospital,
Kilwinning Road, Irvine,
KA12 8SS
(Tel: 01294 323 072)
(Email : 2428485R@student.gla.ac.uk)

Dr Naomi White (Lecturer, Doctorate in Clinical Psychology, University of Glasgow)
University of Glasgow Academic Supervisor
University of Glasgow Doctorate in Clinical Psychology Programme
Room 18, MHW Admin Bldg 1st Floor, Gartnavel, Glasgow G12 0XH
Email: Naomi.White@glasgow.ac.uk

Dr Carolyn Patterson (Clinical Psychologist, NHS Ayrshire & Arran), NHS Field Supervisor
Psychological Services, 1st Floor Horseshoe Building, Ayrshire Central Hospital, Kilwinning Road, Irvine, KA12 8SS
(Tel: 01294 323 565)

Alternatively, you can contact the Research Advisor who is independent of the study:

Independent Contact: Dr Lynda Russell (Lecturer, Doctorate in Clinical Psychology, University of Glasgow
Email: Lynda.Russell@glasgow.ac.uk

Further Advice and Support

If you feel that you have been negatively impacted by receiving this information or participating in our study, please find below contact details for appropriate organisations that can help support you with these difficulties. If you feel you need further support beyond these services, we recommend that you contact your GP.

NHS 24 (111)
Breathing Space (0800 83 85 87)
The Samaritans (116 123)

Thank you for considering taking part and for taking the time to read this information sheet.

Appendix M. Version 7. Facebook Advertisement

Facebook Advertisement

Heading:

New research exploring men's experience of bariatric surgery within a public healthcare context

Main Body:

Would you like to help us understand men's experience of weight loss surgery and its impact on how they feel about their body?

University of Glasgow are recruiting volunteer participants to take part in research exploring men's experience of having weight loss surgery within NHS Ayrshire & Arran and how that affects their body image.

If you decide to take part, this research will require you to attend one interview to answer questions regarding your experiences of weight loss surgery and how you feel about your body. Interviews will take place on Microsoft Teams. It is anticipated the interview will take approximately one hour. Due to Microsoft Team's inbuilt recording function, the interview will be video and audio recorded. This recording will be retained until the end of the study for the purpose of transcription. You may join the Microsoft Teams interview with your camera turned off if you wish. You will require an appropriate device, internet access and access to a private and quiet location.

To participate in this research, you will meet the following criteria:

- You were born **male** and identify as male
- You are aged **18 years or older**
- You have received either a **gastric bypass** or **sleeve gastrectomy** within the last **8 years** (but no more recently than 1 year ago) under the care of **NHS Ayrshire & Arran**
- You have **not** previously had a gastric band
- You have **not** had cosmetic surgery

If you decide to take part, your contribution will help us better understand men's experience of weight loss surgery and its impact on their body image, which is currently an under-researched area. A better understanding will help services deliver appropriate support tailored for men undergoing weight loss surgery in future.

If you'd like to receive an information sheet with further details of the study, please e-mail the lead researcher, **Daniel Ruth**, on 2428485R@student.gla.ac.uk.
This study is sponsored by the University of Glasgow. This study has also been approved by the NHS West of Scotland Research Ethics Committee and NHS Ayrshire & Arran Research & Development.

Appendix N. Version 5. Consent Form

Consent Form

Interview Location (*to be completed by researcher)*:

Title of Project: Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context

*Please initial the following boxes if you **agree** with the statements*

I confirm that I have read and understand the information sheet dated 17/03/2021 (Version 8) and that I have had opportunities to ask questions ☐

I confirm that I understand that my video and audio will be recorded on Microsoft Teams, for the purpose of transcription. ☐

I confirm that I understand that my video and audio recordings will be retained as source data until the study is completed, in case of audit by the sponsor. ☐

I confirm I understand that my personal details will only be known to the main researcher and the study sponsor if the research is audited. ☐

I confirm I understand appropriate services will be contacted with my information only if significant risks are identified. ☐

I confirm I understand that anonymised direct quotes from my interview may be published in future presentations or publications. ☐

I confirm I understand that my GP will be informed of my participation in this study ☐

I confirm that that I understand that my participation in this research is entirely voluntary and that I am free to withdraw my data prior to the anonymisation process ☐

at any time, without giving any reason, without my medical care or legal rights being affected

I agree to take part in the above study ☐

_____	_____	_____
Name of Participant	Date	Signature

_____	_____	_____
Name of Researcher	Date	Signature

Appendix O. Version 4. Semi-Structured Interview

Title of Project: Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context

Semi-Structured Interview Schedule

Introduction

Thank you for agreeing to take part in our research. My name is Daniel and I am a Trainee Clinical Psychologist from the University of Glasgow. The aim of the interview is to hear about your experiences of bariatric surgery and body image. I will ask you some questions, but you can decide to not answer any of these questions. The interview will take approximately an hour. If you would like a break, or would like to stop at any time, please let me know.

As outlined in the information sheet, what we discuss will remain confidential. However, if you say anything that makes me believe you or someone else is at risk of harm, or is being harmed, I will be required to share this information with appropriate services to keep yourself and others safe.

Our interview will be recorded to capture exactly what you have said. Afterwards, I will type it up and remove any details which could identify you or anyone you speak about.

I will start by asking a question and will ask follow-up questions for further information. When I ask to follow up questions, this does not mean that your answer wasn't 'right' or 'good enough', it's just my way of ensuring that I have got as much information as possible to help understand your experience better.

- Do you have any questions?

- Discuss and complete consent form

Start Recording

1. I wonder if you could start by describing how you felt about yourself in the past, up until when you had bariatric surgery?

   [Prompts: *your identity, your appearance?*]

2. Could you tell me a little about how you perceive the male identity?

3. What impact, if any, has being a man influenced how you felt about yourself before bariatric surgery?

4. Looking back, how did you hope things would change for you after surgery? [Prompts: on *your identity, on your appearance?*]

5. How do the results of surgery compare to your expectations?

6. What impact, if any, have the results of bariatric surgery had on the way you felt about yourself after surgery?

   [Prompts: *your identity, your appearance?*]

7. What has been your experience of weight loss following surgery?

8. How do you feel about yourself now?

   [Prompts: *your identity, your appearance?*]

9. What impact, if any, has being a man had on your experience of bariatric surgery?

10. From your experience, what would be helpful advice for males considering or preparing for bariatric surgery?

11. Is there anything else you would like to add that we may not have already spoken about?

    [General Prompts]

    If you can, can you tell me more about that?

Stop Recording

Follow Up

- Collect demographic information
- Verbally debrief the participant and ensure the participant is not distressed about anything discussed within the interview and ensure appropriate advice and sign posting is offered
- Ask the participant if they would like to be notified of any dissemination of the findings from the research
- Ask if there are any further questions in relation to the interview and/or research
- Thank for time and involvement in the project

Appendix P. Version 4. Demographic Information Form

Demographic Information

Title of Project: Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context

Date of Completion:

Participant ID Number:

Age:

Ethnicity (*circle or highlight in bold)*:

Asian, Asian British, Asian English, Asian Scottish or Asian Welsh

Black, Black British, Black English, Black Scottish or Black Welsh

Mixed

White

Chinese/Middle Eastern/Other Ethnic Background

Prefer not to say

Marital Status:

Divorced or Separated

Married / Civil Partnership / Cohabiting

Single

Widowed

Prefer not to say

Sexual Orientation:

Heterosexual or Straight

Gay or Lesbian

Bisexual

Other:

Prefer not to say

Employment Status:

Type of Surgery (*circle or highlight in bold all that apply)*: Gastric Bypass/ Sleeve Gastrectomy/ Gastric Balloon

Time Since Latest Surgery:

Appendix Q. Version 2. Letter to GP

Letter to GP

Psychological Services,
1st Floor Horseshoe Building,
Ayrshire Central Hospital,
Kilwinning Road, Irvine,
KA12 8SS

Contact: Mr Daniel Ruth / Dr Carolyn Patterson
2428485R@student.gla.ac.uk / 01294 323 565

Title of Project: Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context

RE: Participants Name, D.O.B, Address

Dear Dr _____,

I am writing to inform you that **Participants Name** has recently consented to participate in the above research study and has provided consent to notify you as their GP. The study aims to understand men's experience of weight loss surgery and its impact on how they feel about their body. I have enclosed a copy of the participant information sheet for your information.

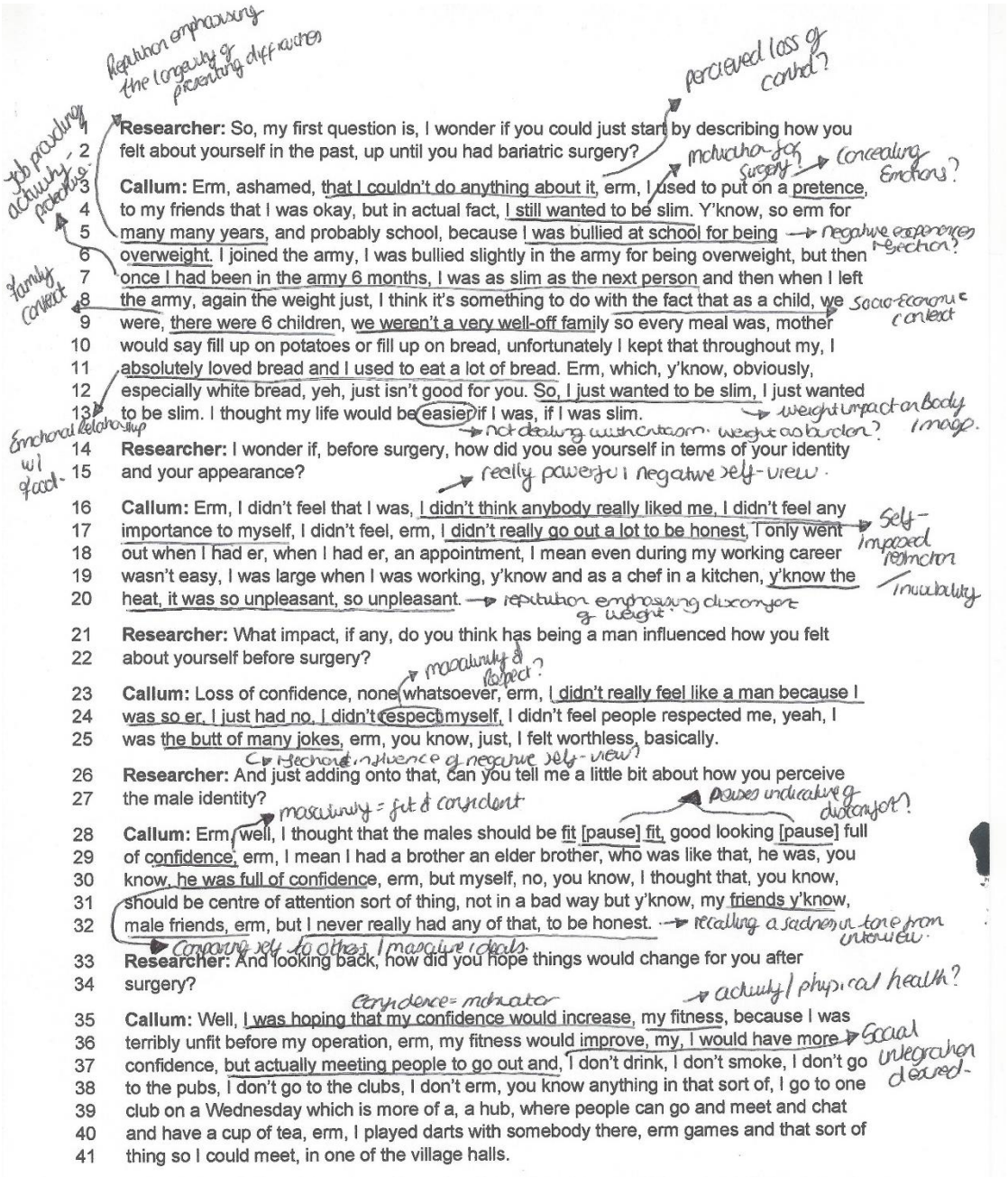
We would be grateful if you could read over the participant information sheet, and following this, we would invite you to contact us if you have any questions relating to the study, or concerns regarding **Participants Name** participation.

Yours sincerely,

Mr Daniel Ruth
Trainee Clinical Psychologist

Dr Carolyn Patterson
Clinical Psychologist

Appendix R. Sample of Annotated Transcripts



Researcher: So, my first question is, I wonder if you could just start by describing how you felt about yourself in the past, up until you had bariatric surgery?

Callum: Erm, ashamed, that I couldn't do anything about it, erm, I used to put on a pretence, to my friends that I was okay, but in actual fact, I still wanted to be slim. Y'know, so erm for many many years, and probably school, because I was bullied at school for being overweight. I joined the army, I was bullied slightly in the army for being overweight, but then once I had been in the army 6 months, I was as slim as the next person and then when I left the army, again the weight just, I think it's something to do with the fact that as a child, we were, there were 6 children, we weren't a very well-off family so every meal was, mother would say fill up on potatoes or fill up on bread, unfortunately I kept that throughout my, I absolutely loved bread and I used to eat a lot of bread. Erm, which, y'know, obviously, especially white bread, yeh, just isn't good for you. So, I just wanted to be slim, I just wanted to be slim. I thought my life would be easier if I was, if I was slim.

Researcher: I wonder if, before surgery, how did you see yourself in terms of your identity and your appearance?

Callum: Erm, I didn't feel that I was, I didn't think anybody really liked me, I didn't feel any importance to myself, I didn't feel, erm, I didn't really go out a lot to be honest, I only went out when I had er, when I had er, an appointment, I mean even during my working career wasn't easy, I was large when I was working, y'know and as a chef in a kitchen, y'know the heat, it was so unpleasant, so unpleasant.

Researcher: What impact, if any, do you think has being a man influenced how you felt about yourself before surgery?

Callum: Loss of confidence, none whatsoever, erm, I didn't really feel like a man because I was so er, I just had no, I didn't respect myself, I didn't feel people respected me, yeah, I was the butt of many jokes, erm, you know, just, I felt worthless, basically.

Researcher: And just adding onto that, can you tell me a little bit about how you perceive the male identity?

Callum: Erm, well, I thought that the males should be fit [pause] fit, good looking [pause] full of confidence, erm, I mean I had a brother an elder brother, who was like that, he was, you know, he was full of confidence, erm, but myself, no, you know, I thought that, you know, should be centre of attention sort of thing, not in a bad way but y'know, my friends y'know, male friends, erm, but I never really had any of that, to be honest.

Researcher: And looking back, how did you hope things would change for you after surgery?

Callum: Well, I was hoping that my confidence would increase, my fitness, because I was terribly unfit before my operation, erm, my fitness would improve, my, I would have more confidence, but actually meeting people to go out and, I don't drink, I don't smoke, I don't go to the pubs, I don't go to the clubs, I don't erm, you know anything in that sort of, I go to one club on a Wednesday which is more of a, a hub, where people can go and meet and chat and have a cup of tea, erm, I played darts with somebody there, erm games and that sort of thing so I could meet, in one of the village halls.

Appendix S. Sample of Analysis Notes

Box = Corresponds with Transcript Page Number (e.g., Box 1 = Page 1)
Descriptive Comments; *Linguistic Comments*; Conceptual Comments

Emergent Themes	Original Transcript	Exploratory Comments
Negative Self View	"So having been big all my life [pause], erm, so, I felt at the age of, well Primary 7 I suppose [pause] so you're talking just before my teenage years that I was always the biggest in the class and I was bullied and stuff so I didn't feel any kind of self-worth"	Reflecting on previous of experiences of being bullied at school *Pauses might indicate discomfort recalling these memories* This account is suggestive of feeling vulnerable and in the 'spotlight' due to being 'bigger' than his peers, which has influenced a negative self-view.
Feeling Different & Self-Isolation	"I felt alone because everybody had friends and such. I didn't have many friends growing up through school and everybody that was friends, it was always the odd kids through school, and certainly going into teenage years, going into the academy that whole bullying got worse so you became withdrawn"	Reflection on previous friendships, experiencing bullying at school, and the transition into adolescence. Associating self as 'different', which has resulted in self-isolation which maintain a sense of being 'different'.
Rejection	"Being the fat kid who wore glasses d'yaknow and it, it hurt so it did, it hurt that people didnae see who you were, erm and that you wanted to join in a lot of the stuff especially at sports and things and they just made an absolute mockery of you, erm so yeah it was difficult"	Reflecting on the experiences of feeling rejected at school *Repetition of "it hurt" highlights the negative impact of these* Being rejected as a result of 'feeling different' as a result of weight
Not 'Normal' **Depression**	"I couldnae get used to the fact that I was the big person, always felt that I'd never be normal. I would never be able to go and pick clothes over the rail in a shop, erm very depressed, I would go home and sleep a lot, I wouldnae engage in a lot of things so that whole, lack of motivation and, lack of self-worth I suppose, erm stopped me doing a lot, yeah"	Reflecting on how he felt due to his weight, and describing what impact this had on his functioning and mental health. Not feeling 'normal' may have contributed to an avoidance of valued activity, which may have perpetuated his experience of depression.
Concealing Emotions	"A lot of people think that men just get on wae it, and they don't have any feelings about how they look or how they feel and stuff, and that a lot of their emotions is hidden, and I, I suppose yeah I did tend to hide a lot about my weight and how I, it actually affected me, erm, I, don't know, I, cause it's just that whole generational thing and look men arnae supposed to show emotion and I'm quite an emotional guy"	Describing perception of masculinity and describing conformity to this ideal. Masculine ideals (hiding emotions) may have encouraged concealing how he felt about his weight, which may have perpetuated a sense of 'feeling different'.

Appendix T. Major Research Project Proposal

Major Research Project Final Proposal

Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context

Student ID: 2428485

Date of Submission: 20/05/2020

Version Number: 5

Actual Word Count (Excluding References & Appendix): 2,940

Maximum Word Count: 3,000

Abstract

Background: Bariatric surgery is a successful weight loss solution for individuals living with obesity. Previous research suggests mixed findings: bariatric surgery can improve body image but can also result in body image dissatisfaction. A majority of those included in previous research identify as female and little is known about males within a public healthcare context.

Aims: The main aim of this project is to explore the lived experiences of men that have had bariatric surgery and how this has had an impact on body image.

Methods: Data analysis will take the form of an Interpretative Phenomenological Analysis (IPA) with a sample of men from NHS Ayrshire & Arran that have had either a gastric bypass or sleeve gastrectomy. This will allow an exploration of body image, including a retrospective focus on their body image and expectations prior to receiving bariatric surgery and exploring body image after receiving bariatric surgery.

Applications: This study will help enhance understanding on male body image in relation to bariatric surgery, and whether this differs from females. This study may also help inform whether current processes and support within bariatric services needs to be tailored with gender-sensitive issues taken into consideration.

Introduction

Obesity is a worldwide epidemic and is currently one of the fastest growing health issues (World Health Organization, 2018). Statistics from 2017 suggest that within Scotland, 65% of adults aged 16 years and over were classed as overweight, of which 29% were classified as obese (Scottish Government, 2018). Obesity can have a detrimental impact on an individual's physical and mental health, which can include heart disease, hypertension, diabetes, stroke, dementia, low self-esteem, anxiety and depression (Keskin et al., 2010; World Health Organization, 2018).

Bariatric surgery is currently the most effective available treatment for obesity that produces substantial weight loss. Many individuals who have bariatric surgery report significant improvements in obesity-related medical comorbidities (Sjöström et al., 2014). However, in terms of body image, the evidence appears to be mixed.

Research suggests that a proportion of individuals who have had bariatric surgery report improvements in body image, body esteem and a reduction in body image avoidance (Ivezaj & Grilo, 2018; Madan et al., 2008; Williams et al., 2018).

In contrast, research suggests also that bariatric surgery does not improve body image. For instance, some individuals who have had bariatric surgery report their body image as 'ugly' and problematic as a result of loose hanging skin post-surgery (Gilmartin, 2013). In turn, excess skin appeared to contribute to poor self-esteem, increased mood swings, and even severe body hatred and depression for some (Gilmartin, 2013). Some research found individuals perceived their excess skin as "worse than being fat" and sought plastic surgery to remove this with the aim of looking 'normal' (Coulman et al., 2017, p. 554).

Further research has investigated individual's expectations of bariatric surgery which may provide insight into the mixed findings on the impact of bariatric surgery on body image. For instance, research suggests that individuals may have high expectations which includes to "look more slim and beautiful", to "more easily find a husband" and to improve physical intimacy (Cohn, Raman, & Sui, 2019, p.1613-1615). Although research found some expectations were met for some individuals in relation to new relationships (Coulman et al., 2017), it might be that high expectations about secondary outcomes may lead to dissatisfaction which may explain mixed findings from the literature regarding the impact of bariatric surgery on body image.

Aforementioned research highlights mixed findings on the impact of bariatric surgery on body image and also the expectations individuals have of bariatric surgery on their body image. These findings appear to be in line with what we know about body image concerns in women more generally, where there appears to be a theme of body dissatisfaction and the desire for 'thinness' as widely presented in the media (Bearman et al., 2006; Fouts & Vaughan, 2002). Although male body image appears to be equally as complex with desires to be 'slim', 'muscular' and 'not too muscular' (Drewnowski & Yee, 1987; McCabe & Ricciardelli, 2004; Silberstein et al., 1988), it is unclear how this translates to a bariatric population because men are underrepresented within the bariatric surgery literature.

Research has started to look at these issues in men. For instance, a recent Australian qualitative study found that men who had received bariatric surgery reported hair loss concerns as a result from decreased consumption of food and nutrients (Edward, Hii, Giandinoto, Hennessy, & Thompson, 2016). In addition, men also reported excess skin being 'unattractive'. Although there were some body image related concerns, men reported feeling 'generally happier' with their body image (Edward et al., 2016).

It was observed that men appeared to minimise their concerns in relation to body image by identifying that improving their physical health was their primary motivation (Edward et al., 2016). This appears to fit in line with previous research identifying that men appear to minimise the cosmetic benefits of surgical interventions for weight loss (Bocchieri et al., 2002; Brantley et al., 2014). A review investigating help-seeking behaviour suggests that men are more "likely than women to focus on physical problems" and are "less likely to disclose mental and emotional problems". It might be that these men supress these concerns in a bid to maintain their masculine identities (Smith, Braunack-Mayer, & Wittert, 2006, p.81).

Statistics suggest that men are more likely than females to be classified as being overweight and obese (67% compared to 63%) (Scottish Government, 2018) and men are progressively more visible in popular culture through lean and muscular representations (Strother et al., 2012). It would therefore be worthwhile gaining a deeper understanding of potential body image concerns in men to ascertain how similar or dissimilar they are to documented body image concerns in women.

Aforementioned research samples have been obtained from populations within Australia and the United States of America where healthcare is different to public healthcare in Scotland. For instance, previous research identified that men had concerns regarding additional costs with surgery which include ongoing appointments

with surgeons, dieticians, psychologists and potentially plastic surgery to remove excess skin (Edward et al., 2016). This suggests that participants involved had different experiences of care pre and post-surgery if they could not all afford different disciplines involved within bariatric surgery care. This may also suggest that individuals may have had different access to further avenues for altering body image post weight loss. These factors may affect findings regarding body image in men, and therefore it's important to investigate the impact of body image in a public healthcare setting and in which it is unlikely excess skin removal would be an option.

Bariatric surgery is currently the most effective treatment option for obesity and literature alludes to mixed findings in terms of body image post bariatric surgery. This highlights the complexity of this phenomena and the need to explore this further. Men are underrepresented within the literature, and current research has been conducted within Australia and the United Sates. It is uncertain how generalisable these findings are to a public healthcare context given the differences in provisions. With this in mind and research highlighting that men appear to minimise their body image concerns (Edward et al., 2016), this current study aims to provide a platform for men to address potential body image concerns.

Aims

The main aim of this project is to explore experiences of body image more generally in men that have received bariatric surgery, who have not received additional cosmetic procedures to alter their body image. To capture the complexity of this, body image in men prior to receiving bariatric surgery and expectations of bariatric surgery will be explored retrospectively. Using an Interpretative Phenomenological Analysis (IPA) approach will allow these participants to discuss issues in relation to their general body image which they feel are important to them. Existing literature suggests that these issues might be related to hair loss and excess skin (Edward et al., 2016), issues relating to masculinity (Smith et al., 2006) and the impact of surgery on relationships (Coulman et al., 2017). Given the nature of IPA, it might also be that participants raise areas which have not previously been identified in the existing literature.

Plan of Investigation

Participants

The following inclusion and exclusion criteria will be used with the aim of recruiting a homogeneous sample.

Inclusion Criteria

- Individuals who identify as male and have received either a gastric bypass or sleeve gastrectomy within the last 5 years, but no earlier than 1 year, under the care of National Health Service (NHS) Ayrshire & Arran.

Exclusion Criteria

- Participants that have received bariatric surgery within 1 year of recruitment will be excluded from this current study. This is because research suggests that within the first year of surgery, individuals experience a 'honeymoon phase' in that a loss of up to 35% of body weight can be experienced (Lynch, 2016). Therefore, after the first year, individuals may experience more stabilisation of weight loss and adjustment post-surgery.

- Individuals that have had a gastric band and gone on to have either a gastric bypass or sleeve gastrectomy will be excluded from this current study. NHS Ayrshire & Arran have not offered a gastric band procedure since the start of this current study. It is likely that those who have previously had a gastric band and then gone on to adjust to a gastric bypass or sleeve gastrectomy will have had a longer term of adjustment to bariatric surgery and body image.

- Individuals who have received a gastric balloon without going on to have a gastric bypass or sleeve gastrectomy will be excluded from this current study. A gastric balloon is a temporary measure with a time frame of up to 6 months. Those offered a gastric balloon also have difficulty tolerating the balloon due to abdominal pain and non-compliance (Milone et al., 2005). Therefore, individuals who have received the gastric balloon are likely to have different experiences to those that receive a gastric bypass or sleeve gastrectomy.

- Individuals who have had additional cosmetic procedures to alter body image (e.g. excess skin removal) will be excluded from this current study.

Sample Size

There will be an estimated sample size of around 6-10 given that an IPA approach recommends a concentrated focus on a small number of cases due to the complexity

of human experiences (Smith, Flowers & Larkin, 2009). In a bid to ensure that the depth and diversity of experiences are accounted for without data presenting as repetitive, collection will cease when no new emergent themes are elicited from the transcripts.

Recruitment Procedure

Purposive sampling will be used with the aim of identifying individuals within the inclusion and exclusion criteria. It is currently anticipated that there will be two methods of recruiting participants. It is hoped that the first method will involve psychology admin colleagues within NHS Ayrshire & Arran obtaining surgical lists to send a letter to individuals that appear to meet inclusion criteria. The letter will include details of the current study, inclusion and exclusion criteria and contact details of the researcher. Furthermore, it is also anticipated the poster and information sheet will be posted on a service-user led Facebook support group page with details of the current study and contact details of the researcher.

Measures

Demographic information will be collected to obtain age, type of surgery, marital status and time since surgery. The nature of enquiry into marital status is due to research suggesting that body image concerns can be related to intimacy in new and existing relationships (Coulman et al., 2017). Time since surgery will also be asked because the nature of body image can change over time and it is important to establish as much of a homogeneous group as possible.

Design

A qualitative study design will be used through semi-structured individual interviews. This will be developed in consultation with supervisors, informed by existing research and with service user consultation. This will help ensure that questions are phrased in an accessible manner, deemed relevant, and to ensure the semi-structured interview schedule is flexible in nature to allow participants to communicate their experiences.

Research Procedures

Data Analysis

Data analysis will take the form of an Interpretative Phenomenological Analysis (IPA) approach which is often used in health psychology research. The purpose of IPA is to investigate individuals lived experiences and how they make sense of them (Smith,

Flowers & Larkin, 2009). More specifically, IPA is underpinned by phenomenology, hermeneutics and idiography.

Phenomenology was a concept developed by a Husserl, which draws a focus on attending to what particular components of an individual's experience makes it unique to them. To make this possible, it involves the researcher 'bracketing' any preconceptions they have about a given experience and allowing the experience to speak for itself. Hermeneutics refers to interpretation of experiences and IPA is often described as a 'double hermeneutic' in that participants are making meaning of their own experiences, and the researcher has an active role of interpreting the participants' meaning making (Pietkiewicz & Smith, 2014). Idiography refers to a close examination of individual accounts of experiences and emphasises the need to explore every case prior to producing general statements. This requires equal attention and exploration of each participant's interpretation of their experience.

With the aforementioned in mind, analysis will follow the 6-step process recommended by Smith, Flowers and Larkin (2009). Step 1 includes 'reading and re-reading' original interview transcripts with the aim of immersing into participants' interpretations of their experiences. Step 2 refers to 'initial noting' with the aim of examining the semantic content and language use. This also provides an opportunity for the researcher to produce detailed notes and comment on the data. Step 3 involves 'developing emergent themes' which attempts to reduce the volume of the initial notes, albeit maintaining details of experiences and mapping patterns. Step 4 involves 'searching for connections across emergent themes' which involves identifying 'super-ordinate themes' which aims to encompass similar themes together. With idiography in mind, Step 5 involves moving onto the next participant transcript and repeating Steps 1-4. Step 6 involves 'looking at patterns across cases' to identify any potential connections.

It is currently anticipated that analysis will take the form of using paper rather than using Nvivo.

Settings and Equipment

In light of restrictions from COVID-19, it is currently anticipated that data will be obtained from semi-structured interviews conducted over video-calling software named 'Attend Anywhere' within an NHS Ayrshire & Arran clinic room, or possibly from the researcher's home depending on local policy at the time of recruitment. It is anticipated that a Dictaphone for audio recording semi structured interviews, an

encrypted computer to store the records and a foot pedal for transcribing the semi structured interviews will be required.

Health and Safety Issues

There are minimal practical risks anticipated for participants or the researcher as data collection will take place in NHS Ayrshire & Arran and the researcher will follow local Health and Safety policies. It's possible that participants may experience some emotional distress when discussing their body image pre surgery, their expectations of bariatric surgery on their body image and body image post-surgery. Any mental health risks identified will be highlighted to a member of the clinical team within the bariatric service.

Ethical Issues

Participants will be provided with an information sheet which will inform individuals the purpose of the current study and contact details for any queries. The information sheet will inform individuals that they have the right to withdraw from the study at any time and either participation or withdrawal will not have an impact on their treatment within NHS Ayrshire & Arran. This information will enable individuals to make an informed decision as to whether to participate in the study or not. The data collected will be anonymised by assigning participants with a pseudo-name.

Patients that have received bariatric surgery may experience psychological difficulties which may be primary or secondary to reasons why they opt to receive bariatric surgery. It will be important to discuss the limits of confidentiality prior to starting the semi-structured interviews. If the researcher identifies possible clinical risk, concerns would be communicated to the Clinical Psychologist within the bariatric service. The participant information sheet will also provide participants with information on accessing advice and support should they experience any difficulties as a result of taking part in the study (e.g. signposting participants to contact their GP and providing contact details for NHS 24, Breathing Space and The Samaritans.

Financial Issues

There will be minimal financial costs associated with the current study. A ream of white paper, black and white printing, a box of envelopes and freepost per letter will be required as demonstrated in Appendix A.

Timetable

Outline:	30 September 2019 (Word Count: 1,500)
Draft Proposal:	09 December 2019 (Word Count: 3,000)
Final Proposal (Blind Marked):	27 January 2019 (Word Count: 3,000)
Begin Ethics Application:	February 2020
Final Proposal Submission:	29 May 2020
Ethics Application (Ideal Approval):	Summer 2020
Recruitment:	Summer 2020– March 2021
Data Collection:	Summer 2020 – March 2021
Analyses:	Summer 2020 – May 2021
Initial Report Draft:	May 2021
Report Submission:	July 2021

Practical Applications

Research has investigated body image concerns for individuals who have had bariatric surgery. However, men under-represented within the bariatric surgery literature. One practical application of understanding male body image within bariatric surgery is to ascertain to what extent this is similar or dissimilar to women. Findings could inform gender sensitive support adapted both pre and post-surgery to enhance the well-being of individuals who have bariatric surgery.

Exploring men's expectations of bariatric surgery on their body image could help inform how services prepare them for bariatric surgery and support their psychological adjustment afterwards.

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Appendix 1. Research Costs & Equipment

RESEARCH COSTS & EQUIPMENT

RESEARCH EQUIPMENT, CONSUMABLES AND EXPENSES

Trainee

Year of Course: 2 **Intake Year**: 2018

Please refer to latest stationary costs list (available from student support team)

Item	**Details and Amount Required**	**Cost or Specify if to Request to Borrow from Department**
Stationary	1x Ream (500 Sheets) of White Paper	Subtotal: £2.95
Postage	20x Free Post	Subtotal: £12.20
Photocopying and Laser Printing	300x B&W Printed Sheets (Information Sheet, Consent Form, Interview Schedules, Debrief Form and Interview Transcripts)	Subtotal: £15
Equipment and Software	1x Dictaphone 1x Encrypted Computer/Laptop 1x Foot Pedal	Provided by University of Glasgow/ NHS Ayrshire & Arran
Measures	N/A	Subtotal: £0
Miscellaneous	1x Bariatric Chair	Provided by NHS Ayrshire & Arran

Total: £30.15

For any request over £200 please provide further justification for all items that contribute to a high total cost estimate. Please also provide justification if costing for an honorarium:

Trainee Signature..... ... Date..... Supervisor’s Signature ..... Date .....

Appendix 2. Health & Safety Form

HEALTH AND SAFETY FOR RESEARCHERS

1. Title of Project	Exploring Men's Experience of Body Image and Bariatric Surgery within a Public Healthcare Context.
2. Trainee	
3. University Supervisor	
4. Other Supervisor(s)	
5. Local Lead Clinician	
6. Participants: (age, group or sub-group, pre-or post-treatment, etc)	It is estimated that there will be around 6-10 participants. These participants will identify as male and over the age of 18 years old and have received either a gastric bypass or sleeve gastrectomy under the care of NHS Ayrshire & Arran within the last 5 years.
7. Procedures to be applied (eg, questionnaire, interview etc)	Semi-structured interviews will take place to obtain data. Interviews will be audio recorded for the purpose of transcription.
8. Setting (where will procedures be carried out?) i) General	Procedures will be carried out within an NHS Ayrshire & Arran clinic room.
ii) Are home visits involved	No.
8. Potential Risk Factors Identified (see chart)	i) Participant Distress ii) Minimal iii) Minimal
9. Potential Risk Factors Considered	i) It might be that participants may experience some emotional distress when

(for researcher+participant safety): i) Participants ii) Procedures iii) Settings	discussing their body image. Confidentiality and limits will be discussed prior to commencing study. Any mental health risks identified will be highlighted to a member of the clinical team within the bariatric service. Participants will also have consented to participate prior to the study and informed that they can withdraw from the study at any time. ii) Same as above. iii) Researcher will follow local NHS Ayrshire & Arran Health and Safety policies.

Trainee Signature: Date:

University Supervisor Signature: Date: