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School of Healthcare

FACULTY OF MEDICINE AND HEALTH



Research Report

Quality of Life Following Massive Weight Loss and Body Contouring Surgery: an Exploratory Study.



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Quality of Life Following Massive Weight Loss and Body Contouring Surgery: an Exploratory Study.

Research Team

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Executive Summary

Background

Reconstructive surgery is a major growth intervention for body improvement, enhancing appearance and psychological well-being following massive weight loss. The psychosocial benefits include greater capacity for social networking, lower scores of body uneasiness, body image satisfaction, improved mental well-being and physical function. However little collective evidence exists regarding the impact of body contouring on patients Quality of Life (QoL) and there is a lack of systematic review and randomised controlled trials (RCTs) with a scarcity of high level evidence.

Study Purpose

The purpose of this exploratory study was to explore the QoL perceptions, experiences and outcomes of patients who have undergone body contouring following significant weight loss and to explore the relevance and potential utility of the Obesity Psychosocial State Questionnaire (OPSQ) as a valuable QoL outcomes measuring tool for use in clinical research.

Method

Data were collected in a community setting in the south of England via digitally recorded semi-structured interviews with twenty participants (18 women and 2 men), who also self-completed the Obesity Psychosocial State Questionnaire (OBSQ). Medical notes were reviewed retrospectively to gather data about body mass index (BMI), co-morbidities, eating profiles/lifestyle, uptake of bariatric surgery and type/number of body contouring procedures undergone. A thematic approach was adopted to analyse the interviews and medical record data, supported by Nvivo7 qualitative software, and a statistical approach to analyse the questionnaire data, supported by Statistical Analysis Software.

Results

The results provide unique glimpses of the body contouring interventions for empowering and facilitating a 'transformation', a 'new identity', a 'new start' in life, improved physical function, greater body image satisfaction, a stronger sense of wellbeing and an improved quality of life. A few of the participants who reported that their weight gain was powered by childhood traumas (abuse, neglect, abandonment) continued to struggle for 'normality', with fragile eating control and addictive traits. Eating disordered trauma survivors mentioned post traumatic flashbacks and underlying conflicts that triggered powerlessness and emotional eating. The emotional flooding with psychological and body related memories did not appear to be fully processed or released, despite counselling and binge eating programmes. The participants also confirmed the value of the OBSQ, whilst highlighting its limited set of three questions on feelings of self-efficacy towards eating habits.

Implications for Future Research

The study findings show that body contouring optimises quality of life with significant improvement in physical function, body image, mental health and psychosocial function. Further research is warranted to extent the scope of the findings within a sample drawn from multiple treatment centres. This would valuably:

- Explore gender, ethnic and cultural variables, important to optimising quality of life.
- Clarify distinguishing features between short and long-term QoL outcomes.
- Lead to the development of national policy and guidelines on reconstructive 'body contouring' surgery following massive weight loss, in line with the call from the British Association for Plastic, Reconstructive and Aesthetic Surgeons (BAPRAS)

A future multi-centre collaborative study could employ the OBSQ, supplemented by an additional tool to explore factors that influence eating habits such as the three factor eating questionnaire (such as the TFEQ-R1 21 Scale). Such research could enhance understanding of quality of life and long-term weight management.

Introduction

The global obesity epidemic is a major public health challenge, raising the potential of early onset of diabetes, early heart disease and potentially a greater risk of mortality. Multiple national (for example, in the UK, Walness 2004, NICE 2006) and international (for example, European guidelines, Tsigos et al. 2008; Canadian clinical guidelines, Lau et al. 2006.) reports have drawn attention to this increasing threat to public and individual health and the need for healthier eating and healthier lifestyles, including take more physical exercise and eating choices (Shaw et al. 2009). Alongside, a growing number of morbidly obese patients¹ are seeking (bariatric) surgical solutions to control or address their obesity.

Even when successful, bariatric surgery leaves the patient with a huge excess of lax, overstretched skin (Herman et al. 2010) and potential ongoing personal challenges to retain their weight loss. The resultant redundant skin presents new concerns in a range of areas such as mobility, decreased activity, body image dissatisfaction and depression (Song et al. 2006, Mitchell et al. 2008). Multiple studies have demonstrated that perception of body image is a highly significant factor in psychological and social health and well-being. The excess skin causing physical discomfort, psycho-social problems and concern about quality of life (QoL) in general has led to an increasing uptake of post-bariatric reconstructive (or 'body contouring') surgery, to manage the complex problems that span multiple parts of the body after massive weight loss.

A recent critical review of published research literature on the impact of body contouring surgery following weight loss on patient QoL identified seven studies that directly reported on QoL changes (Gilmartin 2011). The review itself, using a comprehensive search strategy of five on-line databases covering the period 2000-2010, located a wider set of ten papers, addressing issues of either QoL, areas of dissatisfaction and/or complications. Each paper was rigorous appraised. A number of areas of QoL were identified in the seven papers. These included:

¹. A person is defined as 'obese' if he/she has a body mass index (BMI) of 35kg/m² or greater with co-morbidities, or a BMI of 40 kg/m² or greater without co-morbidities.

- Physical functioning **an**d feelings of healthiness (Van der Beck 2010).
- Freedom from dependency or disability (Cintra et al 2008), improvements in psychological and mental health well-being (Lazar et al 2009; Van der Beck 2010) and stability in mood (Song et al 2006).
- Improved self-efficacy towards eating (Van der Beck 2010).
- Resumption of or improvement in sexual intimacy (Cintra et al 2008; Lazar et al 2009; (Migliori et al 2006; Van der Beck 2010)
- Body image satisfaction (Migliori et al 2006), feelings of attractiveness (Mitchell et al 2008) and reduced feelings of body uneasiness (Pecori et al 2007)
- Enhanced self-image and self-esteem (Cintra et al 2008), including confidence (Van der Beck 2010) and positive thinking (Migliori et al 2006)
- Improved social acceptance (Van der Beck 2010) and greater involvement in the social and cultural performance domain (Cintra et al 2008)

The review also drew attention to the range of measures used to explore QoL issues and the impact of body contouring surgery and range in the quality of the available evidence. Some studies used instruments validated for other conditions exploring body image and another a body-contouring, tool (the post-bariatric surgery appearance questionnaire, Mitchell et al 2008) specifically developed for the study and thus not validated. Only one study (Van der Beck et al 2010) used a tool which had been previously validated (the Obesity Psychosocial State Questionnaire – OPSQ). Most studies involved a retrospective design and a few looked at changes prospectively over time.

Against this background, demonstrating evidence of improved QoL after body contouring surgery, further research is warranted to explore in greater detail what aspects of QoL change are both sought and valued by persons who either are seeking or have had body contouring. In addition, it would be useful to examine the perceived relevance and potential usefulness of the OPSQ, validated within the Netherlands, for a UK sample following body contouring.

Aims of the Research

The exploratory study reported below has two aims:

- 1. To explore the QoL perceptions, experiences and outcomes of patients who have undergone body contouring following significant weight loss.
- 2. To examine the relevance and potential utility of the OPSQ as a valuable QoL outcomes measuring tool for use in clinical research.

Overview of the Report

The report is divided into four sections. Section One outlines the methods used in the exploratory study. Section Two presents the findings from the interview based study. This is followed in Section Three by the findings on the use of the OPSQ. Section Four provides a discussion of the findings, drawing out key issues from the two sets of findings and commenting on the areas that, on the basis of the study findings, need to be included in a patient-centred QoL measuring tool. The report concludes in Section Five which presents the study's conclusions and recommendations.

SECTION ONE: STUDY METHODS

Introduction

Situated against this literature context, the purpose of the interview study was twofold: firstly, to gain further and in-depth insight into the quality of life experiences and longer term outcomes experienced by a sample of persons who had had reconstructive surgery following massive weight loss; and secondly, to explore participants' perceptions of the value of a recently validated, Dutch quality of life instrument, the obesity psychosocial state questionnaire (OPSQ) (Larsen et al, 2003), and thus to consider its value for use in a future in a larger-scale study. The results of the study aim to provide a solid foundation for the development of multi-centre research study, which would examine the long-term outcomes from body contouring in patients who have had massive weight loss.

Overview

The study adopts a retrospective focus, drawing on a sample of patients from one clinical location who had had reconstructive surgery following massive weight loss. The primary data collection method was an in-depth interview, undertaken in the participant's own home or suitable location. At the end of the interview, participants were asked to self-complete the OPSQ, and to provide a few written and oral comments on how well they thought it addressed their own concerns and achieved outcomes. Additional data on the medical history of the participants who took part in their study was also drawn, with their permission, from the medical records at the clinical location. A thematic approach to data analysis was taken.

Sample Selection and Recruitment

The research team retrospectively selected patients who had undergone body contouring in the past five years at the Plastic Surgery Department in one teaching hospital in the south of England. The recruitment strategy aimed to collect a diverse sample of 20 participants, including different age ranges (at least 18 years and beyond), diverse ethnicity and cultural backgrounds, and equal representation between women and men. Patients who were not fluent or had difficulty in understanding and speaking English were excluded. The plastic surgeons medical secretary sent out invitation letters and an information sheet to 42 potential participants, who met the eligibility criteria. The letter asked those willing to participate in the research to contact the lead researcher (JG), who responded to telephone calls, letters and e-mails, providing more information about the study and collecting baseline information on demographic details and type of body contouring procedures. Twenty-two people expressed a willingness to participate. However, at the point of setting up the research interviews, two withdrew because of a family crisis.

Data Collection Procedures

An in-depth interview was conducted with each participant, followed by the participant self-completing the OPSQ. Prior to data collection, the researcher obtained written consent. The participants were interviewed once in their home or a setting of their choice (for example, work environment after office hours). Interviews were audio-taped and transcribed verbatim. The researcher also took notes throughout the interviews and logged reflective thoughts that arose after the interview ended in a diary. The interviews were conducted between April and September 2011.

A semi-structured interview guide with open-ended questions was used. The topic guide covered areas such as:

- How did your weight affect your everyday life?
- What was the trigger to undergo reconstructive surgery?
- How did you feel about your body before surgery?
- How did you feel about your body after surgery?
- How has your lifestyle changed?
- What are your future hopes/expectations?

A number of prompts were also employed to encourage participants to talk further or explore issues in greater depth.

The OPSQ was selected because of the perceived relevance of its seven scales / domains and their close link to the physical and psychosocial concerns revealed in the literature review, presented in introductory section of this report. Permission to use the questionnaire was obtained from its Dutch devisors (Larsen & Geenen 2003), and it was translated into English. Its seven domains are: physical functioning, mental

health and well-being, body image/appearance, social acceptance, self-efficacy towards eating, intimacy and sexuality and social network. A number of statements (ranging from to walk long distances, to feel desperate, to be discriminated because of your weight, to walk up a staircase or steps easily, to struggle with undertaking your work to feel fat if you wear tight clothes, to believe that your weight could shorten your life, to have pain in your back, to have intimate contact with someone (see table 1 for further examples) is asked for each domain, in relation to pre- and post-surgery perceptions. The participant is asked the extent to which they agree or not, on a 5-point Likert-type rating scale (1 = almost never, to 5 = almost always). According to Van der Beek et al. (2010. p. 37), all the domains have 'a moderate to high reliability'.

| Physical Health | Mental Well- Being | Self-esteem / Appearance | Social Judgements | Self-Efficacy towards Eating | Intimacy / Sexuality | Social Network |
|---------------------------------------|---------------------------------------|---|--|---|--|--|
| To have pain | To be disappointed in yourself. | To feel like a fat person if someone takes a photograph. | To be discriminated because of your weight. | To have eating habits under control. | To have problems with sex because of your weight. | To initiate contact easily with other people. |
| To be troubled with your joints | To feel happiness. | To feel ugly. | To receive negative remarks from people concerning your weight. | To feel powerless over your eating habits. | To be disappointed in yourself. | To visit friends and acquaintance. |
| To have pain in your legs. | To feel desperate. | To feel fat when strange people stare at you. | To be called after on the street because of your weight. | To control your eating behaviour. | To have problems with intimacy because of your weight. | |
| To be able to do a lot of work. | To feel gloomy. | To feel pretty. | To notice that people are talking about you. | | To be cuddled. | |

Table 1: Seven Domains of the OBSQ and Examples of Statements

The duration of the interview varied between 1 to $2\frac{1}{3}$ hours. When the interview concluded, participants were given a short (10 minute) break to relax and refresh themselves. They were then asked to self-complete the obesity psychosocial state questionnaire (OPSQ) and to give the completed version to the researcher. This took on average about 10-15 minutes. Once completed, participants were asked about their perceptions of the value of the OPSQ in drawing out and addressing their concerns

and outcomes, and any areas they felt it omitted to cover. The researcher made notes of their comments in a research diary. The interviewer then sensitively drew the interview to a close.

Subsequent to the interview, with the participant's permission, relevant clinical data were abstracted from the medical records. The plastic surgeon's medical secretary searched for and provided the researcher with the medical records of the 20 participants. The researcher read the medical records retrospectively in the Plastic Surgery department and gathered demographic data and data in regard to comorbidities, body mass index, eating behaviour and lifestyle, bariatric surgery uptake, and body contouring procedures. The data were recorded and stored on a password protected memory stick.

Data Analysis

The interview data and the data obtained from the medical records and the researcher's notes/diary were organised using the computer qualitative software package, Nvivo7. Each interview was read and reread by the lead researcher (JG) to develop a thematic coding scheme. The analysis used techniques put forward by Braun & Clark (2006). The researcher initially carried out a familiarisation analysis, reading and re-reading the data and noting initial ideas. Codes were developing using both open and selective coding processes in a systematic fashion across the entire data set, collating data relevant to each code (for example, body shape and size, weight loss, weight gain, lifestyle restriction and daily challenges, poor self-esteem, selfidentity dilemmas, depression, intimacy struggles, poor social functioning, increasing body esteem, social acceptance). Initially 115 codes were developed. Examples of the codes and selected content were then read by another researcher (AFL), confirming or otherwise the relevance of the codes for the data. The two researchers discussed the codes, considering links between the codes with a view to form a set of overall themes. After a number of iterations, four final themes emerged, two for presurgery and two for post-surgery, each with a number of sub-themes.

To enhance the trustworthiness of the data, the participants were given the opportunity to comment on the emerging findings. Two participants examined and validated the interpretation of the findings. However both participants pointed out the

importance of the areas of post-operative pain and complications following body contouring procedures, that were not explicitly indicated in the emerged themes. They commented on the significance of these areas to participants' QoL.

The data arising from the OPSQ was analysed using the Statistical Analysis Software (SAS). The psychometric procedure including reverse scoring put forward by Larsen et al. (2003) was employed. Frequency distribution tests of the pre and post op data were undertaken. The paired t test, at the 5% significance level, was used to make pre and post-surgery comparison. Other numerical data were analysed using appropriate descriptive statistics and graphical data presentations.

Ethical Approval

Ethical approval was obtained from the South West London Ethics Committee 4 (Appendix 1 & 2). The ethical principles of the participant's rights to autonomy, beneficence and non-munificence were strictly followed (Beauchamp & Childress 2001). Information leaflets (Appendix 3) were distributed to all potential participants and to their General Practitioners (GPs, letter - Appendix 4) giving full details of the study, including benefits and risks. The leaflet also contained information concerning the patient's right to discuss participation with their GP or a family member and the right to withdraw from the study at any time. Issues relating to confidentiality and privacy were guaranteed by the employment of pseudonyms and storage of data on a password-protected database (Consent form-Appendix 5). The interviewer (JG) approached each interviewee with sensitivity and conducted the interview throughout in a supportive manner, being sensitive to any observed distress. Where appropriate, the participant was given the opportunity to take a break from the interviewee's released tears, or anger or anxiety but gained equilibrium to continue the interview.

SECTION TWO: THE STUDY FINDINGS

The Study Participants

Twenty white adult patients were recruited. Of the 20 patients, 18 were female and two were male. The mean age of the patients was 46.2 years (range 29 to 63 years). Six participants underwent single type body contouring procedures and fourteen had multi-stage procedures (Table1).

| Single Procedure Type | Number of Patients | Correction/ Revision |
|--|-----------------------|-------------------------|
| Fleur de Lys Abdominoplasty | 2 | |
| Apronectomy & Abdominoplasty | 1 | 1 |
| Abdominoplasty & Hernia Repair | 1 | |
| Lower body lift | | |
| Multi Staged Procedure Type | | |
| Lower body lift / Upper body lift / Brachioplasty / Thigh lift | 5 | |
| Lower body lift / Upper body lift | 2 | 2 |
| Fleur de Lys Abdominoplasty / Bilateral brachioplasty | 2 | 2 |
| Fleur de Lys Abdominoplasty / Mastopexy / Thigh lift | 1 | 1 |
| Fleur de Lys Abdominoplasty / Thigh lift | 3 | 3 |
| Fleur de Lys Abdominoplasty / Thigh lift / Mid arm lift | 1 | |

Table 1: Body Contouring Procedures

The mean BMI *pre-bariatric* surgery among the16 patients who chose obesity surgery was 51.11kg/m² (range 40-70 kg/m²) and the mean BMI pre-dieting and lifestyle changes among the remaining 4 patients was 48.73 kg/m² (range 38.4-55.3 kg/m²). The mean BMI *pre-body* contouring was 25.9 kg/m² (range 20-35kg/m²) for the 20 participants and the interval between bariatric surgery or weight loss and body contouring was 2-5 years (range 1-5 years).

A number of co-morbidities was experienced by the participants (Table 2), including improvement and reduction in the majority of the co-morbidities. For example, the three people with type 2 diabetes had experienced no ongoing symptoms after massive weight loss. A similar positive consequence from the bariatric surgery was also apparent amongst 5 participants who were hypertensive prior to surgery, but it was no longer present after the weight loss. Contrastingly, very small improvements were apparent among participants with mobility problems and depression, following bariatric surgery or weight loss through diet and exercise as highlighted.

Table 2: Co-morbidity

| Form of Co-morbidity | Pre-Bariatric Surgery Number* | Post-Bariatric Surgery Number |
|------------------------|----------------------------------|----------------------------------|
| Diabetes mellitus | 3 | 0 |
| Hypertension | 4 | 1 |
| Asthma | 6 | 1 |
| Sleep Apnoea | 3 | 0 |
| Mobility problems | 16 | 12 |
| Arthritis | 4 | 4 |
| Depression | 20 | 14 |
| Anxiety/Panic Attacks | 3 | 1 |
| Deep Venous thrombosis | 1 | 1 |
| (DVT) / Pulmonary | | |
| Embolism (PE) | | |

*Gastric Band (primary) = 9 (secondary redo = 5. 3 bypass and 2 sleeve). *Gastric bypass (primary) = 7

Interview Study: Core Themes

The interview analysis detailed a number of recurrent themes. Four core themes emerged, two each relating to the pre- and post-surgery situation (see Table 3): fragile identity; restricted lifestyle and function; identity transformation; and radical shifts in lifestyle. The following sections will present the four core themes and associated sub-themes.

| Time Phase | Core Themes | Sub-Themes |
|--------------|--|---|
| Pre-surgery | 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 |
| Post-surgery | 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 |

Table 3: Core Themes and Associated Sub-Themes

The Pre-Surgical Body

1. Fragile Identity

This core theme relates to the participants' perception of identity and about how their identity as a person, in work, at leisure and in personal, social and intimate relationships is expressed as 'fragile'. All the participants felt threatened by body shame and body anxiety because of excess skin after massive weight loss. Twenty participants highlighted how the weight loss helped further a passage into the sort of active lifestyle they desired, making the body as part of an ongoing 'identity project'. Nonetheless, the loose hanging skin seemed to represent the clearest failure in the maintenance of the global beauty ideal. They portrayed a strong desire for beauty, distinction, dignity, social integration and a relatively stable identity of themselves.

The core themes highlight the problems that people noted about body image ugliness contributing to body shame, body anxiety, intimacy difficulties and a misrepresentation of their identity. 'Being ugly' was often seen as unattractive, disempowering, triggering negative thoughts, depression and social isolation. Other features mentioned were a strong desire for beauty and social integration and beauty being highly valued in Western culture.

In the context of their daily lives all of the participants alluded to being caught up in a variety of differing encounters and circumstances, each of which may call for different 'presentations of self' in relation to whatever was demanded of a particular situation. The majority voiced concern that diverse work contexts promoted feelings of belittlement, insignificance and weakness because their identity and behaviour were 'subordinate', based on bodily insecurity. Comments suggested that what remained of the true self is frequently experienced as empty and inauthentic. Iona, a 39-year-old palliative care carer, commented:

'I hated my body shape after the weight loss...ugly. I felt empty, sad and hated work situations. I couldn't actually cope some days. I didn't feel confident enough to apply for new jobs. Thin people intimidated me because they always had ammunition, beauty. All they had to do was look at me'.

Jewel, a 37- year-old medical administrator, stated:

'Yeah, going to work became a big issue because I hated my appearance and identity. I was disgusted with myself, hanging skin, gi-normous. I was fragile because I reacted to different work and social environments'.

Estelle, a-53-year-old carer explained,

'It was awful for the kids, when I used to take them to school; I was the big fat Mum at the gate. Always wore old ladies raincoats, you know never had nice shorts. I was never invited out with the other slim Mums. I never bonded and made close relationships. I also used to say to my husband if we were invited out socially, that I wouldn't want to go. I used to make excuses. And I tended to have friends with people that were big...similar identities'.

Grace, a-51-year-special needs carer, told the researcher,

'I lacked confidence in my body more than anything else, absolutely mortified with my shape and size. You're just...you're accepted differently in society. People stare as if you're a freak. I couldn't go on fair rides or swim. If I went into a pub people turned round and stared at me as if to say what are you doing here? The expectation of others was very threatening & I used to sit down 'trembling', asking for a double gin and tonic.'

Such beliefs seemed to leave the participants vulnerable to status loss, stereotyping, and a sense of incompetence in several domains of their daily life.

Associated Sub–Themes of 'Fragile Identity'

Body Image Ugliness

This sub-theme portrays body image² ugliness as being profoundly connected to selfidentity, the participants implying that such a dilemma was disruptive to the expression of self, function and well-being. Physical appearance and body image were seen as ugly and problematic because of the loose hanging skin. Unsurprisingly, the perceived appearance ideal for women was determined by the 'thin ideal' of Western feminine beauty; this ideal was described frequently as predominately 'being thin, young, and tanned with long hair'.

² Body image relates to a person's perceptions, feelings and thoughts about his or her body, and is usually conceptualised as incorporating body size estimation, evaluation of body attractiveness and emotions associated with body shape and size (Grogan 1999).

Views expressed among the women simultaneously evoked self-hatred / shame and an anxiety about looking good, youthful and beautiful. Grace, a 51 year old special needs carer, provides one example:

'Oh, my body image was awful. It was just so ugly. I looked and thought it doesn't really look much different than the fat. At least the fat bulged it out but this was just like hanging horrible skin'.

The men too seemed to conform to the narrowly defined physical muscular type portrayed in the media providing the inspiration to work on the body. Felix, a 56-year-old self-employed plumber, asserted:

'I was disgusted with myself... "shame and strain" prevailed in my body. I wanted to get my body back to be muscular, fit and youthful; to be 25 again and feel attractive'.

For most participants, the ugly body image impacted on their self-esteem promoting mood swings, severe body hatred and depression. This was couched in terms of identity and illustrated how an ugly body shape was implicitly assumed to be associated with a sense of powerlessness in the major domains of daily life. This connection is made explicit in the following quotes. Aaron, a 44year-old-computer company administrator, recalled:

'I felt 'ugly', 'deformed', I had 'bat's arms', I had severe body hatred. I felt depressed; I had mood swings and was 'locked into myself' and struggled with daily life'.

Prudence, a 58 year old retired medical administrator, said:

'I was 'flappy' and in a 'mess'. I hated my body and struggled with my self-esteem. There was lots of loose hanging skin everywhere. It was pretty disgusting and I was unable to go swimming or sunbathe'.

The accounts put forward emphasised seeing the body as an 'object', being remote from their body in a physical space removed from the physical body because of the 'ugliness'. For example, Nicole, a 29-year-old qualification's co-ordinator for an awarding body-hospitality, pointed to ways that 'being ugly' was problematic for her:

'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'.

In a similar vein, Harriet, a 62-year-old retired nursery nurse, said:

'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'.

The accounts of the loose hanging skin and poor body image represent the presurgical body as an obstacle to participating in the activities of daily living and, by implication, a source of disadvantage.

Feeling Socially Marginalized

Being under surveillance, not fitting into society's normative rules and receiving constant reminders of one's size and shape through the social environment, were important features of this sub-theme. The participants saw themselves as targets for observation and judgements, marginalised within society. Being visible and being aware of others looking was expressed as troubling. For example, being visible and watched by others evoked feelings of shame and a sense of being hurt. Jewel, a 37-year-old medical administrator, disclosed:

'I was on the cross-trainer in the gym and I thought, who's that clapping? And it was the loose skin on my stomach. People were looking. I experienced intense body shame. I was plagued by my appearance'.

Similarly, Sophie, a 47-year-old hairdresser, remarked:

'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'.

While some women and men were critical of being watched in the context of their daily lives, others voiced the notion of hiding. The women in particular positioned themselves as actively avoiding being seen on the beach or in the swimming pool. This appears to be an imposed subject position.

Trudie, a 50-year-old manager of a community/day centre, told the researcher:

'I didn't go swimming with my children. Erm, to give you a really sad incident I used to wear a 'mack' on the beach, made me invisible. I would sit in the middle of the beach, in this 'mack', and all the slim girls would be in their bikinis'. Although Trudie felt uncomfortable about intentionally hiding from the gaze of others she also spoke about women being valued for the skinny body ideal, to some extent, implying that the beach is a context where ugly visible bodies are targets of stares and comments. The gendered politics of the beach and swimming pool were highly significant to the women.

Feeling Depressed

This sub-theme implied that suffering from 'body shame^{'3} and 'body anxiety' was associated with bouts of depression or severe depression and in some instances transient feelings of suicide. This was characterised by low mood accompanied by low self-esteem, poor body image and attempts to self-harm.⁴⁴. All the participants appeared to have experienced bouts of depression with the majority being treated with antidepressants. Grace, a 51-year-old special needs carer, commented:

'Oh, I felt dreadful. I was very unhappy, just experienced such low selfesteem. I was on depression tablets, Prozac, for a long time'.

Jewel, a 37-year-old medical administrator, reported a similar experience:

'I suffered from bouts of depression. I was on Prozac. I stopped taking it the week before I went for the lower body lift operation'.

Throughout the interviews, childhood events were disclosed as affecting participants' relationships to their bodies and identity. Change and deterioration in body image played a role in reactivating lingering marks of childhood trauma that evoked depressive states. In several cases, participants recounted terrifying memories of abuse – physical, psychological, emotional or sexual – or talked about parental neglect. The next three extracts illustrate this. Jewel commented:

'My mum was an alcoholic and the drink came first. She was physically and mentally abusive and on some occasions I couldn't go to school until the bruises subsided'.

³ Body shame exists where there is a discrepancy between internalised cultural standards and the perceived actual shape and size of the body. Shame is not solely about the body, but about the self, because achievement of the standard is connected to one's identity (McKinley & Hyde, 1996).

⁴ Self-harm is the act of deliberately harm to your own body such as cutting or burning or taking an overdose of tablets.

Sophie, a 47-year-old hairdresser, also explained:

'I had a horrible childhood. My mum was hospitalised with depression and my parents split up. I slept rough in a car. I cut my arms as a cry for help. I ended up in a children's home because mum was physically abusive. This affected my identity and I was always crying'.

Guy, a 55-year-old retired roofer, told the researcher:

'I suffered severe physical abuse in childhood. My father hit me persistently with a cricket bat and a chair...broken nose, black bruising everywhere. I never felt loved by my parents. I had huge problems with alcohol addiction as a teenager'.

The lingering marks of childhood events, and there were many, came to the fore for most participants and appeared to influence identity issues and emotional states.

Sexual and Intimacy Difficulties

Participants reported that intimacy and sexual relationships had been greatly affected by their poor body image, body shame, and appearance anxiety about sexual attractiveness. The women in particular alluded to high body self-consciousness during sex, acknowledging low sexual esteem,⁵ less confidence in their sexual functioning, and emotional disengagement from sexual experience. Nicole, a 29-year-old qualifications co-ordinator, expressed this sentiment:

'Oh yeah, definitely – problems with intimacy, more body shame. I was concerned that the loose hanging skin would smother him. The lights were off all the time. I felt emotionally detached from the sexual experience'.

Whitney, a retired 63-year-old human resource manager, went on to say:

'Um, well I think I had huge issues with sexual intimacy, you know showing myself, and... you know undressing with my back to my husband. I suppose feeling very ashamed about my body and hating... um, avoiding intimacy'.

⁵ Sexual self-esteem has been defined by Zeanah & Schwarz (1996) as one's affective reactions to the subjective appraisals of one's sexual thoughts, feelings and behaviour.

Whitney's accounts revealed a coping strategy of 'avoidance' for directly managing the emotional distress arising from intimacy issues. Although withdrawing was evident, the significance of sexual rejection and interpersonal tensions were downplayed and might have helped contain distress.

The participants implied that sexual problems led to the breakdown of relationships, feelings of failure, depression, loneliness, with consequential decline in quality of life.⁶

Five female participants felt that the hanging skin led to more surveillance, more body shame, disrupting sexual experience. The poor sexual self-esteem seemed to trigger chronic body monitoring, more intense shame and sexual disengagement. Bianca, a 47-year-old paramedic, told the researcher:

'Um, the body shame had an effect on my sexual relationship with my husband. I um, possibly the downfall of my marriage....'cause I'm now single. It was very tough for both of us. I think we were depressed'.

Fifi, a 42-year-old market café manager, indicated:

'The poor sexual esteem led to problems within my marriage. Any arguments: You're so useless. You can't even look good. I'd nobody else to blame but myself. I got divorced'.

Kate, a 38-year-old cleaning service manager, avowed:

'Oh, me and my husband don't have sex....so! 'Cause we're not together any more. We're just friends and live in the same house because of the kids'.

One of the male participants pointed to a slightly different aspect. He couched sexual success as looking good and achieving an appearance and sexual self-identity that attract sexual attention. This particular participant felt a pressure to conform to societal ideals and he was concerned with sexual prowess and investing in surgery to improve appearance and sexual well-being. Felix, a 56-year-old self-employed plumber, disclosed:

⁶ The term quality of life (QoL) was first used in the early 20th century by Pigero, an English economist, whose perception was purely in economic terms. However, in more recent years the concept of health related QoL developed.

'Entering new relationships was frightening. I did not like to display my loose hanging skin and ugly body. I wanted to be fit, youthful, sexy and have a V shaped chest and a slim lower body'.

2. Restricted Lifestyle and Everyday Living

The second core theme emphasises lifestyle restrictions and problems with physical function because of loose hanging skin. All the participants had benefited from bariatric surgery or from dieting and lifestyle changes to facilitate weight loss. Ironically, another danger now came into view – lifestyle restriction. In some instances, participants were further disrupted by the loss and insecurity accompanying the development of chronic conditions such as arthritis.

The restrictions that were expressed implied strong links between loose hanging skin that limits capacity and freedom in daily activity. All of the participants explained that reformulating normality after massive weight loss was by no means unproblematic. For instance, in many cases, mobility and physical activity were often restricted, triggering rage, fear, disappointment and depression.

The participants reported striking instances of restriction in physical activity such as playing with their children or engaging with 'family fun activities' in the park. Each one avowed strongly and supplied detailed information about their restricted physical activity. Some, however, went on to talk about having to face the facts about what arthritis entails and the inevitable end-point if they lived long enough for arthritis to take its full course.

The following extracts illustrate a range of features of this restricted lifestyle. Felix, a 56–year-old plumber, pointed to his not being able to take part in sport with his children:

'I was very conscious of the massive loose hanging skin around my stomach and the tops of my legs. I could not engage in sporting activities with my children. I felt miserable and depressed'.

Nicole, a 29-year-old qualifications co-ordinator, pointed to her restricted mobility:

'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'.

Finally, Trudie, a 50-year-old manager of a community/day centre, talked in terms of effects on her getting around going upstairs and moving at work:

'You've lots of loose skin....it makes noises where it all moves together and it's just clapping. It's hard walking up stairs and moving at work. I have lost all the weight but I still felt unable to do all the things I wanted to do'.

The incapacity or instability in dealing with daily activities also reflects accounts of longstanding marks of obesity. Connected with this specific account were disclosures of knee-pain, back pain and discomfort, arthritis and stiffness that impacted on physical function and identity. Again, a few extracts provide a flavour of this. Both Ruby, a 46-year-old-nursery nurse, and Guy, a-55-year-old retired roofer, talked about their weight and their arthritis:

'I've got quite bad arthritis in the right ankle. I try and jog and use the little trampoline over there. So the exercise can aggravate it and cause lots of pain. The pain and everything is awful'. (Ruby)

'My mobility was very limited when I was very heavy, I had severe arthritis in both knees. When my body mass index dropped down to 28 I think..... I had one (right) knee replacement and I'm waiting for a left knee operation. I have a walking stick now and cannot return to my job as a roofer'. (Guy)

Here, many of these accounts, especially mobilisation difficulties, are mentioned as a legitimate means of disempowering and restricting lifestyle. Employment prospects and being unable to 'maintain an edge' amongst fit colleagues also seemed troublesome.

Associated Sub-Themes of Restricted Lifestyle and Everyday Living

Chronic illness

This sub-theme is associated with 'gloomy' accounts of chronic illness that further impacted on identity and quality of life. Two particularly relevant examples are multiple sclerosis⁷ and arthritis. One of the participants (Heidi, a 36-year-old administrator for a training company) who has relapsing/remitting multiple sclerosis (MS) recounted her memories of pins and needles and numbness in her hands and feet and blurred vision before the final diagnosis. Among the experiences she recalls are being told she might have difficulty walking, and alarmingly, the need of a wheelchair. Much of her experience is masked with a sense of strangeness, that she is both herself and not herself. She also tells of the huge effort required to convey the news to her husband and family.

'I had been overweight and lost it all... now it's MS, with its terrifying bodily effects, I felt numb and petrified. I told my husband and he had a nervous breakdown. I told my friends... sent round robin e-mail... I don't mind how you deal with this...cry...talk but I'm going to get on with it'. (Heidi)

Although Heidi is living on the edge of panic, her self-esteem is not shattered and she appears to be caught up in hope and determination.

Others portrayed poignant accounts of arthritis in joints that triggered feelings of worthlessness because of mobility restrictions. They described a sense of being imprisoned, not able to perform daily tasks with skill and grace. A few alluded to a sense of oppression, ruined by bodily pain, almost left to fall apart, worrying about the progression of arthritis and altered appearance. Harriet, a 62year-old retired nursery nurse, indicated:

'I had problems with walking, travelling in the rush hour and working because of the arthritis. I work with energetic children in a nursery and my role involves lots of activity and I was in physical decline, feeling anxious about being a burden'.

Yet others reported on the feature of long-term illness related to cardiovascular health threats. Those reporting higher blood pressure levels and problems associated with deep vein thrombosis (DVT) and pulmonary embolism (PE) felt their conditions were well managed with oral medication and carefully monitored by their General Practitioner (GP). The desirability of the

⁷ Multiple sclerosis is an inflammatory disease in which the fatty myelin sheaths around the axioms of the brain and spinal cord are damaged, leading to a broad spectrum of signs and symptoms and physical and cognitive disabilities.

participants to manage their lifestyle was salient; some appeared more prone to lifestyle stress than others.

Eating Habits Pre-Occupation

This sub-theme highlights the problems that people noted with sustaining weight loss. Seen as important was the dependence on the bariatric intervention in regulating eating patterns. All the participants had lost huge volumes of weight, up to 133kg in one case, and seemed dependent on 'stomach control' being crucial in regulating unrestricted eating patterns. A few alluded to the bariatric intervention as a code of discipline that regulates poor eating habits. Aaron, a 44-year-old computer company administrator, told the researcher:

'Yeah, the gastric band controls the eating and I would never manage without it. Although I had binge eating habits for years, I try not to use food as a crutch. I am aware of the nutritional value of what we eat but I would feel panicky if I did not have the band'.

Fife, a 42-year-old market café manager, observed:

'I think the worst part was when the band came out though. That was just.... like my security blanket was taken away. And I was dropped like a hot potato by the National Health Service (NHS). They didn't want to know. Chucked me on Reductil (weight loss pill). Five years I was on that before the redo bypass operation'.

The majority of the participants said that the massive weight gain and eating habits were powered by psychological trauma associated with dysfunctional family dynamics, such as living with an alcoholic partner or parent, parental divorce, sexual abuse or physical abuse. There was seemingly a close link between the characteristics of this sub-theme and the set of issues described in the 'feeling depressed' sub-theme outlined above, thus illuminating the impact of childhood trauma.

The women stated that learned emotional overeating was a 'crutch', a coping strategy that developed in some cases into binge eating and bulimic behaviour. Three female and one male participant attributed weight gain to mountainous portions, poverty or a sedentary life style. A few participants had taken part in an outpatient 'binge eating disorder' programme with a psychotherapist, in an attempt to understand bulimic patterns of food control. But the binge eating programme did not appear to enable

Sophie, a 47-year-old self-employed hairdresser, to overcome disordered eating, and she also had further psychological therapy, but to little avail.

'I had cognitive behaviour therapy $(CBT)^8$ for binge eating disorder but it did not help. For me, dragging up the past did not help. I used to go home and binge eat after the therapy'.

Most participants seemed trapped inside long standing body habits and depended on bariatric surgery for 'stomach control' to maintain a BMI < 30 as a pre-requirement for plastic surgery.

Four female participants lost weight through dieting and exercise. Among the four, two joined weight watchers to support their desire to lose weight, and although success accounts emerged as a result, they hinted that informal labelling associated with reading weights aloud by the Weight Watchers Leaders, at weekly meetings, triggered strong identification with weight stigma.

Summary: The Pre-Surgery Perspective

The pre-surgical perspective shed a great deal of light on the experience of massive weight loss on the participants QoL, embracing two core themes. The first theme 'fragile identity' provides at least a glimpse of the identity threats and 'paralysing fears' people described in regard to body shame and body anxiety. The four associated sub-themes including 'body image ugliness', 'feeling socially marginalised', 'feeling depressed' and 'sexual/intimacy difficulties' provided powerful insights and poignant awareness of what is happening to the participants, in everyday life.

The second core theme 'restricted lifestyle and everyday living' offered further insight into the experience of 'inability', and in some instances of intense frustration at what the participants can no longer do. The two associated sub-themes attend carefully to 'chronic illness' and 'eating habits pre-occupation'.

The participants' accounts presented the pre-surgical body as a major obstacle to participating in daily activities, pursuing professional goals and sporting activities.

Their pre-surgical body was also a disadvantage in social engagements and a barrier to intimacy, triggering psychological pain and suffering that compromise quality of life. Low self-esteem, poor body image, fragile identity and disabling depression seemed to trigger participants' motivation for pursuing body contouring procedures. Their accounts also reflected media ideals and cultural values that to some extent deem it appropriate to be preoccupied with appearance and to invest in improving it.

The Post -Surgical Body

3. Identity Transformation

This core theme focuses on the post-surgical body, in terms of the deep impact and effects body contouring had on the participant's upward transformation and acceptance in social space. All the participants said that diverse body contouring interventions helped refashion their bodies, hastening an integration of the physical and psychological self. They talked about the process of discarding stigmatized identities and transitioning towards new identity meanings that are 'normal' in comparison to the former stigmatised 'fat/ugly' category.

The participants placed considerable emphasis on 'letting go' the past and its baggage. For some respondents, letting go of the damage and stigma of being fat was fairly rapid but progress evolved slowly for others, especially for those who experienced barriers, identity interruption and emotional distress. Success stories portrayed the characteristics of a typical upward transformation, the new appearance/body image cultivated by the surgery coupled with a range of positive emotions such as pleasure and beauty, and feelings of belonging and social integration.

The associated four sub-themes provide vivid descriptions that the participants allude to in regard to 'changing body image', 'social acceptance', 'undoing depression' and 'sexual vitality'. The response of having body contouring is a significant one. The participants were working through the body modification markers to be radical, different and daring in their appearance and onto a new identity.

⁸ Cognitive behavioural therapy is is a counselling approach that aims to manage problems in the 'here-

The following extracts illustrate a range of features of identity transformation. Prudence, a 58-year-old retired medical administrator, explained:

'A new powerful self emerged. I am happy with my body shape and selfperception. The reconstructive surgery dramatically altered my physical appearance and my inner world too. The journey has birthed a new personality and identity'.

Ruby, a 46-year-old nursery nurse, said:

'I just absolutely love the reactions of people we haven't seen for a long time. They're all really amazed at my modified body and new identity. I think 'me'...the 'new me' unhooked from my over-weight years and its such a positive thing'.

Others reported 'identity lag' ⁹ in respect to their bodies changing faster than their internalised social perceptions of body image and appearance, resulting in disorientation or feelings of uncertainty. This seemed to confuse the participants' ability to exit stigma labels because the lag appeared to make it difficult for some to perceive the transformed body as their own. Grace, a 51-year-old special needs carer, expressed this sentiment:

'Of course you do need counselling 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'.

De-labelling and shifting from a redundant label that had outlived its usefulness were problematic for Grace.

Of the enthusiastic transformers, a few reported progressing well on the stigma exit but reached a point when obstacles appeared to alter identity meanings. One respondent alluded to the consequence of being diagnosed with multiple sclerosis that triggered identity exit interruption. Others reported difficulty sustaining weight loss over time and felt threatened by weight gain and fear of aging.

and-now' by changing thoughts and behaviour.

⁹ An 'identity lag' form of identity interruption in which a mismatch between internalised identity standards and reflected appraisals occurs as a result of identity standards that have not yet evolved to match a transformation in social status (Granberg 2011).

Overall, a diverse range of features shed light on the respondents' identity transformation journey. The majority appeared to be recovering from a body objectified¹⁰ through media ideals, moving upwards towards a greater sense of embodiment.¹¹

Associated Sub-Themes of Identity Transformation

Changing Body Image

This sub-theme focuses on important features that influence the changing body image in the post-surgical body. All the participants implied that body contouring was remarkable in terms of enhancing body image, self-esteem and attractiveness. In a similar vein to transformation, the process appeared to be transitory. Some associated scar severity with long lasting intensity and describing it as a defining element of their appearance and self-perception. The salience of scar severity and individual values on the importance of appearance seemed to be influenced by subjective traits, such as scar visibility and reactions to the scarring. The accounts fell into two broad categories including early and late scarring.

Firstly, the early scarring accounts were explicitly linked to subjective perceptions within the first six months following surgery. For example, ten women mentioned looking 'deformed', 'ugly', 'shocking', and where the reactions of others mattered. Nicole, a 29-year-old qualifications co-ordinator, explained:

'I'm like Frankenstein.¹² 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'.

Prudence, a 58-year-old retired medical administrator, said:

'The scarring is immense. I look like a rag doll underneath my clothes. I do not like people looking at my body'.

Estelle, a 53-year-old ambulance driver/carer, recounted:

¹⁰ Body objectification is a term that describes the act of treating people as de-personalised objects of desire instead of individuals with sensitive personalities.

¹¹ Embodiment is a term that describes connectedness between mind, body and emotions.

¹² The name 'Frankenstein' is often used to refer to the monster itself, as is done in the stage adaptation by Peggy Webling.

'I had massive scarring and I still have lots of stretch marks. I'm never going to look good without clothes on. I will never look like a glamorous young woman.

As these quotations show, early scarring was troublesome, being perceived as a salient feature that impacted on body esteem and the identity transformation process.

Secondly, the late scarring accounts were more enthusiastic alluding to increased body esteem and more dramatic shifts in appearance. The decline in salience was mainly attributed to the timing (1-5 years) following body-contouring procedures, many becoming accustomed to their new body image. For instance, several respondents described their scars as '*fading*', '*shrinking*' and '*looking normal*'. Grace, a 51 year-old-special needs carer, asserted:

'The scarring was not really nice... at first, but now it's a few years on, they just look like thin, faint lines. They're shrinking away'.

Whitney, a retired 63-year-old human resource manager, told me:

'I feel very different about myself now, a significant impact, for the first time in years I actually feel more or less normal. I started to take huge pleasure in clothes. I'm recovering lost time'.

Late scarring identifiers differed from earlier ones in that they disclosed less concern about the scarring. They were trying to recover lost time, invest in wearing lovely clothes and celebrate the new sense of self and identity.

Social Acceptance

The positive creative shifts described in the identity transformation core theme have connections with the powerful sub-theme of social acceptance. After body contouring, the participants saw themselves as being dynamic and shifting in their identity; they were being accepted and integrated into society rather than stigmatised and downgraded. Success stories are avowed in the following excerpts. Ruby, a 46-year-old nursery nurse, positively said:

'I'm jogging round the park now...that's out in public. I wouldn't have done that before'.

Nicole, a 29-year-old qualifications co-ordinator, observed::

'Yeah, I'm very comfortable with going out now; especially wearing tight dresses, and I'm getting married in August'.

These 'success stories' suggest that body contouring surgery can help to create reduction in mood swings, happiness and an improvement in quality of life but that validation also firmly lies in the social world.

The majority seem to carry internalised notions of achieving active participation in local communities and becoming highly dynamic and involved. This sentiment is expressed in the following extracts. Aaron, a 44-year-old computer company administrator, told the researcher:

'I am more active in a local theatre group. I joined a writing group on line to connect with new people. I met my husband in the writing group. We are hoping to write some plays together'.

Prudence, a 58-year-old retired medical administrator, recalled:

'I feel more confident and see lots of friends. We go to the theatre and cinema. I would like more travel and international adventure'.

The positive psychological effects that come with aesthetic surgery enabled greater social acceptance. Although beauty, slenderness and visibility are highly gendered issues they were constructed as positive and empowering in contemporary society.

Undoing Depression

Changing body image and social acceptance sub-themes appeared to be accompanied by mood changes. This particular sub-theme 'undoing depression' is indeed more marked with positive mood shifts and the tension of never feeling completely safe from the threat of childhood demons. It illustrates the internal and external shifts that are encompassed in the overall core theme of 'identity transformation'.

Eighteen participants alluded to a new sense of body after the 'body work', slowly translating into positive self-esteem, self-confidence, and an increased sense of psychological well-being and energy levels. Several commented that body-contouring surgery helped modify the relationship between body image concerns and depressive symptoms. Noticing shifts in body image was reported as a turning point and seemed

to enable the participants to consider body image in a more positive way. Among those with success stories, most reported sustaining a positive mood without the ongoing use of prescribed antidepressants. Examples of undoing depression are portrayed in the following quotes. Nicole, a 29-year-old qualification co-ordinator, said:

'I feel so much happier. The doctor was going to give me more antidepressants but I didn't want to take them. I had therapy for the panic attacks'.

Jewel, a 37-year-old administrator, told the researcher:

'I always envisaged that my mood and self-confidence would be better but I never visualised how much. I can't comprehend the massive, positive impact this had'.

Fourteen participants highlighted that when they sustained weight loss over time, partners, friends and colleagues became accustomed to their new appearance and ceased commenting on it. This transition was reported to lessen the intensity of social feedback, served to help internalise self-acceptance, improve mood and facilitate identity shifts. Kate, a 38-year-old cleansing service manager, explained:

'That was the turning point really. People stopped commenting on my appearance and I stopped taking Prozac. I was no longer the worthless fat repulsive blob. I was normal and feeling fantastic'.

Six respondents appeared to have ongoing depression and anxiety symptoms characterised by appearance fixing or underlying thought patterns. Among those who alluded to appearance fixing, two talked about emotional turmoil – the heightened use of internal, depressive, dysfunctional thoughts coupled with a desire for social isolation. Indeed, the concerns were related to body dysmorphia,¹³ and were recounted clearly by Chloe, a 44-year-old mental health nurse:

'It's taken me quite a few years to get used to the scarring. I used to be, still am a bit dysmporphic. That triggers depressive thoughts. Erm, I don't think that will ever change'.

This particular respondent also mentioned experiencing transient suicidal feelings that appeared to have lessened following sustained weight loss and the appearance change after surgery.

¹³ Body dysmorphia is a condition where a person spends a lot of time worried and concerned about their appearance, often with a slight or imagined defect.

Sexual Vitality

This sub-theme is linked to growing confidence and an enhanced sexual well-being and sexual activity following surgery. The women in particular pointed out that they had to some extent moved beyond the sexualised portrayal of women in the media, which is heavily appearance focused, to a competence focused position. Since surgery most claimed that their attitude towards their appearance had changed; this included the application of beauty products, jewellery and make up, grooming, exercising regularly, and taking interest in contemporary lingerie and designer fashion. For all participants, sexual vitality proved an important turning point, benefiting quality of life and well-being. The influence of the partner's view of their visual appearance seemed to contribute to validating their post-weight loss bodies.

Sexual satisfaction during sexual experience appeared to be more enhanced too because in this context bodies were available for viewing and linked to sexual pleasure. Several said that they felt like a 'new sexual being', energised, which translated into sexual esteem and increased sexual functioning. Sexual competence is portrayed in the following excerpts.

Ruby, a 46-year-old nursery nurse, confided:

'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'.

Whitney, a 63-year-old retired human resource manager, explained:

'Yeah, definitely, for the first time in years, I'm looking good, and attract more sexual attention from my husband and limitless sexual pleasure. I make more of an effort with my appearance now'.

Since surgery three women reported getting married and talked about a new expansiveness and joy, which are tremendously appealing and fulfilling. Iona, a 39-year-old palliative carer, recounted:

'I got married last year and my husband worships me. I feel happier and more relaxed. I thought I would stay single all my life because I do not have a 'perfect body'. Several of the single participants mentioned attracting more sexual attention and starting new relationships that brought delight and pleasure. They engaged with social networking or internet dating to facilitate rapport building and intimate connections. Although most were enthusiastic about relationship aspirations, a few felt nervous about intimacy with a new partner because of the scarring and lack of a perfect body. For example, Bianca, a 47-year-old paramedic, disclosed:

'I'm self-conscious and I feel that I've got to blurt it out and tell him before.... I've got to say, Oh, by the way, I've got this massive scar on my stomach. I've got this. I've got that. Um, so yeah, it's affecting how I have a relationship'.

Even in this short extract, however, it is possible to catch a glimpse of the body's vulnerability and the challenges individuals may encounter in navigating new intimate relationships.

Among the men, one participant reported relentless attention to his body in terms of grooming, exercising daily, using creams and beauty products. He recounted reentering the '*singles market*' after his divorce and becoming aware of the competitive aesthetic standards for men that were different from those of married men. He felt it was necessary to display a 'very attractive' aesthetic in order to meet a special new partner.

4. Radical Shifts in Lifestyle

This final core theme is marked by radical shifts in lifestyle following surgery. The participants reported huge improvement in several domains of health within the first few months after surgery, triggering radical lifestyle changes. Respondent's accounts of a successful shift in lifestyle were consistent with the integration of more activity and weight maintenance habits into their daily routines. In addition, their internalised identity standards had evolved to incorporate their post-weight loss and posting body contouring bodies: they experienced validating social feedback in regard to their transformed shape and size, promoting body acceptance and a greater sense of well-being.

Here they focused attention on two topics: regular exercise and activities of moderate and vigorous intensity, and new creative opportunities including career pathways and pursuing creative hobbies. Several indicated that they had become very active following surgery and enjoying physical effort, such as running, working out in the gym, jogging, dancing, climbing or engaging with Zumba.¹⁴ Aside from maintaining a level of fitness appropriate to bodily need, a few of the women exhibited self-consciousness about their bodies and made a decision to join a women's only gym, displaying autonomy and choice. In contrast, others felt comfortable exhibiting their bodies.

The following extracts illustrate a range of features of identity transformation. Bianca, a 47-year-old paramedic, drew attention to her now going to a gym but of a particular type, 'women only' gym:

'I must admit, I couldn't go to a normal gym because of my body issues. I've gone to a women only gym because I couldn't face being in front of it all...either skinny women that are all blonde bimbo-type;¹⁵ or big muscular men.'¹⁶

Other participants said that increasing confidence prompted them to take action with their children, breaking through the pre-surgical limitations, in this way progressing post-operative physical activity, well-being and a new sense of self. Jewel, a 37-year-old medical administrator, told the researcher:

'I'm doing it now, you know playing with the kids outside, going out...going on rides at fun fairs & things that I would never... never have done before. I would never have the confidence before'.

Overall, the majority of the respondents appeared to be active investors in their bodies, spending long hours exercising and enjoying being active with their children.

New Creative Opportunities

A further important feature of lifestyle changes alluded to was finding a new career pathway and obtaining higher or vocational education to match individual choices. Six participants reflected on a long-standing desire to terminate mundane paid work where they tended to feel trapped. Four had undertaken night work, hiding away in

¹⁴ Zumba fitness combines the strong, distinctive beats of the Latin music of Bestro's native Colombia with easy- to- do international dance moves (Latin dance workout).

¹⁵ Bimbo describes a woman who acts in a sexually promiscuous manner. The term can also be used to describe a woman who is physically attractive but is perceived to have low intelligence or poor education.

¹⁶ Adjective to describe a well-built or muscular man. Also used to describe a fit person or someone who is attractive.

the pre-surgical body as an inherited victim. Nicole, a 29-year-old qualifications coordinator, reported a powerful turning point, successfully completing a law degree and a postgraduate diploma in law too.

'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 every day and never stay at home.'

Three women pursued career pathways in healthcare roles – training to become a mental health nurse, a paramedic and undertaking an National Vocational Qualification (NVQ) level 5 in health and social care, followed by a professional trainer's course. Bianca, a 47-year-old paramedic, recounted:

'I pursued a major career change. I always wanted to be a paramedic; I couldn't have done it at my size (my old size). So the surgery gave me confidence to go for it. I love the work'.

Such transitions permitted a shift in professional competence, enabling the participants to shed the old identity, with a better chance of work success.

In analysing accounts of lifestyle changes, all the successful transformers emphasised delight in the discovery of new hobbies that brought a new phase of exploration and adventure. Whitney, a 63-year-old retired human resource manager, stated that she had been given a new wellspring of human life, enjoying the challenge of new hobbies in a social context:

'It's brilliant and I'm really busy. I do adult learning classes in furniture upholstery, and in French. I help my sister sell china and porcelain on eBay. Life is full and rich'.

Along similar lines, Trudie, a 50-year-old manager of a community/day centre, told me that her new surgical body enabled her to become an avid scuba diver. She also commented on her aspirations to undertake a 'parachute jump' and a 'balloon flight'.

Four respondents talked about writing books as a direct result of life-course events – such as navigating the obesity legacy or fitting into a new body. Sophie, a 47-year-old hairdresser, spoke fascinatingly about her creative artwork that she would like to display at art exhibitions.

Optimism and Chronic Illness

This sub-theme relates to the participant's capacity for accepting limitation and transcending the underlying dread of disapproval and rejection that often accompany chronic illness. Strikingly, a courage or heroism comes through strongly in the participants' accounts of managing chronic illness. Their narratives demonstrated considerable courage, emphasising activeness and strength of will in undertaking self-care. Notably, if not unsurprisingly, the post-surgical body was interpreted as promoting coping capacity, empowering physical function and activity. Most mentioned families as a reference point of belonging but adjacent elements, such as healthcare specialists or support groups, were accessible when needed. For example, Heidi, a 36-year-old administrator for a training company, stated,

'Even now; even with my multiple sclerosis there's times when my legs don't work, we still go walking. I've now got walking poles and I've got an asthma pump so, um, it doesn't stop me. My husband spurs me on because he is very sporty'.

Heidi also mentioned that she has negotiated a flexible role with her employer that enables her to work from home, one or two days per week. The NHS has provided very supportive medical care and she also felt continually supported by family and friends. This account highlights courage in striving to overcome the challenges faced and an understandable desire to be active and available to others too.

In other cases, similar assertions emerged, whatever physical features were altered by arthritis or suffering from painful joints, and most never accepted the principle of mobility restriction. The majority were concerned with appearance and promoting a good quality of life accompanied by a willingness to invest in resources to improve it. For example, Harriet, a 62-year-old recently retired nursery nurse, said,

'I feel suddenly more energised following all the operations. My changing body has put an end to all the 'couldn't do'. I walk ever day and I've just got a bicycle. The exercise helps the arthritis'.

Among those with cardiovascular health problems, most demonstrated great insight into understanding their conditions and acknowledging the importance of accessing the healthcare system for monitoring and support. For example, Ivory, a 47-year-old fancy dress shop assistant, indicated:

'I had my first deep vein thrombosis (DVT) when my eldest daughter was born, nearly 21 years ago. And when I was severely obese, I had about three more DVTs and one PE (pulmonary embolism). I'm on warfarin (anticoagulant tablet) and go for blood tests and monitoring.'

However, Felix, a 56-year-old plummer, told me that he had high blood pressure and was taking prescribed medication but felt that his smoking behaviour was self-indulgent and obsessive. He went on to acknowledge the difficulty of smoking cessation, despite personal costs.

The creative accounts appear to present active and encouraging modes, with a reliance on medical expertise. However, most recognised that the post-surgical body is a statement and a site of empowerment but long-term health problems were perceived as priming the body for change and further identity shifts.

Sustaining Long-Term Weight Loss

This sub-theme embraces the distress respondents highlighted over weight loss plateaus,¹⁷ triggered by weight gain in the post-surgical body. Although substantial and sustained weight loss was reported (or perhaps underreported) in the pre-surgical body, distress, guilt and despair featured from the inability to control weight gain in the post-surgical body.

This is an important feature and has several effects. Firstly, problematic eating habits were reported as causing psychological distress and triggering '*feelings of failure*', with some weighing up the effectiveness of the 'ultimate bariatric' intervention.

However, in such cases, there appeared to be no uniform guidance offered by the NHS for the success of long-term weight management. Grace, a 51-year-old special needs carer, commented:

'The one thing I don't like about the bariatric surgery is you have it to lose weight, you're not trained in any way to eat smaller...you're used to eating big. Food was an obsession to me'.

She went on to talk about how her healthcare practitioners explained the importance of taking nutritional supplements. However, they did not place emphasis on changing eating behaviour, thus paying little attention to the full set of conditions that would be

¹⁷ A weight-loss plateau occurs when a person no longer loses weight despite continuing with exercise and healthy-eating habits.

required for adapting eating habits. Grace confessed to currently gaining weight and felt that it was important to be a self-determining individual in tackling food addictions, knowing the body's appetite, and making lifestyle changes. In a similar vein, Whitney, a 63-year-old retired human resource manager, pointed out:

'I still need a probably bigger portion than I should. My surgeon is very aware of that. So when he did the gastrectomy (a medical procedure for removing part of the stomach), he gave me a bigger stomach than he normally would. I'm trying to control my weight again. I need to lose another stone'.

The strong individualist tone that runs through these quotes shows the struggle adapting eating behaviours.

Secondly, twelve women challenged the hierarchy in which bariatric surgery is deemed to be the ultimate means of facilitating long-term weight loss. For example, Trudie, a 50-year-old manager of a community/day centre, indicated:

'I undertook background research and careful consideration before deciding to proceed with bariatric surgery. I was thrilled with the gastric band. I was thrilled to lose weight. Just because you put a band in, it's not going to stop you if you've got an eating problem. I eat if I'm unhappy...over-eat. I read research reports on the internet and they are misleading'.

Similarly, Prudence, a-58-year-old retired medical administrator, said,

'I had a gastric band in 2003. I still use food and alcohol as a crutch to cope. I come from a damaged background and the bypass doesn't stop me'.

There is evidence portrayed previously, in the 'undoing depression' sub-theme, outlined above and part of the 'identity transformation' core theme, of people overcoming their depression and emerging into a new serenity. Nonetheless, of the respondents who have been victims of childhood sexual abuse, abandonment or neglect, the tolerance of food limitation appeared to be low. In the context of unrecognised patterns of eating, binge eating and food addictions continued to be problematic in the post-operative body, especially amongst vulnerable individuals. Contrastingly, while the self-reliant subjects who lost weight through weight watchers programmes also mentioned battling with long-term weight and eating behaviour and pursuing regular exercise.

Summary: The Post-Surgical Perspective

The post-surgical perspective highlighted powerful shifts in identity and radical lifestyle changes amongst the post massive loss participants, including two core themes. The two theme 'identity transformation' and 'radical shifts in lifestyle' consist of a persistent, subtle, ingenious, substitution of one way of being by another. The process appeared to generate greater well-being and improved QOL in the participants, together with greater enjoyment in daily living. The pleasure and challenges of working for human betterment, the inner peace, body image acceptance and identity shifts that prevailed was clearly articulated in the associated sub-themes.

In contrast to the pre-surgical body, the post-surgical body provides for accounts that position patients as transforming, giving rise to identity shifts, a more esteemed appearance and undoing depression. As such, the participants' accounts showed that individuals attempted to break through limitation and social barriers that contributed to their isolation. The centrality of a new appearance and transforming identity appeared to empower the participants; abilities were exercised, individuality respected and there was a celebration of life. Striking evidence is also presented here that quality of life was greatly enhanced through the consumption of body contouring surgery.

SECTION THREE: SCORES AND PERCEIVED VALUE OF THE OPSQ

Quality of Life

As noted in the elaboration of the study's methods (see Section One of this report), at the end of the interview, after a short break, participants were asked to self-complete the Obesity Psycho-social Scale Questionnaire (OPSQ), covering both pre- and postsurgery perceptions. This asked the respondent to rate (on a five point scale) a range of questions, organised into seven, quality of life (QoL) related sub-scales or domains: physical functioning, mental health and well-being, body image/appearance, social acceptance, self-efficacy towards eating, intimacy and sexuality and social network. Participants were then asked about were asked about their perceptions of the value of the OPSQ in drawing out and addressing their concerns and outcomes, and any areas they felt it omitted to cover. This section of the report provides insight into the findings.

Participants Scores on the OPSQ

Figure 1 presents the total score on each of the seven QoL domains for the pre- and post-surgery perceptions. The OBSQ contains five possible answers to each question For example, (almost) never=1, seldom=2, sometimes=3, regularly=4 and (almost) always=5. The scale 'physical health' contains three components: 'physical function', 'vitality' and pain'. High scores indicate bad health, being tired quickly and have a lot of pain, whereas low scores indicate good health, being vital and have little pain. The next scale 'mental well-being' contains questions concerning depressive symptoms. High scores indicate experience of many depressive symptoms, whereas low scores indicate experience of few depressive symptoms. The third scale 'selfesteem, appearance' contains questions concerning external satisfaction and related self-esteem. High scores indicate little satisfaction with appearance and related selfconfidence, whereas low scores indicate satisfaction with appearance and feeling content. The next scale 'social judgement contains questions concerning the degree in which people experience discrimination by the outside world with regard to their weight. Again, high scores indicate being frequently discriminated, whereas low scores indicate that they experience little discrimination. The final three scales 'selfefficacy towards eating habits', 'intimacy and sexuality', and 'social network', also

point to low scores indicating high control towards eating habits, no problems with intimacy/sexuality and that individuals make social contact easily and frequently visit other people. The change in the participants' pre-and post-surgery ratings is outlined in the following sections.

Looking overall, Figure 2 presents the change in the participants' pre- and postsurgery perception ratings. This suggests an improvement in QoL perceptions following body contouring, most notably for physical health, self-esteem and appearance and social acceptance. The change of each of the QoL domains in perceptions pre- and post-body contouring was statistically significant (p< 0.01 for six of the seven domains; p < 0.05 for the self-efficacy and eating domain) (Table 4).

Thus, following surgery, participants were expressing a greater sense of physical well-being, improved body image, self-esteem and appearance, which one might infer impacted positively on self confidence, enhancing perceptions of social acceptance and social networking. In a similar vein, there was a significant improvement in mental health, patients experiencing less mood swings, depressive symptoms and anxiety and fewer problems with intimacy and sexuality. While a statistically significant difference in ratings of self-efficacy towards eating prior to and after the body contouring procedures, it is important to note an earlier finding from the analysis of the interview data that the participants were still reporting eating as problematic in terms of sustaining long term weight loss and controlling eating habits after the operation.

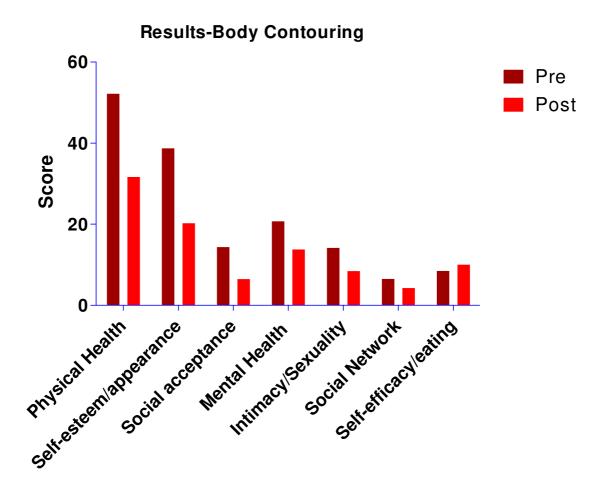


Figure 1: Overall QoL Ratings from the OPSQ

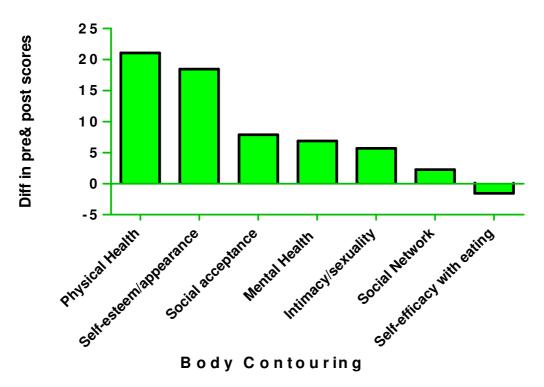


Figure 2: Change in QoL Ratings on the OPSQ Pre- and Post-Body Contouring

| Domains | Change | SE (M) | Number of | Paired t- | Significance |
|--------------------|--------|--------|-----------|-----------|--------------|
| | Score* | | Cases | test | Level |
| Physical Health | 21.06 | 3.58 | 20 | 5.09 | < 0.01 |
| Self-esteem | 18.45 | 2.28 | 20 | 8.07 | < 0.01 |
| /appearance | | | | | |
| Social acceptance | 7.9 | 1.18 | 20 | 6.65 | < 0.01 |
| Mental Health | 6.9 | 1.10 | 20 | 6.21 | < 0.01 |
| Intimacy/sexuality | 5.7 | 0.86 | 20 | 6.54 | < 0.01 |
| Social Network | 2.25 | 0.76 | 20 | 2.91 | < 0.01 |
| Self-efficacy | -1.55 | 0.69 | 20 | -2.23 | < 0.05 |
| towards eating | | | | | |

Table 4: Change in Pre- and Post-Surgery Ratings

* Note: change score is the mean difference between the pre- and post-score

Participant Perceptions of the Usefulness and Value of the OPSQ

All the participants found the questionnaire accessible, pointing out that the statements were easy to read and understand and that the measure was of an appropriate length (both in terms of the number of questions to complete and the time taken to complete it). Most importantly, they perceived all the rating statements as being extremely relevant to issues that were important to them. They also liked the pre- and post-surgical feature of the questionnaire.

Despite these notable strengths, participants pointed to a number of limitations. The majority of participants thought that the phrasing of some of the content of the statements might trigger a biased response. Examples included 'to feel attractive', 'to feel pretty', 'to have pain', 'to have pain in your legs'. Their meaning was open to individual interpretation. In addition, it was highlighted that the OBSQ only contains three questions concerning feelings of self-efficacy towards eating habits. Participants perceived the area of 'eating habits' as being very important, in terms of long-term weight management and quality of life, especially for participants who may have had massive weight loss. Two participants said that the huge range of statements to consider affected their concentration, seeing the instrument as a bit too long. Finally, three female participants were disappointed with the questionnaire, commenting that it was a 'tick box affair' with no facility to write comments.

SUMMARY OF THE KEY FINDINGS AND IMPLICATIONS FOR FURTHER RESEARCH

Summary

This report has presented an in-depth exploration of 20 participant's experiences of quality of life following massive weight loss and body contouring surgery. The presurgery analysis of the interview transcripts shed light on two core themes including 'fragile identity' and 'restricted lifestyle and everyday living'. The first overarching theme 'fragile identity' includes four associated sub-themes of 'body image ugliness', 'feeling socially marginalised', 'feeling depressed' and 'sexual/intimacy difficulties. For the participants in this study, perceptions of the body played a crucial role in their experiences and distress. Embedded in the patients' accounts are several striking instances of severe or very severe body hatred and poor body image, underpinning low self-esteem, psychological distress and depression. More poignantly, turbulent experiences of appearance and identity triggered a restricted lifestyle. Not surprisingly, then, situations sometimes arose in which those who had severe body hatred engaged in social withdrawal and 'invisible' behaviours. The construction of the body as 'problematic' following massive weight loss seems to have a significant impact on how the participants relate to themselves and their lifestyle and function, continually influencing QoL.

The post-surgical perspective highlighted an enormous amount of body change. How the participants related to their bodies appeared to be communicated through powerful shifts in identity and radical lifestyle changes. Two overarching themes emerged including 'identity transformation' and 'radical shifts in lifestyle'. The findings illuminate high levels of transformation and the promotion of the proudly, selfdetermining individual. The process appeared to generate greater well-being, career advancement and higher profile in public life. In contrast to the pre-surgical body, the post-surgical body provides for accounts that position patients as transforming, giving rise to a more esteemed appearance and undoing depression. Although an improvement in body image/appearance was highlighted, respondents differed in the timing and intensity of their identification with improvement in the present study. The majority communicated continued body image distress for the first year following surgery. Their accounts alluded to the dimension of 'scarring' as a result of long wounds, which, for many contributed towards their body distress. In contrast, later accounts of 'scarring' were more optimistic, triggering a greater sense of body esteem, changing body image an enhanced appearance.

Other changes noted include greater social acceptance, increased sexual prowess, a reduction in mood swings, an increased interest in self-presentation and the reappraisal of strategies for sustaining long term weight loss. In some instances, however, it is likely that a different kind of change is being reported 'personal growth'. The centrality of a new appearance and transforming identity appeared to greatly empower the participants. These findings offer interesting insights into bodily experiences and quality of life following massive weight loss and body contouring surgery.

On the basis of the work that we have done so far, regarding the participants perceptions of OPSQ (Obesity Psychosocial State Questionnaire), the majority found the questionnaire accessible and the statements were 'on the level' that connected with them. This understanding enabled the participants to complete the pre-and post surgical sections of the questionnaire with enthusiasm. Some, however, pointed to deficiencies in relation to the fact that the questionnaire contained only three questions on 'self-efficacy towards eating habits' and the seeming repetition of similar statements through the questionnaire. We have some indication, albeit sketchy and subjective, that two participants found the instrument a bit long winded and demanding because of the extensive range of statements to consider. Nonetheless, there is an overall strong indication that the OBSQ is a useful tool to employ in a large scale study, especially if additional questions were asked around self-efficacy and eating.

Implications for Future Research

Further research is warranted to extent the scope of the findings within a sample drawn from multiple treatment centres. This would valuably:

• Explore gender, ethnic and cultural variables, important to optimising quality of life.

- Clarify distinguishing features between short and long-term QoL outcomes.
- Lead to the development of national policy and guidelines on reconstructive 'body contouring' surgery following massive weight loss, in line with the call from the British Association for Plastic, Reconstructive and Aesthetic Surgeons (BAPRAS)

A future multi-centre collaborative study could employ the OBSQ, supplemented by an additional tool to explore factors that influence eating habits such as the three factor eating questionnaire (such as the TFEQ-R1 21 Scale). Such research could enhance understanding of quality of life and long-term weight management.

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Appendix 1



National Research Ethics Service

South West London REC 4 St Georges University of London South London REC Office 1 Corridor 1 - Room 1.13 1st Floor, Jenner Wing Tooting London SW17 0RE

> Telephone: 0208 725 0262 Facsimile: 0208 725 1897

Date: 30th July 2010

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Dr Jo Gilmartin, Lecturer University of Leeds, School of Healthcare, Baines Wing, Leeds, LSU 9UT

Dear Dr Gilmartin

Study Title:

REC reference number: Protocol number: Psychosocial and long term outcomes from reconstructive surgery following massive weight loss. 10/H0806/37

Thank you for your letter of the 25th June 2010, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information was considered by a sub-committee of the REC at a meeting held on the 30^{th} July 2010. A list of the sub-committee members is attached.

Confirmation of ethical opinion

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

Ethical review of research sites

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

Conditions of the favourable opinion

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

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

> This Research Ethics Committee is an advisory committee to the London Strategic Health Authority The National Research Ethics Service (NRES) represents the NRES Directorate within the National Patient Safety Agency and Research Ethics Committees in England

For NHS research sites only, management permission for research ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <u>http://www.rdforum.nhs.uk</u>.

Where the only involvement of the NHS organisation is as a Participant Identification Centre (PIC), management permission for research is not required but the R&D office should be notified of the study and agree to the organisation's involvement. Guidance on procedures for PICs is available in IRAS. Further advice should be sought from the R&D office where necessary.

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

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

Approved documents

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

| Document | Version | Date |
|--|---|------------------------------|
| Investigator CV | | 15 th April 2010 |
| Investigator CV | | |
| Protocol | 4 | 15 th April 2010 |
| REC application | | 12 th April 2010 |
| Covering Letter | | 15 th April 2010 |
| Covering Letter | | 22 nd June 2010 |
| Interview Schedules/Topic Guides | 3 | 15 th April 2010 |
| Letter of invitation to participant | 4 | 15 th April 2010 |
| GP/Consultant Information Sheets | 3 | 15 th April 2010 |
| Participant Information Sheet | 4 | 22 nd June 2010 |
| Response to Request for Further Information | | 25 th June 2010 |
| Participant Consent Form | 3 | 15 th April 2010 |
| Questionnaire: The MBSRQ-AS ~ Validated | | |
| Evidence of insurance or indemnity | | 8 th October 2009 |
| Referees or other scientific critique report | [2] A. M. Song, and K. M. Samara, and A. M. Samara, "A structure of the | 15 th April 2010 |

Statement of compliance

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

After ethical review

Now that you have completed the application process please visit the National Research Ethics Service website > After Review

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

This Research Ethics Committee is an advisory committee to London Strategic Health Authority The National Research Ethics Service (NRES) represents the NRES Directorate within the National Patient Safety Agency and Research Ethics Committees in England 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
- Progress and safety reports
- · Notifying the end of the study

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

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nres.npsa.nhs.uk.

| 10/H0806/37 | Please quote this number on all correspondence |
|-------------|--|
|-------------|--|

Yours sincerely

C. P. granding

Dr Hervey Wilcox Chair

Email: <u>lsbrec@stgeorges.nhs.uk</u>

Enclosures:

List of names and professions of members who were present at the meeting.

"After ethical review – guidance for researchers"

Copy to:

Mrs Rachel E de Souza Faculty Research Office Room 10.110 Level 10, Worsley Building Clarendon Way Leeds LS2 9NL

Ms Priscilla Aryee, Clinical Research Governance Officer St George's Joint Research Office Ground Floor, Hunter Wing St. George's University of London Cranmer Terrace London, SW17 0RE

This Research Ethics Committee is an advisory committee to London Strategic Health Authority The National Research Ethics Service (NRES) represents the NRES Directorate within the National Patient Safety Agency and Research Ethics Committees in England Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

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Appendix 2



St Georges University of London South London REC Office 1 Corridor 1 - Room 1.13 1st Floor, Jenner Wing Tooting London SW17 ORE

Tel: 0208 725 0262 Fax: 0208 725 1897

Date: 18th February 2011

Dr Jo Gilmartin, Lecturer University of Leeds, School of Healthcare, Baines Wing, Leeds, LSU 9UT

Dear Dr Gilmartin

1 Sti

| Study title: | Psychosocial and long term outcomes from |
|-------------------|--|
| | reconstructive surgery following massive weight loss |
| REC reference: | 10/H0806/37 |
| Amendment number: | Substantial Amendment 1 |
| Amendment date: | 31 st January 2011 |

The above amendment was reviewed at the meeting of the Sub-Committee held on 17th February 2011.

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 |
|--|---------|-------------------------------|
| Questionnaire: Obesity Psychosocial State | 1 | 31 st January 2011 |
| Notice of Substantial Amendment (non-CTIMPs) | 1 | 31 st January 2011 |
| Covering Letter | | 31 January 2011 |

Membership of the Committee

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

> This Research Ethics Committee is an advisory committee to the London Strategic Health Authority The National Research Ethics Service (NRES) represents the NRES Directorate within the National Patient Safety Agency and Research Ethics Committees in England

R&D apprdval

All investigators and research collaborators in the NHS should notify the R&D office for the relevant NHS care organisation of this amendment and check whether it affects R&D approval of the research.

Statement of compliance

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

101H0806137: Please quote this number on all correspondence

Yours sincerely

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Ms Joan Bailey CoMmittee Co-ordinator

E-mail: Isbrecastoeoroes.nhs.uk

| Enclosures: | List of names and professions of members who took part in the review |
|-------------|--|
| Copy to: | Mrs Rachel E de Souza Faculty Research Office Room 10.110 Level 10, Worsiey Building Clarendon Way Leeds, LS2 9NL |
| | Ms Priscilla Aryee, Clinical Research Governance Officer St George's Joint Research Office Ground Floor, Hunter Wing St. George's University of London Cranmer Terrace |

London, SW17 ORE

0 This Resekch Ethics Committee is an advisory committee to London Strategic Health Authority The NationalResearch Ethics Service (NRES) represents the NRES Directorate within the National Patient Safety Agency and Research Ethics Committees in England

Appendix 3

Reference:10/H0806/37

Patient information Sheet

Pilot study: Outcomes from reconstructive surgery following significant weight loss.

Invitation

You are being invited to take part in a pilot research study. Before you decide, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others, such as family, friends or GP, before you decide whether or not you wish to take part. Part 1 tells you the purpose of the study and what will happen if you take part. Part 2 gives you more detailed information about the conduct of the study. If you would like to discuss any aspect of this information sheet, or have any questions, please contact Jo Gilmartin (0113 3431254).

What is the purpose of the study?

In the United Kingdom (UK), a large number of people undergo reconstructive surgery following significant weight loss each year. We are particularly interested in exploring the experience of such people, focusing on general health, body image, emotional well-being, and levels of activity. This study, in helping us understand the benefits of the surgery, will be used to help other patients and inform the development of a large scale study, based in two different centres in the UK.

Who is doing the study?

This pilot study is being undertaken by a research team at the University of Leeds School of Healthcare and the Department of Plastic and Reconstructive Surgery, St George's Hospital, London, with Mr Mark Soldin, Consultant Plastic Surgeon. The principal researcher for the study is Dr Jo Gilmartin, from the University of Leeds, working together with Professor Andrew Long, also from the University.

Why have I been chosen?

Since you, amongst others, have undergone reconstructive surgery procedures at St George's Hospital, London, following significant weight loss, you are being contacted directly by letter to ask if you are willing to take part in this pilot study. We hope to include about 20 of those who have had 3 to 6 months to recover from the surgery.

Do I have to take part?

Taking part is entirely voluntary. If you do, you will be asked to sign a consent form and will receive a copy of the information sheet and consent form to keep. You will still be free to withdraw at any time without giving a reason for doing so and without changes to any healthcare you are currently receiving.

What will happen if I decide to take part?

You will be asked to contact Jo Gilmartin (University of Leeds) by letter, e-mail or telephone expressing your wish to participate. She will then contact you and arrange an interview in July, August or September 2010, at a date and time convenient for you. The interview, which will be tape recorded, will take place in your home or at an alternative convenient venue (for example, St George's Hospital, London) and will last about 1 to 1.5 hours. It will focus on a set of questions about your experience before and after surgery, in regard to general health, body image, emotional well-being, and level of activity. Tape recording is commonly used in research to enable the information gathered to be typed up. At a later stage, what you and others have said is read to see what common ideas emerge. At the end of the interview, you will be invited to complete a short questionnaire, which, if you prefer, may be completed in your own time and returned by post (a stamped addressed envelope will be provided). Your medical notes may be read too for background information.

Expenses

Modest travel expenses will be paid if the interview is arranged at St George's Hospital, London.

What are the possible advantages and disadvantages of taking part?

You will be asked questions about your experiences prior to and following reconstructive body surgery. Occasionally, this can be a bit upsetting, so it is important to remember that you do not have to answer any question you do not want to. If you require support following the interview please contact Samantha Spavin (0781 5056888), counsellor, St George's Hospital, London.

By carrying out this research, we hope to get a better understanding of how the surgery has influenced your quality of life and well-being. This will inform the best approach for undertaking a large-scale study in the UK, important because the results will influence future health policy and patient care.

Part 2 Will my taking part in the study be kept confidential?

Anything you tell us will be absolutely confidential. Your name will be removed from the information sheet and the typed interview notes will be assigned a number. Tape recordings will be stored securely and erased at the end of the study. It will not be possible to identify anyone from our reports.

All information collected from you during the course of the research will be kept strictly confidential, within the limits of the law in accordance with the Data Protection Act 1988. It will be assigned a number, which will not identify you. The data and results of the study will be stored on a secure computer at the University of Leeds and the data held for five years before deletion.

What will happen if I don't want to carry on with the study?

You are free to withdraw from the study at any time and will be given the option of keeping or withdrawing personal information collected. If retaining the information, the research team will continue to use it confidentially in connection with the purpose for which consent was sought, before secure disposal after five years. Paper files will be destroyed by a cross cut shredder and recycled as confidential waste.

What if there is a problem?

The University of Leeds is acting as the sponsor of this study. If you have any concern, you should speak to one of the researchers. You can either contact the Principal Investigator directly (Dr Jo Gilmartin, 0113 3431254 or by e-mail j.gilmartin@leeds.ac.uk) or the University of Leeds, Research Governance Office (0113 3434897). If you remain unhappy and wish to complain formally, you can do this through the NHS complaints mechanism, their indemnity scheme being accessible to patients recruited from the NHS.

What will happen to the results of the research?

Any research reports or publications will not identify you individually. If you wish, we will be happy to send you a copy of the published results when they become available.

Who has reviewed this study?

This study has received ethical approval from the South West London Research Ethics Committee 4. Contact for Further Information

If you have any further questions about this research, please feel free to contact Jo Gilmartin, one of the researchers involved in the pilot study, on 0113 3431254, or e-mail: j.gilmartin@leeds.ac.uk

Name of researcher: Dr Jo GilmartinSignatureDateName of Centre:Psychosocial Sciences,

School of Healthcare, Baines Wing, University of Leeds, Leeds LS2 9UT

Thank you for taking the time to read this information sheet and considering whether to take part in this pilot study.

Version 4 22nd June 2010

Appendix 4

Letter to GP

Rec Ref: 10/HO806/37 School of Healthcare Baines Wing University of Leeds Leeds LS2 9UT

Dear GP,

Reference: Pilot Study on Patient Quality of Life from Reconstructive Surgery following significant weight loss.

I am writing to inform you about a pilot study that potential patients might contact you to discuss in regard to consenting to participate. A team of researchers from the University of Leeds and St George's Hospital, London including Dr Jo Gilmartin, Professor Andrew Long and Mr Mark Soldin, Consultant Plastic Surgeon will undertake the study. The principal research objectives are outlined in the following section:-

- 1. To identify psychosocial outcomes from reconstructive surgery following massive weight loss.
- 2. To identify measuring tools and procedures to inform a larger two centred study in the UK.

The potential participants will be furnished with an information sheet describing the project, their rights and choices, advantages and disadvantages of participation, confidentiality and data protection strategies. They are encouraged to discuss potential participation with others such as family, friends or GP.

The researcher will begin data collection by reading medical notes to gather background information about body mass index, eating profiles, obesity related illnesses-co-morbidies and type of sequential body contouring procedures undertaken.

The participants will be invited to undergo a face-to-face interview. The interview will take place in their home or an alternative convenient venue and will last for about 1 to 1.5 hours. The interview questions will focus on patient's experience before and after reconstructive surgery following massive weight loss, in regard to general health, body image, emotional well-being, level of function and activity. The interview will be tape-recorded. As you are aware, tape recording is commonly used in research to enable the information gathered to be typed up and read for emerging themes.

I will also invite the participants to complete and comment on one obesity psychosocial state questionnaire. However they can choose to complete the questionnaire in their own time and return it by post.

There is a potential risk that some participants might find the interview questions a bit upsetting or distressing because of the vulnerability associated with body image, past experience associated with morbid 'obesity' or quality of life issues. If this were to occur in the interview, the researcher would stop the interview; check whether the participant wished to continue with the interview. If not the researcher would discontinue the interview sensitively or completion of the questionnaire. A debriefing session would be facilitated. If the patient requires counselling, a trained therapist is available for patients to access. The therapist can be contacted by telephone.

This exploratory study has received ethical approval from the South West London research ethics committee 4.

If you would like further information about the study or you have any questions or queries, please contact (Jo Gilmartin 0113 3431254) or Mark Soldin, Consultant Plastic Surgeon, St George's Hospital, London (07930535560).

Version 3, 15th April 2010.

Appendix 5

Consent Form

Rec Ref: 10/HO806/37 Title of Study: Pilot Study: outcomes from reconstructive surgery following Significant weight loss.

Name of researcher: Dr Jo Gilmartin and Prof Andrew long, Psychosocial Sciences, School of Healthcare, University of Leeds & Mr Mark Soldin, Department of Plastic & Reconstructive Surgery, St George's Hospital, London.

The participant should complete the whole of this sheet himself/herself

| | Please initial in the box below |
|---|---------------------------------------|
| I have read and understood the participant information sheet dated 22/6/2010 for the above study. I have had the opportunity to consider the information, ask questions and have these answered satisfactorily. | |
| I understand that my participation is voluntary and that I am free to withdraw at any time without giving reason, without my medical care or legal rights being affected. | |
| I understand that relevant sections of my medical notes and data collected during the study, may be looked at by researchers from the University of Leeds. The University of Leeds is acting as a sponsor for this study. I give permission for those individuals to have access to my records. | |
| I understand that the interview will be audio taped. Tape recording is commonly used in research to enable the information gathered to be typed up. At a later stage, every phrase is read to see what common ideas or themes emerge. I give permission for the interview to be audio taped. | |
| I understand that I can discuss this study with my GP. I give permission for the research team to write to my GP informing him/her about the study. | |
| I understand that any information I provide, including personal details, will be confidential, stored securely and only accessed by those carrying out the study. | |
| I understand that any information I give may be included in published documents but my identity will be protected by the use of pseudonyms | |
| I agree to take part in this study | |
| Name of Patient Date Signature | |
| Address | |
| Telephone Number | |
| Name of Researcher taking consent Date Signature | |

Thank you for agreeing to take part in this study. Version 3, $15^{\text{th}}/4/2010$

