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SCHOOL OF HEALTHCARE, UNIVERSITY OF LEEDS

Identity transformation and a changed lifestyle following dramatic weight loss and body contouring surgery: an exploratory study.

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**Abstract**

This paper reports on two major quality of life perception changes for patients who had undergone plastic surgery following dramatic weight loss. The exploratory, qualitative study was undertaken with 20 patients from one teaching hospital. Semi-structured interviews were conducted and a thematic analysis of the data undertaken. The results provide unique glimpses of surgical consumption empowering and facilitating ‘identity transformation,’ embracing improved physical function and enhanced self-esteem, confidence and QoL, and a ‘changed lifestyle’. For a minority, identity transformation was sometimes interrupted by ‘identity lag’, posing the need for additional healthcare support throughout the adjustment process. The study provides additional insight into existing quantitative studies, adding to the body of knowledge in this area.

**Keywords**

Weight loss, body contouring surgery, psychological well-being, identity transformation, quality of life.

## **Introduction**

A growing number of morbidly obese patients (BMI of 35kg/m<sup>2</sup> or greater with comorbidities, or a BMI of 40kg/m<sup>2</sup> or greater without comorbidities) are seeking surgical solutions such as bariatric surgery. Several reviews have concluded that weight loss is associated with improvements in other multiple ill-health problems such as type 2 diabetes, hypertension and sleep apnoea (Buckwald et al., 2004, Khalifa 2013). Following weight loss, patients report increased quality of life (QoL) (Mitchell et al., 2001; Tolonen et al., 2003; Fontaine et al., 2004) and improved physical health (Swan-Kremier 2005; van Hout et al., 2009). The impact of weight loss on mental health and psychosocial status including employment opportunities improve for the majority of people (Herpertz et al. 2003, Karlsson et al. 2007,). Moreover, a recent Scottish study points to significant improvement in emotional well-being and in all domains of health-related quality of life following weight loss (Wright et al 2012). However, the main challenge is to detect patients at risk of continuing psychological distress.

A primary motivation for seeking weight loss surgery is appearance dissatisfaction and the psycho-social impact of visible difference (Libeston et al., 2004). However, the relationship between weight loss and body image is complex and problematic and most of the literature reporting improvements in body image following weight loss only investigated changes in the first year of weight loss (Sarwer et al., 2008). For example, Guisado et al., (2002) reported that greater weight loss was strongly correlated with lower levels of body dissatisfaction. Similarly, Hotter et al., (2003) found that some participants reported 'normalisation' in their levels of body dissatisfaction post weight loss, while others continued to experience significantly impaired levels of body dissatisfaction. .

In the context of extreme or massive weight loss, patients commonly experience body dissatisfaction and quality of life challenges due to the resultant excess skin on the abdomen, thighs, face and arms (Swan-Kremeier 2005; Herman et al., 2010, and Aldagal et al., 2012,). While a high proportion of patients (87% in Kinzl et al., (2003) study) were happy with their weight loss, 70% of the respondents considered that excess skin was a negative consequence for appearance and attributed this to 'flappy skin' (53%), an abdominal overhang (47%) and pendulous breasts (42%).

The resultant redundant skin presents new concerns in a range of areas such as difficulties with mobility, hygiene problems, skin rashes, decreased activity, body image dissatisfaction

and depression (Song et al., 2006; Mitchell et al., 2008). These concerns have led to an increasing uptake of post-bariatric ‘body contouring’ procedures (Hurwitz et al., 2004, Al-Hadithy et al., 2013). Patient motivations appear to be akin to ‘fixing’ of the body to uncover true identity, feel ‘normal’ and improve life style and QoL (Jones 2008).

Several recent quantitative studies have investigated psycho-social outcomes of body contouring surgery. Surgeons have reported and documented changes in appearance, well-being and QoL. These included: physical functioning and feelings of healthiness (Van der Beck 2010); improvements in psychological and mental health well-being (Lazar et al., 2009; Van der Beck et al., 2010) and stability in mood (Song et al., 2006); 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 et al., 2010) and positive thinking (Migliori et al., 2006); improved social acceptance (Van der Beck et al., 2010); and greater involvement in the social and cultural performance domain (Cintra et al., 2008).

Whilst these results provide useful and interesting insights into functional and psycho-social improvements, the complexity of patients’ experiences are difficult to explore using quantitative research. In addition, researchers and surgeons tend to focus on particular constructs (body image, physical function), with the voice of individuals who live the body contouring experience seemingly downplayed. This suggests the need for qualitative research, aiming to provide greater insight into patients’ psychological experiences of adjusting to body change. Against this context, an exploratory study was designed to explore the QoL perceptions, experiences and outcomes of patients who have undergone body contouring following significant weight loss.

## **Methods**

The study adopted a retrospective focus, drawing on a sample of patients from one clinical location providing body contouring surgery following massive weight loss. The primary data collection method was an in-depth interview, undertaken in the participant’s own home or a setting of their choice (for example, work environment after office hours). At the end of the interview, participants were asked to self-complete the Obesity Psycho-Social State Questionnaire (OPSQ), to provide a quantitative insight into the changes in their perceived QoL from ‘the time before the contouring surgery’ to ‘now’. Additional data on the medical

history of the participants was also drawn, with their permission, from the medical records at the clinical location. NHS Ethics and Research and Development committee approval was obtained for the study.

The OPSQ, while not specifically designed for body contouring (Jabir 2013), was selected because of the perceived relevance of its seven scales/domains and their close link to the physical and psycho-social concerns in existing research. Participants indicate the extent to which they agree or not, on a 5-point Likert-type rating scale (1 = almost never, to 5 = almost always). For example, 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. According to Van der Beek et al., (2010. p. 37), all the domains have 'a moderate to high reliability'. Permission to use the questionnaire was obtained from its Dutch devisors (Zijlstra et al., 2008). The process of translation involved the six stages outlined by Acquadro et al. (2008). The OPSQ was translated into English following established forward and backward translation by two dual-language (English, Dutch) speakers, including piloting of the English version with four people who had undergone plastic surgery. An external expert carefully content validated the English version of The OPSQ.

## **Procedure**

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 42 patients meeting these criteria were sent a letter and invitation sheet from the Consultant Plastic Surgeon located in one teaching hospital in the south of England. The letter asked those willing to participate in the research to contact the lead researcher (xx), 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. At the point of setting up the research interviews, two withdrew because of a family crisis, leading to a final sample of 20.

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 interview guide aimed to uncover participants' experiences of the impact of weight loss, motivations to undergo surgery, experience of body contouring surgery in terms of expectations, body-image change, quality of life and future hopes. Interviews were audio-taped and transcribed verbatim. The researcher took notes throughout the interviews and logged reflective thoughts that arose after the interview ended in a diary. When the interview concluded, participants were given a short (10 minute) break to relax and refresh themselves and then asked to self-complete the OPSQ. The interviewer then sensitively drew the interview to a close.

### **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 (xx) 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 developed using both open and selective coding processes in a systematic fashion across the entire data set, collating data relevant to each code (for example, self-identity dilemmas, lifestyle restriction and challenges, self-esteem, weight loss, weight gain, depression, intimacy struggles, social functioning, increasing body esteem, ). Initially 115 codes were developed. Examples of the codes and selected content were read by another researcher (xxx), confirming or otherwise the relevance of the codes for the data. The two researchers discussed the codes, considering links between the codes to form a set of overall themes. After a number of iterations, four final themes emerged, two for pre-surgery and two for post-surgery. The two post-surgery themes are explored in this paper. Quotes are provided in the results section and pseudonyms are used throughout. 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. Both participants pointed out the importance of the areas of post-operative pain and complications following surgery that impacted on their QoL

The data arising from the OPSQ was analysed using the Statistical Analysis Software (SAS). The psychometric procedure including reverse scoring put forward by Zijlstra et al., (2008) 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.

## **Results**

### ***Sample Characteristics***

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 (abdominoplasty) and 14 had multi-stage procedures such as upper body lift and lower body lift.

The mean BMI *pre-bariatric* surgery among the 16 patients who chose obesity surgery was 51.11kg/m<sup>2</sup> (range 40-70 kg/m<sup>2</sup>) and the mean BMI pre-dieting and lifestyle changes among the remaining 4 patients was 48.73 kg/m<sup>2</sup> (range 38.4-55.3 kg/m<sup>2</sup>). The mean BMI *pre-body* contouring was 25.9kg/m<sup>2</sup> (range 20-35kg/m<sup>2</sup>) for the 20 participants and the interval between bariatric surgery or weight loss and body contouring was 2-5 Participants with co-morbidities (for example, depression, mobility problems, arthritis, hypertension, asthma, anxiety) reported improvements or a reduction in their occurrence following body contouring surgery. For example, 10 people with mobility problems reported no on-going symptoms after plastic surgery. 9 subjects considerable improvement in mood swings/depressive episodes and 1 improvement in anxiety episodes. Nonetheless, post-plastic surgery, 5 people alluded to on-going difficulties with depressive symptoms, 4 problems with arthritis, 2 struggling with mobility because of joint pain and 1 each on-going hypertension or receiving long term treatment for a deep venous thrombosis ( DVT)

Participant responses showed substantial, generally positive, changes for the seven QoL domains of the OPSQ (Table 1; lower scores indicate lower importance of the items). For example, for the ‘physical health’ domain (exploring issues of ‘physical function’, ‘vitality’ and pain’), ‘now’ participants’ scores suggested better health, less tiredness and less pain. Similar patterns were evident for ‘self-esteem, appearance’ (higher pre-surgery scores being indicative of little satisfaction with appearance and low self-esteem, related self-confidence) and ‘social acceptance, social judgement’ (higher scores indicating frequently experiencing being discriminated). Less change was evident for the other domains (‘mental well-being’, ‘intimacy and sexuality’, ‘social network’ and ‘self-efficacy towards eating habits’). Change

pre- vs. post-body contouring were statistically significant for all seven domains ( $p < 0.01$  for six of the seven domains;  $p < 0.05$  for the self-efficacy and eating domain) (Table 1). The finding for the eating domain coheres with the interview data; participants reported that they found eating habits and controlling eating a problematic area, thus potentially compromising sustaining long-term weight loss.

**Table 1: Pre-and Post-Surgery Ratings and change score**

Domains	Pre-Surgery ratings	Post-Surgery ratings	Change Score*	SE (M)	Number of Cases	Paired t-test	Significance Level
Physical Health	52.26	31.20	21.06	3.58	20	5.09	<0.01
Self-esteem /appearance	38.80	20.35	18.45	2.28	20	8.07	<0.01
Social acceptance	14.45	6.55	7.9	1.18	20	6.65	<0.01
Mental Health	20.8	13.9	6.9	1.10	20	6.21	<0.01
Intimacy/sexuality	14.25	8.55	5.7	0.86	20	6.54	<0.01
Social Network	6.6	4.35	2.25	0.76	20	2.91	<0.01
Self-efficacy towards eating	8.6	10.15	-1.55	0.69	20	-2.23	<0.05

SE: standard error.

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

### ***The Post -Surgical Body***

The two core themes relating to participants' perceptions of the post-surgical body emerged from the data: identity transformation and radical shifts in lifestyle). Each is explored in turn.

#### ***Core Theme I: Identity Transformation***

'Identity transformation' focuses on the deep impact and effects body contouring had on the participant's positive appearance related changes and their physical, emotional and psychological recovery. This adjustment triggered an upward self-acceptance and a change in their perceptions from one of extreme anxiety about their body and identity to an astounding level of connection and transformation. Participants who described a strong sense of personal

transformation alongside their bodily transformation could ascribe to greater social acceptance. 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 which involved an embodied experience that incorporated physical and 'inner self' changes in response to a change in size and appearance. The new felt appearance/identity change cultivated by the surgery provided the participants with an incredibly positive experience associated with health related and psychological benefits.

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 self-perception. The 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 it's such a positive thing'.*

Others reported 'identity lag' in respect to their bodies changing faster than their internalised social perceptions of body image and appearance, resulting in disorientation or feelings of uncertainty. The confusion and conflict regarding the relationship between the self and the body reflects a turbulent and destabilised embodied experience. It appeared that it was difficult for the participants to accept their changing bodies in the present and the subsequent position of flux appeared to contribute to psychological distress. Participants appeared to find it difficult to exit stigma labels, the global lack of self-acceptance challenging them 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 (n=16), fifteen 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.

### *Core Theme II: Radical Shifts in Lifestyle*

The second 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. Respondents' 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 post-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.

They focused attention on two main 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.

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; or big muscular men.'*

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'.*

Another and important feature of lifestyle changes they 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 the pre-surgical body as an inherited victim. Nicole, a 29-year-old qualifications co-ordinator, 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.'*

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'.*

## **Discussion**

The study's findings indicate that most participants experienced powerful shifts in identity and radical lifestyle changes, following body contouring. These shifts from a pre-surgical 'fragile identity' and 'restricted lifestyle' (see Gilmartin et al. 2012) are suggestive of a persistent, subtle, powerful, substitution of one way of being with another. This process of change appeared to generate greater participant well-being and improved QoL, together with greater fulfilment in daily living.

The present study extends previous research in four important ways. Firstly, through the consumption of body contouring surgery, our findings reveal that bodies can be realigned with perceived selves, especially when these selves are aspirational or experiencing shifts in lifestyle. Plastic surgery influenced the recipient's sense of identity in terms of self-acceptance and the reactions of others to their modified body. These findings cast light on the importance of understanding 'identity' of body contouring consumers. As such, it shows that individual's appearance is worked at and accomplished as a reflection of self-identity. This is a similar finding to Shilling (2003), whose study shed light on the linkage between body modification and adjusting to a new visible difference and identity. For the majority of our participants, aesthetic interventions into the body enabled a very different outward appearance with profound changes in self-presentation. The changes wrought were spoken of as transformations in personality and identity. In this way, body-contouring surgery is not just 'reconstructive' in the sense of restoring existing component of the embodied self, but more fully 'constructive' in creating something new.

By having surgery, the majority of the participants were able to achieve an appearance that appeared more accurately to represent a positive self-identity. For most recipients, identity and behaviour had shifted away from 'bodily insecurity' to a changing and desirable body; translating into self-esteem, self-confidence and positive well-being. This finding coheres with Migliori et al., (2006), Cintra et al., (2008), and Lazar et al., (2009) and Van der Beek et al., (2010). Not surprisingly, feeling better and portraying a greater sense of well-being means eliciting more positive responses from others; our findings suggest that body contouring surgery can create psychological happiness and improve recipients' lives. The explanation lies firmly in the social world (Orbach 2009). Body contouring modifications can have significant effects on self-esteem, especially when they are validated by the gaze of others.

Secondly, the findings add to current knowledge by exploring an 'identity lag' experienced by a minority (n=4) of participants. Their physical bodies were changing faster than their internalised social perceptions of body image and appearance, resulting in psychological distress. There is however little acknowledgement by health professionals of a need to address potential psychological stress with the same gravity afforded to pre-operative planning, in the context of what is effectively a fairly dramatic psychological transformation, as well as a complex surgical procedure. Health professionals need to target further

interventions to reduce the experience of psychological distress in this group of patients. In the few accounts available associated with identity ‘lag’ post-surgery, the conflicted relationship with the self-other might benefit from psychotherapy. Some alluded to the threats posed as a direct result of life course events such as the onset of chronic illness, aging and weight regain. This coheres and adds to the findings of Moss and Rosser (2008) who conceptualised adjustment on a continuum. Differences between ‘good’ and ‘poor’ adjustment are thus not finite, and vary both within and between people. They further observed that poorer adjustment was frequently associated with patterns of experiential and behavioural responses such as shame, anxiety, depression and defensive social avoidance. The dissatisfaction that surrounds poor adjusters’ experience of their appearance has negative emotional repercussions, affecting their interactions and overall QoL.

Thirdly, the present study extends previous work by foregrounding the radical lifestyle consequences of weight loss and body contouring surgery. Close links were evident between identity transformation and lifestyle changes. Strategic benefits in terms of enhanced lifestyles, new education options, exciting career pathways, promotion at work, creative hobbies and relationships were acknowledged. Consuming better bodies, with greater vitality, triggered dynamic physical activity and effort in the sustainment of weight loss, leading onto societal benefits, the latter through feeling able to return to work and add capital to their quality of life, a finding cohering with Van der Beek et al. (2012).

Fourthly, our study provides supportive evidence of the relevance of the items contained within the OBSQ as a quantitative measure within research in this area, adding to preliminary findings of its psychometric properties (Zijlstra et al., 2008; Van der Beek et al., 2012). . In line with the findings from the interview data, participant scores on the OBSQ showed a significant, mostly moderate to large, improvement of quality of life in six of the seven domains, when comparing pre- and post-surgery perceptions. However, whilst on the OBSQ a statistically significant difference in ratings of self-efficacy towards eating, participants in their interviews still reported eating as problematic, particularly in sustaining long term weight loss and controlling eating habits after the operation. This position is reinforced by Van der Beek et al., (2012), who also reported that weight regain explained most of the deterioration of quality of life after body contouring surgery.

However it is important to remember that a small subgroup of patients in this study had on-going health challenges because rehabilitation following body contouring surgery is complex. The personal distress appears to be associated with post-operative comorbidities, mood and QoL. A finding cohering with Lazar's (2009) assertions that plastic surgery did not heal some patients' 'psychological wounds'. Therefore it is crucial that health professionals employ a wide range of rehabilitation interventions throughout the recovery process and monitor longer term outcomes.

Care must however be taken in drawing wide inferences from our exploratory, retrospective study, given its limited size, recruitment of participants from a single clinical site, non-diversity of participants and reliance on retrospective reflections. Further research is warranted to extend the scope of the findings within a sample drawn from multiple treatment centres, enabling recruitment of a larger sample to explore gender, ethnic and cultural diversity. Moreover, a future study could valuably include a prospective element, enabling exploration of short and long-term QoL outcomes, and depending on time of patient recruitment concurrent pre- and post-body contouring perceptions. Such a longitudinal study might also involve both qualitative and quantitative data collection, in order to both examine the experience of QoL following reconstructive surgery and assess perceptions of its significance via validated measurement tools such as the OBSQ. Finally, greater consideration of culture, ethnicity and sexuality on perception of quality of life is required and might shed light on factors and processes implicated post-surgery.

Notwithstanding these limitations, these findings provide additional insight into existing quantitative studies and add to the body of knowledge in this area. It is evident that consuming body contouring surgery following dramatic weight loss significantly improves well-being and quality of life. This suggests that the benefits of surgery outweigh its pain and potential risk. However, it is most important to recognise that identity transformation is sometime interrupted by 'identity lag', suggesting significant practical implications for the need to provide counselling and psychological support throughout the adjustment process.

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