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'Damned one way or another': Bariatric surgeons' reflections on patients' suboptimal outcomes from weight loss surgery

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ABSTRACT

Objective: A minority of patients show sub-optimal outcomes after weight loss surgery. Research has identified predictors of poor outcomes focusing on the patients' perspective. No research has explored surgeons' accounts. **Design:** Ten Bariatric surgeons were interviewed using a critical incident approach to explore their explanations for sub-optimal outcomes in the context of a real-life case. Data were analysed using thematic analysis. **Results:** Three main themes were developed: 'Challenges to success' highlighting the role of psychosocial issues, poor adherence and patient non-disclosure; 'Ideal world solutions' describing who should identify and address psychosocial issues; and 'Real world compromise' reflecting the impact of limited resources and weighing up risk between carrying out versus not carrying out surgery. Transcending these themes was the notion of 'responsibility' with surgeons balancing the role of the patient, themselves and the health care system. **Conclusion:** Some surgeons concluded that if they had known before surgery what they know now, they may not have operated. All emphasised that they could only know what was disclosed by the patient, that they were not convinced that not operating would have resulted in better outcomes in the longer term and many felt that they were 'damned one way or the other'.

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Introduction

In the light of the failure of behavioural interventions, weight loss surgery (WLS) is now considered to be the most effective method of management for individuals with a BMI of 40 or above or 35 or above with comorbid conditions (Colquitt et al., 2014). As well as promoting weight loss, WLS can also result in the reduction of cardiovascular risk and the reversal of diabetic status (Gloy et al., 2013). It is also associated with positive psychosocial outcomes such as improved self-identified health status, increased self-esteem, a decrease in the preoccupation with food and a decrease in depressive symptoms (Burgmer et al., 2014; Ogden et al., 2005; 2006; Strain et al.,

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2014). Whilst the majority of patients who undergo WLS succeed in losing weight and maintaining their weight loss, weight regain or suboptimal levels of weight loss can be seen in a minority of cases (Karmali et al., 2013). Furthermore, some patients also show poorer psychological outcomes post-surgery such as binge eating, negative shifts in the dynamics of their relationships, difficulties with the transfer of addiction particularly to alcohol, poor body image and a deterioration in mental well-being (Bak et al., 2016; Courcoulas et al., 2013; Magdaleno et al., 2011; Sogg & Gorman, 2008). As a result of this variability in patient outcomes, clinicians and researchers have called for patients to be managed by a multi-disciplinary team (MDT) to provide comprehensive support before and after surgery (NICE 2009; 2016; BOMSS, 2014; Mechanick et al., 2013; Sogg et al., 2016; O'Kane et al., 2016; O'Kane & Barth, 2016; Barth & O'Kane, 2016). Furthermore, research has also explored both the predictors of these suboptimal outcomes using quantitative methods and the patients' explanations of both failed and successful surgery using qualitative approaches. These will now be considered.

In terms of quantitative research, studies have identified a number of predictors of suboptimal weight loss post-surgery. For example, Meany et al. (2014) reported that 14 out of 15 papers reviewed identified post-operative binge eating and loss of control over eating as being negatively associated with weight loss and Konttinen et al. (2015) identified a role for disinhibition and externally driven eating shortly after surgery. In addition, research highlights a number of post-operative behaviours including grazing, binge eating, lack of physical activity and alcohol misuse as key contributors to weight regain (Goodpaster et al., 2015; Livhits et al., 2011; Meany et al., 2014; Yanos et al., 2015). In line with this, Wimmelmann et al. (2014a) carried out a review of the literature on the role of psychological factors in predicting weight loss and weight regain concluded that, although the literature remains inconsistent, there appears to be a role for baseline cognitive function, personality, mental health, composite psychological variables and binge eating which influence eating behaviour which turn impacts upon weight.

Quantitative research has also identified the predictors of poorer psychological outcomes. For example, some studies suggest that baseline psychological issues including diet, binge eating, depression and anxiety may relate to poorer outcomes following surgery although this evidence is mixed (Wimmelmann et al., 2014b; Sogg et al., 2016). Further, Rish et al. (2015) analysed pre- and post-surgical data from 390 individuals and found pre-surgical depression, symptoms of distress, disordered eating and lower self-esteem to be associated with increased concerns about body image following WLS.

The problem of suboptimal outcomes post-surgery has also been addressed using qualitative methods to explore the patient's perspective in depth. For example, Groven et al. (2010) interviewed 5 women in Norway who reported experiencing pain, loss of energy shame and failure post-surgery although they seemed to have lived 'normal' lives prior to the surgery with few signs of illness. Similarly, Lyons et al. (2014) held focus groups with 15 patients and reported a number of negative experiences including changes in body image, particularly due to excess skin. A recent review of qualitative research in this area synthesised 32 qualitative studies of patient's

experiences after surgery and highlighted the key role of control, normality and ambivalence (Coulman et al., 2017).

Qualitative research has also identified some possible explanations for these poorer outcomes and illustrates a role for lack of support (Lyons et al., 2014), problems with dietary adherence (Natvik et al., 2013), lack of preparation for surgery and unrealistic expectations (Ogden et al., 2011; 2015; Zijlstra et al., 2009); although the role of baseline goals and expectations was not supported by the findings of White et al. (2007). Furthermore, research exploring those who have either been successful or less successful post-surgery (Ogden et al., 2006; 2011) indicates that whilst successful surgery was associated with a sense of being more in control of food intake, a reduction in hunger and preoccupation with food; less successful surgery was associated with feeling unprepared and unsupported for the changes required after surgery, a sense that psychological issues remain neglected and a belief that the surgery itself hadn't been effective. Further, Ogden et al. (2015) interviewed 7 patients post plastic surgery, post WLS who reported shame, guilt and self-criticism as barriers to successful adaptation post-surgery and qualitative studies by Magdaleno et al. (2011) and Natvik et al. (2013) highlighted the role of defencelessness and distress in patients adjusting to their new thinner body.

Research therefore indicates that a minority of patients show suboptimal outcomes post WLS in terms of weight loss and psychological issues. Quantitative research has identified a number of predictors of patient outcomes and highlights a role for baseline psychological variables and post-operative behaviours. In contrast, qualitative research has focused on the patient perspective and emphasises the need for greater preparation, additional support and the management of more realistic expectations. Both such approaches emphasise the patient's perspective which is key to understanding the surgical journey and factors that may or may not influence patient outcomes. However, given the emphasis within bariatric surgery on the MDT and patient outcomes as a product of input from a number of different professionals (e.g. Sogg et al., 2016; O'Kane et al., 2016; O'Kane & Barth, 2016; Barth & O'Kane, 2016) it may also be useful to gain further insights from an alternative perspective. One perspective that might be of use is that of the bariatric surgeon who not only has an overview of the patient's history and has seen the patient progress from before to after surgery but has also been involved in MDT meetings concerning the patient and therefore has an insight into both the physical and psychological factors involved in their care. Furthermore, understanding the perspective of the bariatric surgeon is the key as they help to decide whether a patient is suitable for surgery, determine the support that may be required, and are in a position to support and guide the patient both pre- and post-surgery. To date, although research has used qualitative methods to explore the perspective of other members of the MDT including nurses (Whitfield & Grassley, 2008) and surgery practitioners (Jumbe & Meyrick, 2018) and quantitative methods have been used to survey the views of all members of the MDT (Coulman et al., 2017) no research has provided an in depth account of surgeons' views of suboptimal outcomes post bariatric surgery.

The aim of the present study was therefore to explore the problem of physical and psychological suboptimal outcomes post WLS from the perspective of the bariatric

surgeon and to explore how they made sense of patient outcomes. Using a critical incident approach, surgeons were asked to consider one specific patient who had experienced suboptimal outcomes and to offer their account as to why this might be the case.

Method

Design

The study used a qualitative design with a critical incident approach whereby surgeons were asked to focus on one case patient who had experienced suboptimal outcomes.

Participants

Participants were 8 male and 2 female bariatric surgeons from London ($n = 4$), the South of England ($n = 4$), the North of England ($n = 1$) and the Midlands ($n = 1$). In terms of ethnicity, they were White British ($n = 5$), Iranian ($n = 1$), Asian ($n = 2$) and White European ($n = 2$). Bariatric surgeons were recruited by email using a combination of convenience and snowball sampling methods. In total, 19 surgeons were approached directly and 10 were interviewed. Surgeons were included if they were currently involved in WLS in private and NHS practice and had a detailed case of a patient who had experienced suboptimal outcomes from surgery. All were experienced bariatric surgeons who had practiced for more than 10 years.

Procedure

Favourable ethical approval was received by the University Ethics Committee. Potential participants were emailed an information sheet and consent form. Interviews were conducted by telephone at a time convenient to the surgeon and lasted between 14 and 31 minutes ($M = 19.4$). Due to the confidential nature of the information being shared during the interview, surgeons were asked not to disclose the name of the patient being discussed. Interviews were audio recorded using a voice recorder. All interviews were transcribed verbatim and surgeons were assigned a pseudonym.

Interview schedule

A semi-structured interview schedule with a critical incident approach was used. The application of a critical incident technique (Flanagan, 1954) to qualitative interviews has been demonstrated elsewhere (e.g. Bradley, 1992; Muir & Ogden, 2001) and can generate rich and varied data by asking participants to recall specific and concrete examples. Interviews began by introducing the researcher and the study and gaining verbal consent for quotes to be used anonymously in the study write-up. Surgeons were then asked to introduce the case patient's background and history, describe the professional input received prior to the surgery including the decisions made, explain what happened to the patient following surgery, and their reflections on the case.

Data analysis

The transcripts were analysed using thematic analysis following the five stages of Thematic Analysis: 'data familiarisation', 'initial coding generation', 'searching for themes', 'reviewing and refining themes' and 'theme definition and labelling' (Braun & Clarke, 2006). In the present study, transcripts were read and re-read by the researchers before being systematically coded line by line. Codes and their attached quotations were then collated using a Microsoft Excel spread sheet and organised into a number of initial themes. From this initial collation, patterns were reviewed and sorted into main themes and sub-themes ready for written analysis. Interpretation was inductive, meaning themes were grounded in the data, as evidenced by the quotations selected. Analysis was an iterative process involving discussions between the two researchers taking into account their own positions and expectations.

Reflexivity

All interviews were carried out by female psychology researchers, none of whom were obese or had had WLS. Most interviewees were male surgeons with a wealth of experience in bariatric surgery. Although our membership of a different discipline may have been disadvantageous, in practice, requests by us for more detail often led to explanations and elaborations which incorporated reference to the individual and wider contextual challenges faced in the delivery of WLS. However, our psychological discipline may also have encouraged surgeons to focus more on psychological explanations of poorer outcomes.

Results

The cases

Surgeons discussed a single case each and reflected on a variety of outcomes which were described as contrary to the desired outcome of healthy weight loss. These included five cases where patients lost too much weight and required medical intervention to prevent starvation and malnourishment; one case where a patient was unable to follow post-surgical medical advice and underwent further surgery to reverse the gastric band following concerns for their ability to self-care; one case where the patient began to over-eat following surgery, thereby hindering weight loss; a case where a patient complained of dissatisfaction with the surgery, stating that they had expected it to be more difficult to eat and specifically wanted to experience difficulty eating and a feeling of restriction; one instance where a patient experienced significant psychological issues following surgery; and one case where the patient repeatedly complained of abdominal pain, vomiting and difficulty eating throughout the course of five years post-surgery and had multiple tests and operations to look for physical causes although none were found. In all but one case, these outcomes were identified within 1 year of surgery occurring, the earliest complication being identified at one-month follow-up. One patient was responding well until 18 months post-surgery when her problems started. Surgeons described how all patients had been

managed within the framework of a MDT with different health care professionals feeding into the medical decision-making process.

The themes

Coding and organisation of the data led to the development of three main themes each with sub-themes. These themes will now be discussed and illustrated with exemplar quotes.

Theme one: Challenges to success

All surgeons emphasised the key role of patient factors as challenges to the success of WLS. These focused on underlying psychosocial issues, poor adherence and patient disclosure.

Underlying psychosocial issues

Surgeons considered psychosocial issues as pertinent to poorer outcomes in the cases they described. For example, Peter explained how it is common for patients to present with issues following surgery, which he believes result from underlying psychosocial factors:

> *Many patients do suffer reactions you would not think are appropriate or normal because of an underlying psychological trait or history that colours their expectations and coping mechanisms*. (Peter)

Surgeons, however, were not always clear whether these issues were a cause or consequence of the surgery. As Amir described:

> *She's had on-going psychological difficulties and whether they've been made worse or changed by the weight loss I don't know*. (Amir)

Further, as Roger said, these psychosocial issues were sometimes masked by physical ones which made their management problematic.

> *I was questioning whether this is a physical illness or a psychological illness but it was hard to ignore her physical symptoms. I am always thinking am I missing something. So fearful of missing something so you may end up over treating. (Roger)*

Roger's case was a complex patient who repeatedly complained of abdominal pain, vomiting, difficulty eating who was readmitted multiple times over the course of 5 years for investigations and further surgery. He described how although he felt that something psychological may have been contributing to her case, as a surgeon he needed to focus on the physical problems.

At times, the psychosocial issues were related to the meaning of weight, and the surgeons reported how weight was used by the patient for psychological reasons. For example, Peter felt that his patient used weight gain as a defence mechanism:

> *In order to protect herself from male attention she would eat so that she was ugly and so she wouldn't get the attention* (Peter)

The meaning of weight was also illustrated by Daniel, but in contrast to Peter's case of weight gain, for this patient's weight loss was seen as a mechanism for expressing deeper issues:

> *The whole reason she was seeking surgery was to go down to a BMI of less than twenty-something so that the eating disorder service would take her back on … she was seeking help, or should I say attention*. (Daniel)

This also illustrates the role of patient's expectations of surgery and how these can undermine health outcomes. This is similarly described by Nathan who considered that his patient was using her weight as a method of control:

> *She was quite ridiculous unfortunately, she was using her operation as a way to control her family life as I see it … she's using the operation to take back some control*. (Nathan)

In this case, the patient severely restricted their food intake and rapidly lost weight, dropping to an unhealthy BMI of below 18.

Poor adherence

Alongside psychosocial issues, surgeons also described patient's adherence to post-operative behaviour change recommendations as a key challenge to achieving positive outcomes. For example, Prashant described how his patient simply struggled to cope after surgery:

> *What was more unexpected was her inability to cope with the diet. She was not able to cope with the small gastric pouch and with the new lifestyle of eating more often with the high protein diet. She was losing more weight than we would want her to lose. We were getting phone calls often each week as she couldn't cope with her life*. (Prashant)

Likewise, Nathan described ruling out alternative reasons for his patient's extreme reaction to surgery, before identifying behaviour as the influential factor in this case:

> *She lost too much weight because of behavioural problems, I excluded any anatomical problems … she was just non-compliant behaviourally*. (Nathan)

For some, this process of poor adherence was seen as willful and a choice. For example, Daniel said:

> *She's eating in an unhealthy way sort of, she's not eating … she eats what she wants when she wants to, she'll do whatever she chooses to do*. (Daniel)

Likewise, Claudia expressed frustration at her patient whom she saw as becoming increasingly 'fussy' about food which contributed to her dramatic weight loss:

> *Then post op because she couldn't eat chicken, couldn't eat chips, doesn't like milk … when the dietician tried to help her and we tried supplementing her diet it was 'oh no I don't like that, that's too milky, that's too this'* (Claudia)

This perception of choice is also seen in the account by Peter, who described how his patient actively tried to regain her lost weight:

> *She found that she couldn't really deal and cope with the male attention, so she started fighting her surgery and tried to eat again and put the weight back on*. (Peter)

This comment also illustrates how patient's expectations of the outcomes of surgery can result in poor adherence post-surgery. For example, as described above in Peter's case, the patient wasn't expecting male attention, was shocked when she received it and so started to eat to prevent it from happening.

Patient disclosure

The final challenge described by the surgeons related to patient disclosure and reflected the role of patient cooperation and openness pre-surgery and the impact of withholding information on health outcomes. At times, this was described as simply not knowing about the patient's history and the impact of this on treatment decisions. As Peter said:

> *I would normally ask patients if they had any issues and none of them were flagged up and so she was treated in that regard. What we didn't realise was the traumatic nature of her prior behaviour*. (Peter)

Sometimes, this process of non-disclosure was also seen as illustrating the need for trust between doctor and patient:

> *If a patient comes to us and doesn't tell us things then we don't have any way of knowing the truth… you know, we won't go looking because you have to take the patient at face value*. (Daniel)

And similarly, Leila described how she wished she had known about her patient's history before operating. This patient developed Anorexia after surgery with a BMI of 17:

> *We couldn't have offered a bypass to a patient with an eating disorder, definitely, not even any weight loss procedure, it's the sort of thing that would be nice to know before!* (Leila)

Some surgeons, however, seemed to feel that patients actively mislead health professionals at their baseline assessments. For example, Kiran and Daniel emphasised how patients hide things:

> *They're so good at hiding things that you can't pick it up in a clinic… our radars are always switched on but unless you're a properly trained psychologist you're not going to pick subtle things up*. (Kiran)

> *I think she did also slightly manipulate the system by hiding things from us*. (Daniel)

The use of 'hiding' and 'manipulate' here illustrate a strong sense of patient choice and willfully not disclosing issues before their surgery. This is further reflected in the description by Claudia who said:

> *I think some patients are enough well read that when they see you they sometimes give you what they think you want to hear rather than the reality… I'm not saying that they're lying but you know, they've attended enough groups to know that if they say they're drinking lots of alcohol that you will have alarm bells ringing, if they tell you that they binge that you're going to* (Claudia).

Furthermore, Daniel clearly believed that some patients do not tell the truth:

> *Even if we had asked this lady [about her mental health history], I think she would've said no because you know, she's not somebody who would tell the truth… I struggle to think what else we could've done!* (Daniel)

In contrast, one surgeon felt that the responsibility ultimately lay with the health professionals and stated:

> *We seriously missed the fact that she'd been in a long-term abusive relationship and was not basically capable of looking after herself, let alone following the band instructions*. (Kiran)

In summary, surgeons described psychosocial issues, poor adherence and patient disclosure as key challenges to success post WLS. In particular, they highlighted the role of the meaning of weight and the use of both weight loss and weight gain as a defence mechanism, the inability to stick to the post operation dietary regimen and the failure of patients to disclose on-going mental health issues. This theme also illustrates a role for patient expectations in terms of the impact of weight loss on their lives and the requirements for behaviour change. Further, it highlights the role of choice, control and blame and the extent to which surgeons hold the patient responsible for their health after surgery.

Theme two: Solutions in an ideal world

This second theme describes the ways in which surgeons ideally wanted to address some of the challenges described above with a focus on the identification and management of the psychosocial issues impacting upon patient outcomes.

Identifying underlying psychosocial issues

The process of identifying psychosocial issues was seen to lie with a number of different people. Daniel believed that in an ideal world the general practitioner (GP) should highlight any existing psychological issues around the time of referral:

> *She was referred by her GP so I'm presuming her GP didn't know much of it or they knew but didn't tell us, so one could say that if the GP could be a bit more clear and provide detailed information on psychological background*. (Daniel)

In contrast, several surgeons felt that this was the domain for a psychologist. For example, Peter emphasised the need for a psychologist within the bariatric team:

> *She had an assessment with a dietician and me but no psychologists and I think we were all insufficiently aware or educated to make that kind of assessment about her vulnerability*. (Peter)

In contrast, Nathan seemed sceptical that the identification of psychosocial issues should fall to an individual health professional and called for the standardisation of assessment and the use of a validated tool:

> *We need to work on a psychological screening tool which is well validated to help us really flag up people like her… we need some kind of figure that can be cited on what may happen and so the patient themselves can be advised and say 'oh gosh, I've got a 20 per cent chance of relapsing'*. (Nathan)

Addressing underlying psychosocial issues

Surgeons also described who should address psychosocial issues once identified. For some, the answer to this remained unclear and as described by Amir varied according to which health professional is asked:

What's really interesting is the lack of knowledge around which professional should be providing mental health input. If you talk to psychologists they'll say it needs to be a psychologist… but if you talk to a psychiatrist they'll say it needs to be a psychiatrist and the answer is you probably need both. (Amir)

Some surgeons, however, felt that this was clearly the role of a psychologist. For example, Kiran argued that psychological issues should not only be identified by a psychologist but also addressed by one:

I think the ideal service would have a proper trained psychologist seeing everyone and having time to assess them fully and then I think that person would have time spent – 10, 12 and 16 sessions – doing whatever to provide them with new tools, new coping strategies et cetera. (Kiran)

Kiran also believed that such psychological input should continue post-surgery:

Perhaps everyone in an ideal world receives treatment from a psychologist 3 months post-surgery after that initial hit, just to see how they're getting on and intervene at that point if any problems develop. (Kiran)

Not all surgeons, however, shared this belief. For example, Oliver felt that although there is a need to address issues prior to surgery the emphasis should be on education rather than simply providing psychological assessment and treatment:

I would've given her a lot more pre-operative education, not necessarily psychological input, but education, more sessions with either me or the nurse or anyone, just to understand better her expectations. We were working with our own things that we thought were important and she was coming with her own things that she thought were important and they weren't actually all the same. (Oliver)

In summary, this theme illustrates the surgeon's views on providing solutions to the factors that undermine optimal outcomes post-surgery. In particular, they highlighted the need to identify and address psychosocial issues and provided a description of this process in an ideal world. Not all surgeons agreed on this process, however, and showed variability in who they felt should take responsibility both pre- and post-surgery.

Theme 3: Real-life compromise

The final theme developed from the interviews illustrated that although the surgeons could describe solutions to suboptimal outcomes in an ideal world; these solutions were subject to constraints in the real world and required a level of compromise. This involved working with available resources and balancing risk.

Working with available resources

Surgeons described a number of constraints which limited their ability to manage the challenges to optimal patient outcomes. One key constraint was financial which limited their access to patient support. Oliver summarises the financial limitations implications for his service:

We're trying to provide an amazing service on a shoestring budget and we don't have the resources to send all our patients to the psychologist for a long time prior to surgery (Oliver)

Similarly, Kiran describes more generally how offering an expanded service would put the service itself at risk due to cost implications:

> *If we start charging our bill for psychology and it goes up by 200–300 grand a year then the CCG (clinical commissioning group) would stop it* (Kiran)

For many, the main constraint was access to psychological support. For example, Amir stated:

> *You can't get access to clinical psychologists in primary care, there are very few of them and there aren't enough of them in secondary care to help the patients* (Amir)

This sentiment was also echoed by Peter:

> *The biggest difficulty is finding a psychologist with an interest; there are not enough of you!* (Peter)

Similarly, Claudia emphasised the need for a bariatric psychologist:

> *And certainly if we did have a bariatric psychologist at the time who could've given us a different perspective to her complex needs rather than just a generic psychiatrist* (Claudia)

Surgeons therefore identified constraints in terms of finance and staff. One surgeon however also highlighted the role of patient numbers which he attributed to political reasons as follows:

> *In a lot of places, because of the limited number of patients coming through to tier four services for whichever political reasons, teams find it hard not to operate on some people because otherwise their numbers are down* (Kiran)

Kiran believed that externally set targets, which needed to be met, influenced the clinical decision-making process with patients being offered surgery when this may not be the best intervention for them.

Balancing risk

Surgeons therefore described how limited resources imposed constraints upon how their patients were managed. This was reflected in their need to balance risk and to weigh up offering versus withholding surgery.

Many believed that surgery was the best treatment for obesity and that even though there was the risk of patients not doing as well as expected, they were prepared to take this risk. For example, Amir argued:

> *These patients can and do need help, WLS is hugely beneficial towards them … this is by far the best intervention we have for these patients and until something better comes along we'll carry on doing surgery* (Amir)

Amir also believed that it was impossible to know whether psychological issues were the causes of suboptimal outcomes and whether surgery exacerbated existing problems:

> *Which is the chicken and which is the egg … I don't know the answer. What we don't know of course is how she would've done if we didn't operate on her and my guess is she would've carried on being in just as much of a mess* (Amir)

Some also felt that the risks of surgery were low and the potential benefits great and that it was simply best to operate and deal with any problems later:

Part of me does believe that we just have to deal with everyone and then pick up the pieces after for those who need it – that's one strategy isn't it, when you've got so many patients to deal with and you know some of them are probably going to be ok (Kiran)

Some, surgeons also felt that with hindsight, although they would have preferred more support for the patient, they would have still operated:

I would've made the same decision but almost certainly would've insisted on a psychological assessment and if it would indicate to me CBT or some kind of program of therapy before surgery then we would've delayed surgery (Peter)

In contrast, however, a couple of surgeons expressed regret over the decision to operate and felt that with hindsight this was not the best outcome for the patient. For example, Daniel was clear that had he known in the past what he knew now surgery would not have been an issue:

If I had known what she was dealing with, she would not have been surgically attended to; she would have been discharged straight away. (Daniel)

Likewise, Kiran also seemed to regret the decision to operate:

I definitely don't think we'd have given her a band had we appreciated her mental state … if all of this information on this lady had been picked up, if she'd volunteered the information or we'd found out from the GP, I don't think any of us would've jumped into surgery quite so quickly. (Kiran)

Surgeons therefore weighed up the benefits of surgery against the possible risk of poorer outcomes. Some felt that surgery was generally the right approach and the risk was worth taking. In contrast, some felt that the wrong decision had been made and regretted that surgery had taken place. Others however, expressed a level of powerlessness and fatalism about the whole process and felt that it was almost impossible to get it right. As Prashant said whose patient lost too much weight too quickly?

Very difficult to pick up these patients as she was completely normal beforehand. No history of mental health problems. Very difficult to know – a small proportion of patients who will have difficulty to adapt after surgery. I don't think you can do anything different (Prashant).

Likewise, Leila also expressed a level of powerlessness:

It's very difficult to identify. With this guy in particular, I wouldn't have said he would end up this way. I'm not able to identify who is going to go well and not, I've had patients with bulimia who have come out being perfect. (Leila)

Reflecting this, Peter felt that he was just passively responding to the patient:

She was insistent that she didn't want to be overweight so we did the surgery. (Peter)

And as Nathan said, some felt that they couldn't get it right whatever they did:

We're damned one way or another (Nathan)

This final theme illustrates the impact of optimising patient's outcomes in the real world setting and highlights the limiting role of available resources and the need to balance risk. With hindsight, several felt that they would still operate, even knowing

what they know now due to the potential benefits of surgery and the uncertainty surrounding what is cause or effect. Some, however, expressed regret over the decision to operate given their patient's poor outcomes whilst a few seemed to feel quite fatalistic about the process and expressed a feeling that whatever they did they would be in the wrong.

Overarching theme: Responsibility

Surgeons therefore described the challenges to maximising the benefits of surgery, solutions to these challenges in an ideal world and the limitations imposed by real world constraints. Transcending these themes was the core notion of responsibility that permeated all components of the interviews.

At times, surgeons placed the responsibility for suboptimal outcomes with the patient. For example, in terms of the challenges to success, the patient is often described as being active and having choice with terms such as 'in order to protect herself' (Peter), 'seeking help or should I say attention' (Daniel) and 'using the operation to take back some control' (Daniel). This is also reflected in the word 'ridiculous' which illustrates the surgeon's frustration with the patient. Likewise, the patient is also seen as responsible for their poor adherence with statements such as 'she'll do whatever she chooses to do' (Daniel) and 'tried to eat again and put the weight back on' (Peter) reflecting choice and control. Many accounts also conceptualised the process of non-disclosure as willful and deliberate with phrases such as 'manipulate the system' (Daniel), 'good at hiding things' (Kiran) and 'she's not somebody who would tell the truth' (Daniel). Furthermore, when describing balancing risk, surgeons also reflected upon the patient's role in the process and with hindsight stated 'if she'd volunteered the information' (Kiran) and 'she was insistent' (Peter).

In contrast, however, the patient is sometimes seen more as a victim of their issues as reflected in the statement 'She's had on-going psychological difficulties and whether they've been made worse or changed by the weight loss I don't know' (Amir). In this example, the patient is seen as separate to her difficulties and therefore having less control over them. This is also reflected in the statement 'she couldn't cope with her life' (Prashant). Furthermore, surgeons often placed responsibility with factors outside of the patient. These included the GP 'if only … we'd found out from the GP' (Kiran), financial constraints 'a shoestring budget' (Oliver), lack of staffing 'finding a psychologist' (Peter) and 'political reasons' (Amir). Some also felt the responsibility lay with the surgeons themselves because they 'seriously missed the fact' (Kiran), were 'insufficiently aware or educated' (Peter) and some expressed regret stating 'she would have been discharged straight away' (Daniel) or 'you may end up over treating' (Roger). Most felt, however, that they could only work with the information they had as summed up by the statement 'We're damned one way or another' (Nathan) and were trying to do the best for their patients even if at times this went wrong. As Amir said 'until something better comes along, we'll carry on doing surgery'.

Therefore, permeating all interviews was a negotiation around the notion of responsibility, with surgeons working out where the responsibility for poor outcomes lay and whether the patient, external factors or themselves were to be held accountable.

Discussion

To date, research has used quantitative and qualitative methods to explore explanations for suboptimal outcomes for patients' post WLS with a focus on the patients' perspective. The present study aimed to explore an alternative perspective with a focus on the narratives of bariatric surgeons. The results illustrate three main themes relating to 'challenges to success'; 'ideal world solutions'; and 'real world compromise' with an overarching theme relating to the notion of 'responsibility'. These will now be discussed.

In terms of the challenges to success, surgeons highlighted the role of psychosocial issues and poor adherence. This focus on the role of the patient reflects much previous research using both qualitative and quantitative methods which has similarly identified variables such overeating, not following behavioural recommendations and mental health issues as undermining outcomes post-surgery (e.g. Meany et al., 2014; Sogg et al., 2016; Ogden et al., 2011; Coulman et al., 2017). The surgeons, however, also emphasised the importance of patient non-disclosure as a key challenge to success and indicated the ways in which patients either consciously or unconsciously 'hide' their problems and 'manipulate' the system at baseline to stay on the surgery pathway. This is a novel finding which has been missing from previous research focusing on patient's accounts (Natvik et al., 2013; Ogden et al., 2011; 2015; Zijlstra et al., 2009). Such patient focused research uses either questionnaires or interviews which are open to issues of social desirability whilst quantitative assessment tools or clinical interviews pre-surgery rely upon the patient being open, reflective and honest. The results from the present study indicate that the surgeons see this process as problematic and consider patient non-disclosure as a key factor in poorer outcomes in the longer term.

The surgeons also described ideal world solutions with a focus on identifying and addressing some of the challenges described above. In particular, they emphasised the role of the GP, psychologist, a screening tool or increased patient education as a means to improve the process of patient selection and management which reflects calls for the MDT and the need for more patient support pre- and post-surgery (Sogg et al., 2016; Mechanick et al., 2013; O'Kane et al., 2016; O'Kane & Barth, 2016; Barth & O'Kane, 2016). Surgeons, however, also emphasised real world constraints which limited their ability to produce optimal outcomes for all patients that included limited staffing, financial demands and targets. Further, they emphasised the need to weigh up the benefits of surgery against the potential risks. Whilst some voiced regret with hindsight that surgery had been carried out, most felt that they could only work with what they were told and some felt that the risk of poor outcomes was worth taking, given the potential benefits of surgery and the potential harm of leaving the patient obese without surgery.

Transcending these themes was the key role of responsibility with surgeons reflecting upon who they felt was responsible for suboptimal outcomes post-surgery. In the main, they emphasised the key role of the patient through their psychosocial issues and poor adherence but also addressed the role of external factors such as funding and politics. They also, however, particularly emphasised the problem of patient non-disclosure and how difficult it was to manage patients when key information was

withheld. Whilst not explicitly blaming patients, the surgeons expressed frustration that they only had access to limited information and were making clinical judgements without having the complete patient history. They also expressed scepticism that patients could be encouraged to be more open whatever the system in place due to their wish for surgery. This clearly contrasts with patient's explanations of suboptimal outcomes which tend to place responsibility with a lack of support and preparation from health care professionals and the failure of the surgery itself (Zijlstra et al., 2009; Ogden et al., 2011; Lyons et al., 2014),

There are some problems with this study that need to be considered. First, there is the problem of context. In line with qualitative methods, the sample was small to enable an in-depth analysis of the data. Within bariatric surgery, however, there are key contextual factors that impact upon patient care which vary between private and NHS settings, between different geographical locations, between different clinical teams and between different patient populations. The qualitative design together with the smaller size limits the extent to which the findings can be located within these varying contexts. It is therefore not clear whether the surgeons' narratives reflect those of surgeons per se or are only relevant to the specific context within which each surgeon works. Second, the study used a critical incident approach which may also be problematic. Such an approach enables the participant to give a focused and specific account of any given issue rather than a more generalised perspective. This facilitates detail and reflects the emphasis on an in depth approach core to qualitative methods. However, for the present study it may lead to an over emphasis on problems and barriers rather than success which may present a more biased approach to the effectiveness of bariatric surgery. Finally, there is the problem of the status of the data. Qualitative data enables an exploration of the participant's narrative rather than accessing some notion of truth or reality. Accordingly, the data in this study illustrate how surgeons make sense of their patient's outcomes rather than the causes behind their outcomes. The results could therefore be interpreted to mean that patients sometimes mislead health professionals, that they need better assessments pre-surgery, that MDTs are not always working effectively, that communication between primary and secondary care is sometimes flawed and that best practice guidelines for bariatric patients are not always followed which would have direct implications for service delivery and be in line with recent calls to improve the provision of bariatric surgery (O'Kane et al., 2016; O'Kane & Barth, 2016; Barth & O'Kane, 2016). However, as arising from qualitative methods, the surgeon's data simply illustrates their accounts of patient's outcomes and should be read as such, rather as being seen as providing insights into service delivery. Therefore, although the results from this study may have implications for practice these implications should be tentative given the status of the data collected.

To conclude, previous research addressing suboptimal outcomes post WLS has focused on the patient's perspective using either quantitative methods or in depth patient interviews. By interviewing surgeons, the present study sought an alternative perspective on this problem yet many of the findings reflect patient based research indicating a role not only for structural factors such as finance and politics but also patient's psychosocial issues and poor adherence. This alternative perspective,

however, also pointed to a key role for patient non-disclosure which surgeons see as a crucial factor in the surgery journey. This resulted in a reflection upon the issue of responsibility and a sense that if patients choose not to tell, then surgeons can only work with the information they have been given. These results have tentative implications for service development and indicate that improved communication between patients and members of the MDT may improve patient outcomes. The surgeons in the present study, however, expressed doubt that such honest communication could ever be entirely achieved and felt that they were 'damned one way or another'.

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References

Bak, M., Seibold-Simpson, S. M., & Darling, R. (2016). The potential for cross-addiction in post-bariatric surgery patients: Considerations for primary care nurse practitioners. *Journal of the American Association of Nurse Practitioners*, *28*(12), 675–682.

Barth, J. H., & O'Kane M. (2016). Obesity services: How best to develop a coherent way forward. *Clinical Endocrinology (Oxford)*. *84*(3), 321–324.

BOMSS. (2014). *Providing bariatric surgery: BOMSS standards for clinical services & guidance on commissioning*. London: British Obesity & Metabolic Surgery Society; http://www.bomss.org.uk/wp-content/uploads/2014/04/Commissioning-guide-weight-assessment-and-management-clinics-published.pdf

Bradley, C.P. (1992). Uncomfortable prescribing decisions: A critical incident study. *BMJ*, *304*(6822), 294–296. https://doi.org/10.1136/bmj.304.6822.294

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

Burgmer, R., Legenbauer, T., Müller, A., de Zwaan, M., Fischer, C., & Herpertz, S. (2014). Psychological outcome 4 years after restrictive bariatric surgery. *Obesity Surgery*, *24*(10), 1670–1678.

Colquitt, J. L., Pickett, K., Loveman, E., & Frampton, G. (2014). Surgery for weight loss in adults. *Cochrane Database of Systematic Reviews*, *8*, CD003641.

Coulman, K. D., MacKichan, F., Blazeby, J. M., Owen-Smith, A. (2017). Patient experiences of outcomes of bariatric surgery: A systematic review and qualitative synthesis. *Obesity Reviews*. *18*(5):547–559. doi:10.1111/obr.12518

Coulman, K. D., Howes, N., Hopkins, J., Whale, K., Chalmers, K., Brookes, S.; By-Band-Sleeve Trial Management Group, … &, Rogers, C. A. (2016). A comparison of health professionals' and patients' views of the importance of outcomes of Bariatric Surgery. *Obesity & Surgery*. *26*(11): 2738–2746.

Courcoulas, A. P., Christian, N. J., Belle, S. H., Berk, P. D., Flum, D. R., … Patterson, E. J. (2013). Weight change and health outcomes at 3 years after bariatric surgery among individuals with severe obesity. *JAMA*, *310*(22), 2416–2425.

Flanagan, J.C. (1954). The critical incident technique. *Psychological Bulletin*, *51*(4), 327–358.

Gloy, V. L., Briel, M., Bhatt, D. L., Kashyap, S. R., Schauer, P. R., Mingrone, G., & Nordmann, A. J. (2013). Bariatric surgery versus non-surgical treatment for obesity: a systematic review and meta-analysis of randomised controlled trials. *BMJ*, (*clinical research ed.)*, *347*, 1–16.

Goodpaster, K., Marek, R., Ashton, K., Lavery, M., Rish, J. M., & Heinberg, L. (2015). Grazing eating among Bariatric surgery candidates: Prevalence and psychsocial correlates. *Surgery for Obesity and Related Diseases*, *11*(6), 50–51.

Groven, K. S., Råheim, M., & Engelsrud, G. (2010). "My quality of life is worse compared to my earlier life." Living with chronic problems after weight loss surgery. *International Journal of Qualitative Studies on Health and Well-Being*, *5*(4), 1748–2631.

Jumbe, S., & Meyrick, J. (2018). Contrasting views of the post-bariatric surgery experience between patients and their practitioners: A qualitative study. *Obesity Surgery*, *28*(8):2447–2456.

Karmali, S., Brar, B., Shi, X., Sharma, A. M., de Gara, C., & Birch, D. W. (2013). Weight recidivism post-bariatric surgery: A systematic review. *Obesity & Surgery*, *23*(11), 1922–1933.

Konttinen, H., Peltonen, M., Sjöström, L., Carlsson, L., & Karlsson, J. (2015). Psychological aspects of eating behavior as predictors of 10-y weight changes after surgical and conventional treatment of severe obesity: results from the Swedish Obese Subjects intervention study. *The American Journal of Clinical Nutrition*, *101*(1), 16–24.

Livhits, M., Mercado, C., Yermilov, I., Parikh, J. A., Dutson, E., Mehran, A., … & Gibbons, M. M. (2011). Patient behaviors associated with weight regain after laparoscopic gastric bypass. *Obesity Research & Clinical Practice*, *5*(3), 258–265.

Lyons, K., Meisner, B. A., Sockalingam, S., & Cassin, S. E. (2014). Body image after bariatric surgery: A qualitative study. *Bariatric Surgical Practice and Patient Care*, *9*(1), 41–49.

Magdaleno, R., Chaim, E. A., Pareja, J. C., & Turato, E. R. (2011). The psychology of bariatric patient: what replaces obesity? A qualitative research with Brazilian women. *Obesity Surgery*, *21*(3), 336–339.

Meany, G., Conceição, E., & Mitchell, J. E. (2014). Binge eating, binge eating disorder and loss of control eating: Effects on weight outcomes after bariatric surgery. *European Eating Disorders Review*, *22*(2), 87–91.

Mechanick, J. I., Youdim, A., Jones, D. B., Garvey, W. T., Hurley, D. L., McMahon M. M., & Heinberg L. J., (2013). American Association of Clinical Endocrinologists; Obesity Society; American Society for Metabolic & Bariatric Surgery. Clinical practice guidelines for the perioperative nutritional, metabolic, and nonsurgical support of the bariatric surgery patient-2013 update: cosponsored by American Association of Clinical Endocrinologists, The Obesity Society, and American Society for Metabolic & Bariatric Surgery. Obesity (Silver Spring). 21(Suppl 1), S1–S27.

Muir, E. H.,& Ogden, J., (2001). Consultations involving people with congenital disabilities: Factors that help or hinder giving care. *Family Practice*, 18, 419–424.

Natvik, E., Gjengedal, E., & Råheim, M. (2013). Totally changed, yet still the same: Patients' lived experiences 5 years beyond bariatric surgery. *Qualitative Health Research*, *23*(9), 1202–1214.

National Institute for Health and Clinical Excellence (NICE). (2009). Specifying a bariatric surgical service for the treatment of people with severe obesity. Retrieved from http://www.nice.org.uk/usingguidance/commissioningguides/bariatric/CommissioningABariatricSurgicalService.jsp.

NICE quality statement for follow up care after bariatric surgery (NICE). (2016). https://www.nice.org.uk/guidance/qs127/chapter/quality-statement-6-follow-up-care-after-bariatric-surgery.

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

Ogden, J., Avenell, S., & Ellis, G. (2011). Negotiating control: Patients' experiences of unsuccessful weight loss surgery. *Psychology and Health*, *26*(7), 949–964.

Ogden, J., Clementi, C., Aylwin, S., & Patel, A. (2005). Exploring the impact of obesity surgery on patients' health status: A quantitative and qualitative study. *Obesity & Surgery*, *15*(2), 266–272.

Ogden, J., Birch, A., & Wood, K. (2015). 'The wrong journey': Patients' experience of plastic surgery post weight loss surgery. *Journal of Qualitative Health and Exercise*, *7*, 294–308.

O'Kane, M., Parretti, H. M., Hughes, C. A., Sharma, M., Woodcock, S., Puplampu, T., … Barth, J. H. (2016). Guidelines for the follow-up of patients undergoing Bariatric surgery. *Clinical Obesity*, *6*(3), 210–224.

O'Kane, M., & Barth, J. H. (2016). Nutritional follow-up of patients after obesity surgery: Best practice. *Clinical Endocrinology (Oxf)*. *84*(5), 658–661.

Rish, J. M., Pona, A., Lavery, M., Heinberg, L., & Ashton, K. (2015). Depression, eating behaviors, self-esteem and early body image concerns after Bariatric surgery. *Surgery for Obesity and Related Diseases*, *11*(6), 52–53.

Sogg, S., & Gorman, M. J. (2008). Interpersonal changes and challenges after weight loss surgery. *Primary Psychiatry*, *15*(8), 61–66.

Sogg, S., Lauretti, J. and West-Smith, L., (2016). Recommendations for the presurgical psychosocial evaluation of bariatric surgery patients. *Surgery for Obesity and Related Diseases*, 12(4), 731–749.

Strain, G. W., Kolotkin, R. L., Dakin, G. F., Gagner, M., Inabnet, W. B., Christos, P., & Pomp, A. (2014). The effects of weight loss after bariatric surgery on health-related quality of life and depression. *Nutrition & Diabetes*, *4*(9), e132.

White, M., Masheb, R., Rothschild, B., Burke-Martindale, C., & Grilo, C. (2007). Do patients' unrealistic weight goals have prognostic significance for Bariatric surgery? *Obesity Surgery*, *17*(1), 74–81.

Whitfield, P. J., & Grassley, J. (2008). Nurses' experiences of caring for postoperative bariatric patients. *Bariatric Nursing and Surgical Patient Care*, *3*(4), 291–298.

Wimmelmann, C. L., Dela, F., & Mortensen, E. L. (2014a). Psychological predictors of weight loss after Bariatric surgery: A review of the recent research. *Obesity Research & Clinical Practice*, *8*(4), 299–313.

Wimmelmann, C. L., Dela, F., & Mortensen, E. L. (2014b). Psychological predictors of mental health and health-related quality of life after Bariatric surgery: A review of the recent research. *Obesity Research & Clinical Practice*, *8*(4), 314–324.

Yanos, B. R., Saules, K. K., Schuh, L. M., & Sogg, S. (2015). Predictors of lowest weight and long-term weight regain among Roux-en-Y Gastric bypass patients. *Obesity Surgery*, *25*(8), 1364–1370.

Zijlstra, H., Boeije, H. R., Larsen, J. K., van Ramshorst, B., & Geenen, R. (2009). Patients' explanations for unsuccessful weight loss after laparoscopic adjustable gastric banding (LAGB). *Patient Education and Counselling*, *75*(1), 108–113.