It just made me feel so desolate': Patients' narratives of weight gain following laparoscopic insertion of a gastric band

Efstathiou, Nikolaos; Hewison, Alistair

DOI:
10.1111/jocn.14072

Title

'I*t just made me feel so desolate*': Patients' narratives of weight gain following laparoscopic insertion of a gastric band

Abstract

Aims and objectives: To describe the experiences of patients who have failed to maintain weight loss following the insertion of a Laparoscopic Adjustable Gastric Band (LAGB) for the treatment of morbid obesity.

Background: Obesity is a global health problem resulting in physical, psychological and economic problems, and presenting challenges for health services. Surgical intervention is an increasingly common approach to treatment, however some patients do not sustain their weight loss following bariatric surgery and little is known about people's longer-term experiences following LAGB insertion.

Design: A narrative based qualitative interview study.

Methods: A purposive sample of ten participants who had undergone LAGB insertion for morbid obesity was recruited. Semi-structured interviews were conducted in 2014. Thematic analysis identified codes and emerging themes common to the participants' experiences.

Findings: Three major themes emerged: living with the side effects; regret; and lack of support. These reflect the difficulties participants experienced and provide new insights on why weight loss is not sustained after two years following surgery.

Conclusion: Participants reported that the surgery had a detrimental effect on their lives and some regretted having the band inserted. These findings identify areas of care that need to be addressed if patients undergoing LAGB are to experience its potential benefits and indicate that further research is needed into the long-term effects of gastric band insertion. Patients need to be better informed about the consequences of bariatric surgery if it is to have a lasting impact on their weight reduction.

Relevance to clinical practice: Patients require comprehensive information and support before and after LAGB insertion in order to develop strategies which will help them lose weight and sustain it over the longer-term. Clinicians need to be sensitive to patients' needs when weight loss plateaus or weight is regained and intensify support during these periods.

Keywords: bariatric surgery, narrative, nursing, obesity surgery, qualitative, weight loss

What does this paper contribute to the wider global clinical community?

- Laparoscopic adjustable gastric band (LABG) insertion is one of the most common bariatric surgical techniques used in the treatment of morbid obesity. However, following LABG, some patients do not always sustain their weight loss and some regain weight, which can affect all aspects of their lives.
- The dramatic weight loss following LAGB insertion is described as a positive experience, however when weight-loss plateaus patients tend to focus mostly on the negative effects of having a gastric band. These negative effects lead to distress and feelings of regret for having had the gastric band inserted.
- Patients require information and support before and after LAGB insertion in order to develop strategies which will help them lose weight and sustain their weight loss over the longer term. Psychological and self-support interventions need to be explored further in relation to this particular group of patients and be evaluated for their long-term effect.

INTRODUCTION

The incidence of obesity has more than doubled since 1980, and in 2014 there were 600 million people who were classified as obese (WHO 2016). Obesity is a major public health issue (Buchwald & Oien 2009), resulting in adverse outcomes for obese individuals including physical co-morbidities, poor quality of life, reduced psychosocial functioning and economic hardship (Mamplekou *et al.* 2005, Cochrane 2008, van Hout & van Heck 2009). Bariatric surgery has been identified as the intervention of choice when dietary interventions to reduce weight have failed (Buchwald & Oien 2009, National Institute for Health and Care Excellence [NICE] 2006). The rate of Laparoscopic Adjustable Gastric Band (LAGB) insertion in particular has increased (Pataky *et al.* 2011). For example, the number of bariatric surgery procedures performed in England increased from around 470 in 2003/04 to over 6,500 in 2009/10 (National Obesity Observatory 2010) and It is now a common procedure in Australia, the United States and most parts of Europe (Buchwald & Oien 2009). Despite the rise in the number of LAGB procedures undertaken, there is little research investigating patients' experiences following surgery. This paper reports a study which described patients' accounts of the period following surgery which revealed how they struggled to maintain weight loss in the longer term and how they made sense of what they had experienced.

Background

Bariatric surgery is regarded as an effective method of weight loss treatment for obesity and LAGB insertion is one of the most common interventions available (Buchwald & Oien 2009). It involves placing a silicone band around the upper stomach below the gastro-oesophageal junction and injecting saline into the band to tighten it. The rationale is that the pressure on the stomach will result in early satiety and thus induce a feeling of 'fullness' for a longer period after eating.

Patients who undergo LAGB insertion can achieve losses of between 35-50% of excess weight in the first three to 36 months post-surgery (Scholtz *et al.* 2007, O'Brien *et al.* 2013) and experience a reduction in a range of comorbidities including type 2 diabetes, hypertension, dyslipidaemia, osteoarthritis, obstructive sleep apnoea syndrome, and metabolic syndrome (O'Brien *et al.* 2006a, Favretti *et al.* 2007). Systematic reviews of studies of LAGB patients' maintenance of weight loss indicate there is significant weight loss at 12-24 months and a steady but negligible weight loss following that period (Chakravarty *et al.* 2012, O'Brien *et al.* 2013). However, there can be weight gain in the two years following surgery. Conceição *et al.* (2014) found that 17% of the 62 LAGB patients in their study experienced weight regain two years after surgery. Moreover, LAGB is not without risk, and complications include band slippage/migration, gastric necrosis, oesophageal dilatation, and erosion of the gastric wall by the band (Chevallier *et al.* 2004). Despite these risks, NICE (2006) recommends LAGB insertion for patients diagnosed as morbidly obese (Body Mass Index of over 40kg/m^2 or 35kg/m^2) with co-morbidities such as diabetes and hypertension, and it has become a treatment of choice worldwide (Pataky *et al.* 2011).

It has been suggested that long term support is vital if patients are to maintain weight loss following LAGB insertion (Nicolai *et al.* 2002, Liebl *et al.* 2016), and if this is to be provided, greater understanding of the patient experience is required. In view of this, the study reported here was undertaken to describe the experiences of patients following LAGB insertion for morbid obesity whose weight loss plateaued or who regained weight two years after surgery.

THE STUDY

Aim

The aim of the study was to describe the experiences of patients who had failed to maintain weight loss following LAGB insertion for the treatment of morbid obesity. The intention was to access the patients' accounts in order to understand the impact the procedure had on their lives two years or more following surgery.

Design

In view of the lack of existing research in this area, an exploratory descriptive approach was chosen to explore the nature and meaning of the patients' experiences (Holloway 2005). A qualitative approach (Holloway & Wheeler 2010) informed by narrative as an interpretive framework (Mitchel & Egudo 2003) was taken. It has been noted that qualitative research can be conducted in dozens of ways, with many of these approaches having established traditions and conventions (Miles et al. 2014). However, they share a key concern with exploring the ways people in particular settings come to understand, account for, take action and manage their day-to-day situations (Miles & Huberman 1994, p7). In qualitative research, it is essential to uncover the constructions of participants which involves accessing such constructions and exploring their meaning (Lincoln & Guba 2013). Lincoln & Guba (2013) go on to stipulate that all methodologies should fit with the ontological assumptions of the work. One way of addressing this is through an explanatory narrative approach which seeks to render an account of why something happened though a narrative (Sandelowski 1991). This is consistent with a constructivist ontology and in view of this the overall design of the study was informed by the principles of the narrative approach, that is the investigation of Illness narratives, which are the storied accounts of ill people and their informal carers - typically recounted in semi-structured or unstructured research interviews

(Thomas 2010). Research focused on patient illness narratives has made an important contribution, particularly to sociological understanding of the patient experience (Mathieson & Stam 1995, Radcliffe *et al.* 2013) and is also becoming more common in nursing (Wang & Geale 2015). There has been some lively debate concerning the extent to which the privileging of the respondents' accounts presents a limited perspective on phenomena (Thomas 2010), however accessing personal narratives can transcend the mere noting of the facts of the case (Exworthy 2011), and so offered the prospect of accessing key insights in this new area of the patient experience. This approach is well suited to the study of subjectivity and identity and reveals much about social life or culture, as culture speaks through stories (Mitchel & Egudo 2003). This offers the prospect of uncovering new or hidden data (Borland 1991, Harrison 1996) and because of the focus on encouraging the respondents to engage in storytelling, a conversational style of interviewing was used (Riessman 1993, Coates 1996). A narrative framework affords access to the human experience of time, order and change (Sandelowski 1991), in this case the experience of people after LAGB insertion. This involved conducting semi-structured interviews, which are appropriate for this approach (Thomas 2010, Muylaert *et al.* 2014).

Sample

A purposive sampling strategy (Kuzel 1992) was used and 70 patients (53 female, 17 male) who had undergone LAGB insertion between 2009 and 2012 in a hospital in the West Midlands of England were identified as potential participants for this study. Of the 35 patients who met the inclusion criteria (Table 1), 20 did not respond to the invitation to participate in the study. Twelve patients agreed to participate, however two did not respond to the interview invitation.

Data collection

The data collection was undertaken by a female researcher (FL) with experience in LAGB research, over a three-month period in 2014. The interview guide was developed following a comprehensive literature review and included questions designed to explore the effects of the LAGB on the patients' lives following insertion (Table 2). The semi-structured interviews followed a broadly chronological approach and the respondents were encouraged to talk about the antecedents to the surgery (including accounts of how they had put on weight in the first place), the decision to have a LAGB inserted, their narratives about life in the period following surgery, and the difficulties experienced in maintaining weight loss.

Participants chose the interview setting. Nine were interviewed in their homes and one in an interview room at the hospital. The interviews lasted between 60 to 90 minutes, were digitally recorded and transcribed verbatim.

All participants had been offered a follow-up care package for a minimum of 2 years by bariatric physicians and dieticians in the bariatric service consisting of physical health checks and advice about diet and exercise (NICE 2006, 2016). Two years after the operation, patients were discharged from the bariatric service and nutritional status monitoring was transferred to their general practitioner. Although individually tailored psychological support is advised, none of the participants recalled receiving psychological support. All participants confirmed that their weight loss had plateaued or that they were regaining lost weight.

The interviewer, during the interviews, established rapport with the participants and a calm, conversational approach was taken which facilitated open, honest discussions. During the interviews, the interviewer made contemporaneous notes on the participants' gestures and body language. This was done to record

additional detail concerning the context of the participants' responses. For example, where facial expressions or gestures accompanied comments made. Where relevant, these have been indicated in the data extracts appearing in the results. In this way these notes provided insights that were valuable in the analysis of the data because they enhanced understanding of the situation being studied (Rodgers and Cowles, 1993).

Ethical considerations

Ethical approval for the study was granted by the local Health Research Ethics Committee (13/WM/0286). The 35 participants who met the inclusion criteria were asked by the lead clinician of the weight management clinic they were attending if they would consider participating in a research project. If a patient expressed interest, an invitation letter and participant information leaflet were sent to their home address. The ten participants who agreed to participate signed an informed consent form and were advised that they were free to withdraw from the study at any point. Provision was made for psychological support in case any of the participants experienced distress during, or as a result of, the interview.

Data analysis

Thematic analysis was undertaken (Braun and Clarke 2006) because it has a clear structure, yet is flexible enough to encompass the overall narrative approach which informed the study design (Boyatzis 1998). The interviews were transcribed, the transcripts were read several times and the sound files were listened to on a number occasions to cross check for accuracy and to give attention to intonation and expression by one researcher (FL).

The interviews were coded initially for emerging core descriptive content, this involved assigning codes to particular words, sentences, phrases or entire

paragraphs and then grouping them into broader categories of data, before identifying the common themes in the data (Braun and Clarke 2006). This iterative process of charting and interpretation is used extensively in qualitative research (Srivastava & Hopwood 2009, Ryan & Bernard 2000) and is also central to a narrative approach (Brandner *et al.* 2014, Llewellyn *et al.* 2014,). One of the transcripts was analysed independently by all the researchers (NL, AH, NE) using the same method and similar themes were identified, enhancing the validity of the analysis (Burnard 1991). The data analysis resulted in the identification of three main themes which were agreed by all the researchers.

Rigour and Trustworthiness

Credibility in qualitative research is essential in establishing its trustworthiness (Lincoln & Guba 1985). The credibility of the findings from this study was enhanced using the narrative approach which encouraged honesty in reporting personal experiences. The primary researcher was an experienced obesity research nurse, who could establish rapport with the participants. Although participants were not asked to validate the findings, one transcript was analysed by all the researchers (Burnard 1991) and the primary researcher had frequent debriefing sessions with experienced qualitative researchers to discuss the findings. Detailed description of the findings is provided with illustrative data extracts which are discussed in terms of their congruence with previous work (Shenton 2004). The processes followed in this study have been described in detail to ensure clarity concerning the decisions taken at the planning stage and the steps taken during the study, demonstrating dependability (Lincoln & Guba 1985, Shenton 2004).

RESULTS

All the participants were women aged between 43 and 63 years old (mean 52.8). Their BMIs prior to surgery ranged from 37.2 to 50.6 kg/m^2 (mean 42.53kg/m^2). Only two participants were non-white (Table 3).

The participants described their experiences prior to LAGB insertion and explained their decision to have the band inserted. The initial effect of the intervention was described as a positive experience, however when weight loss plateaued, their experience became more complex as related in their narrative accounts. The themes in the data were: Living with the side effects; Regret; Lack of support.

Living with the side effects

Without exception, the participants identified the negative side effects of living with a gastric band, particularly the combination of the pain, regurgitation and vomiting they experienced.

> *I always used to sit nearest the end of the table I'd never sit in a corner because I'd have to get up quickly because I could feel it there (places hands on her upper chest) and be thinking oh no I've got a few seconds to get to the toilet and since I had the band done as soon as I go into a building I look to see where the signs are [for the toilets] just in case I'm going to be sick.* (Julie)

Once the band was in place eating larger portions of food caused pain, similarly when 'proper' food was eaten too quickly it would 'get stuck' which also resulted in discomfort. Proper food was described as chicken, salads, fresh fruit and vegetables; however, these were often avoided because eating them led to pain. Instead they ate the 'wrong foods' such as sweets, chocolate and foods high in saturated fat and sugar. This was reported to be necessary because eating chocolate and sweets did not cause the pain experienced when eating normal food.

> *I wasn't told when I had this [gastric band] that I would have to diet for the rest of my life I wasn't told about stuff getting stuck and all the vomiting and everything else ... if you overeat you will vomit because you've only got a small pouch like you know* (Mary)

Regurgitation, vomiting and the fear of vomiting were also common distressing side effects. The respondents explained how the unpredictability of vomiting led them to avoid social interaction, particularly family occasions, to prevent embarrassment, which in turn resulted in them feeling isolated from friends, colleagues and family.

> *…it just made me feel so desolate really, I mean the whole point of being on holiday is to enjoy yourself and have fun and I wasn't and I mean this was Disney in Orlando they have a lot of different restaurants and it's not as though I'd eaten a lot of big meals but for some reason some of it just had to come out and what it was it was a lot of great big windy reflux it was a lot of saliva that I was throwing up and so I had to watch the food, it made me feel rotten.* (Hera)

In response to the effects of LAGB the women developed ways to cope with it, for example 'cheating the band':

> *…you could cheat by having a mouthful of water and I know it's not the way to do it but that's what I did, that's the only way I could act normal round my children because they never knew. My husband did and he'd look at what I was having and be thinking you're going to choke now*. (Julie)

'Cheating the band' involved engaging in strategies to overcome the restrictions in dietary intake imposed by the LAGB. Examples included taking water to ease swallowing of larger amounts of food than could be accommodated following LAGB insertion-as noted above, and eating high calorie foods such as chocolate, that could be enjoyed without inducing discomfort even though the participants knew this should be avoided.

In some cases, coping with the side effects involved seeking solace in consuming the 'wrong' foods, not just because they were easier to eat, as noted earlier, but because it was a way of dealing with the problems they faced:

I'd have a bad day and I'd be back on the bad foods because I've got a sweet tooth and I want chocolate that would be on a bad day type of thing but I wouldn't stop at one I'd have to eat half the box or the whole bar and it would be like 200 grams at a time or more if I had it [chocolate] you see so now like two years on my health isn't that good. (Harpreet)

and

If anybody upsets me I think stuff it and I go down the shop and buy two or three bars of chocolate with nuts in and I eat all of them. (Pat)

The cumulative effect of living with the band was manifested in feelings of regret expressed by the women.

Regret

Most of the participants expressed feelings of regret for having undergone the operation. It appeared that the long-term expectations were high and when participants stopped losing weight the side effects felt unbearable and led some to feel they should not have had the operation in the first place. The impact of the weight loss in the initial stages following band insertion on the women resulted in feelings of 'elation'.

I never felt better in my life I didn't limp I didn't hobble and … at that point I'd only gone down to 20 stone you wouldn't believe the difference that made to my life because I'd carried all that weight for so long I was absolutely …over the moon and buying clothes. I remember that first Christmas that I'd lost the weight I went to a department store to get a dress and I stood there and I cried because I'd bought a dress from a normal shop because I never thought I could look like that and I stood in the changing room and sobbed. (Eve)

However, their accounts reflect the stark contrast in their feelings when they regained weight.

I was miserable as sin really uncomfortable, I hurt with my Arthritis because the weight doesn't help I hate myself again, I mean I've got all these clothes that I got when I lost the weight I'm still not back up to a 26 [dress size] at this moment but I look at all the clothes I got when I was thinner and it tears me apart, but I won't throw them out because I'm determined to get back in them but it rips me to pieces psychologically it's having a terrible effect on my well-being I'm just so down in the dumps. (Eve)

Many of the women spoke of regretting their decision to have a LAGB inserted because of the negative impact it had on their lives. Although it initially seemed to be a solution to the weight problems they had, it was clear this was not the case.

> *I sort of realised that this is your last chance … so I sort of knew I was taking a risk but it's what I had to do, take that risk as I wanted to get me old life back you know because it's been so life changing … I wanted to take charge of my life again and then the band, and I thought here was my opportunity to get some of the old me back but it didn't. (*Elizabeth)

Such feelings led one respondent to comment:

> *In the long term, I want it out I want it out so I can live a normal life.* (Mary)

This resulted from a combination of complex emotions and dissatisfaction with their own efforts:

> *I was livid I was really cross with myself I knew I'd got to make more of an effort to eat the right things.* (Monica)

However, the women interviewed in this study were unable to maintain their weight loss and felt their health had not improved following the LAGB insertion.

> *They didn't want me to have it because I'm not a very good healer. Give me a cold and I've got it for weeks. They didn't want me to have it because I never eat a lot anyhow and they reckoned I'd eat even less so I didn't have any help off them, no help at all I had no encouragement. It was my idea you know, I thought if I could lose some weight I'd feel better but when I lost it I felt worse".* (Pat)

Lack of support

The participants identified the lack of support they received before and after the surgery as a contributory factor in their inability to maintain weight loss. In terms of preparation for the procedure the respondents recalled that:

> *You are told things… you're given diagrams and you're told this is what's going to happen and you need to do this, you need to do that, you know? But how it's actually going to make you feel and how difficult it will be to eat or stick to a regimen … you're not helped really….* (Chris)

When thinking about this, one respondent suggested an approach that she would have found helpful.

> *You need someone who's had the band because they know what you're going through. I mean to get a stick insect for a dietician, I mean you get a big lady walking in to see a dietician and there's this sticky thing who says well you can't eat this and you can't eat that I mean you don't want that, you need someone who's probably had the op you've had and who knows what you're going through and knows how you feel*. (Pat)

In addition to the concerns expressed about pre-operative preparation, the participants recounted their experiences of their subsequent care and how this affected their ability to maintain weight loss. For some it was reported to be fairly minimal:

> *I had my op, I came out, they gave me a glass of water and discharged me, that was it, I had nothing I had a glass of water and they sent me home at half past eight in the morning.* (Jane)

For others, the support was either not available or was not appropriate.

> *…they just give you pamphlets…it means nothing but if they'd have sat you in a room altogether and talked to you about your food and portions and stuff, but you just go back and see a dietician she weighs you and talks to you about your food and then you go again. That's it, as soon as you walk out it's like anything, you don't bother and people just ram food back in their mouth and think oh I'll lose it for next time*. (Pat)

They felt there was a need for a different approach. Along with the surgery the respondents identified the need to develop a fundamental shift in the way they managed their dietary intake.

> *I think I was told when you first have the band done there's help that way and I never ever had any, never had any help on the mental side of it to try and restructure your brain because I'm never hungry here (points to her stomach) but I'm hungry in my head (points to head) my head's absolutely starving*. (Chris)

Similarly, Monica focussed on this need for help to re-order thinking to support continued weight loss.

> *If they could do something to your brain while you're having your band fitted I think that would be great because it's not your stomach … that tells you you want something to eat, it's your head. It's like your head's greedy but your stomach isn't. The old thoughts are still there, they haven't been dealt with like ... trying to pick and eat a more healthy diet that's what needs to be dealt with. The reasons why you eat the way you do and help to deal with it.* (Monica)

Many felt support should be offered on a long-term basis and that a range of options should be available to meet the complex needs of people in this situation. Suggestions included counselling with a psychiatrist or psychologist using Cognitive Behavioural Therapy (CBT) and support groups. For some there was a feeling that such support needed to be provided on a 'lifelong' basis and it was clear the respondents felt there was a lack of support to help them manage their weight loss:

> *I feel a little bit let down because after all this time I haven't got anyone I can turn to at the moment. I do feel … they're quick enough to resolve the problem, I feel let down they're not supporting me to maintain my weight I don't think you should be discharged until you say I want to be discharged.* (Jane)

DISCUSSION

The purpose of this research was to describe the experiences of patients who had failed to maintain weight loss following LAGB insertion for the treatment of morbid obesity. New insights are revealed on the long-term effects of living with a LAGB, as the participants were interviewed two years or more post LAGB insertion. The findings indicate a number of sequelae following LAGB insertion that had a negative impact on the lives of the participants. Participants also explained how this led to feelings of regret and that the lack of support they received contributed to a situation whereby the quality of their lives post LAGB insertion had not improved in the way they had hoped.

All the participants explained that they achieved significant weight loss in the first twelve to eighteen months following surgery. This initially had many positive effects on their health and emotional wellbeing. They described feelings of elation and joy at having lost considerable amounts of weight. Indeed, a number of participants were able to reduce or discontinue medication for hypertension, type 2 diabetes and dyslipidaemia, which has been found in earlier bariatric surgery related research (Brown *et al.* 2009). However, for the participants in this study the rate of weight loss slowed after eighteen months following LAGB insertion. This is consistent with work conducted by Bocchieri *et al.* (2002) and O'Brien *et al.* (2006b) who found the rate of weight loss plateaued between 18 and 24 months. It is at this point that many patients who have had LAGB insertion experience disappointment with the slowdown of weight loss and resume consumption of calorie dense food (O'Brien *et al.* 2006a).

The respondents found the pain, regurgitation and vomiting, which at times could be projectile, very distressing. Although patients who have had bariatric surgery are advised to eat small mouthfuls of food and chew it for a long period before swallowing (Brown *et al.* 2009), the participants in this study reported how they were unable to follow this guidance. This resulted in the development of a range of strategies to circumvent the limitations they felt the LAGB placed on them, and feelings of regret. To avoid the embarrassment and discomfort, they limited their social interactions and became isolated. The isolation could be detrimental to their physical and emotional wellbeing and can lead to anxiety and the development of depressive illness (Cacioppo & Hawkley 2003). Indeed, patients who have undergone gastric band insertion can experience high levels of depression, anxiety and chronic physical illness (Simon *et al.* 2006).

To avoid or reduce the distressing symptoms, participants reported 'cheating the band' which has similarities to the 'ways around the band' identified by Pfeil *et al.* (2014), although in their study the participants considered the distressing symptoms to be a 'reasonable price to pay' for the weight loss (Pfeil et al 2014). Indeed Pfeil et al (2014) report that their respondents felt these 'ways around the band' afforded them a greater feeling of control over their food intake and felt angry with those who did cheat. It should be noted however that data was collected 12-18 months after surgery when most of the participants were losing weight (Pfeil *et al.* 2014). The accounts might have been different if the study had been conducted when weight loss had plateaued. In contrast to the perception of the respondents in the Pfeil et al (2014) study that the 'enforced control' (p50) of the LAGB helped them and was paradoxically liberating, in the present study it was regarded as restrictive, negative and something to be circumvented. Also, this tendency to view the band as something 'other' to the individual and regarding it as something to be outwitted was also observed by Homer *et al.* (2016). In their study the participants saw the gastric band as a 'tool' to control eating and expected the surgery to remove their need to decide to eat or not. This desire to hand over control to an external source was also found by Ogden *et al.* (2011) who explored patients' experiences of unsuccessful weight-loss following bariatric surgery, including LAGB insertion. This is an important finding when considering how best to support patients in adjusting to the effects of such procedures.

The narratives of the participants indicate how their feelings toward the band and its effect on them changed over time. This was expressed as a form of regret for the 'lost self' prior to gaining weight in the first instance. They also experienced regret about the negative effects on family and friends and loss of their social

life. Although regret can act as a motivating force to corrective action (Markman *et al.* 2008), as a complex backward looking emotional experience, it is generally regarded as having a negative impact on wellbeing leading to emotional distress (Wrosch *et al.* 2005).

Participants felt they received little support either before or after insertion of the band and suggested a number of ways support could be offered to them by both specialists and self-help groups. Most of the participants acknowledged that they needed to change their relationship with food. However, evidence suggests that even when patients receive treatment to address their eating behaviour following LAGB insertion, their relationship with food is not completely modified, often resulting in weight gain (Liebl *et al.* 2016). This suggests that long term coping strategies need to be developed and health professionals could play an important part in helping patients adopt healthy eating behaviours (Kinzl *et al.* 2006, Liebl *et al.* 2016).

Interventions such as Cognitive Behavioural Therapy (CBT) have been effective for LAGB patients, with a systematic review demonstrating greater weight loss post operatively compared to those who did not receive CBT (Rudolph & Hilbert 2013). Similarly, another systematic review, concluded group counselling post bariatric surgery is associated with greater weight loss (Livhits *et al.* 2011). However, further research is required to establish whether the gains from these interventions are maintained long-term. Other interventions worthy of further consideration include self-help groups which offer emotional and practical support and empower members to develop positive coping strategies to deal with the negative aspects of their lives (Elakkary *et al.* 2006). Whilst the benefits of behavioural self-management intervention programmes such as the Expert Patient Programme and DESMOND for newly diagnosed type 2 diabetes have been

recommended for patients undergoing bariatric surgery (Homer *et al.* 2016), they would need to be adapted and tailored for the specific needs of patients in this situation. Crucially, NICE (2006, 2016) guidelines recommend that patients are discharged from secondary care after two years, the time when evidence, and the current study, suggest that weight loss levels-out and is a period when patients require further specialist support.

The accounts of the participants chart their progress from elation and rapid weight loss in the immediate post-operative period, to distress and regret as their weight loss plateaued and the reality of living with a gastric band became apparent. This resulted in several of the participants expressing the wish that they had not had the surgery. The narratives of the women reveal the stark iatrogenic (Illich 1977, 2003) effects of LAGB insertion which in turn indicate the areas of care that need to be modified if patients are to experience the benefits of LAGB insertion rather than its adverse effects.

Limitations

This study has a number of limitations. Despite both male and female patients being invited to participate, only women agreed to take part. This may be because women generally are more willing to talk about health issues (Möller-Leimkühler 2002) and reflects the fact that more women than men undergo LAGB insertion (Burns *et al.* 2010). Men's experiences may have been different to the ones described by the women in this study.

Ten participants could be considered a small sample, however views on the acceptable number of participants for qualitative studies vary depending on the nature of the study (Baker & Edwards 2012), and there is no consensus in this area (Sandelowski 1995). A sample of ten participants was considered appropriate for

the aims and scope of this study and provided rich narrative data. Participants were from one area in UK and their views may not reflect experiences or support provided in other geographical areas. However, similar findings have been identified in other studies (Bocchieri *et al.* 2002, O'Brien *et al.* 2006b, Pfeil *et al* 2014) suggesting the findings have some transferability.

Conclusion

This study described accounts of patients who did not maintain weight loss or regained lost weight in the longer term following LAGB insertion, and how they made sense of what they had experienced. Patients' narratives in this qualitative study captured the complex nature of their experiences. The main findings were that the participants had to adapt to living with a range of unanticipated side-effects of LAGB insertion, which had a negative impact on their lives; they experienced regret at having the procedure undertaken, with some expressing a wish to have the band removed; and they identified the lack of support received as one of the main reasons for not sustaining weight loss after two years following surgery. The major life changes experienced by patients following bariatric surgery can have a significant impact on health and wellbeing (Bocchieri et al. 2002) and if the potential benefits of LAGB insertion are to be realized then patients need to learn how to adjust to and live with the band on a day-to-day basis, which involves not just coping but also feeling psychologically supported (Morris et al. 2010).

Relevance to clinical practice

Patients who have undergone bariatric surgery need to adjust their lifestyle and diet to achieve the expected outcomes and sustain long-term weight loss. Clinicians

need to be aware of the challenges patients face in adjusting to life following LAGB insertion and provide adequate psychological support. This support needs to be provided on a long-term basis to ensure that psychological, dietary and lifestyle changes are sustained.

Clinicians working with patients prior to and following LAGB insertion need to be alert to patients' distress and anxiety so that timely support can be initiated. Nurses working in bariatric services could be equipped with the skills to provide simple psychosocial interventions in order to support patients who have undergone bariatric surgery. Clinicians should also ensure that these psychosocial interventions are evaluated for their long-term effectiveness.

Considering the increasing number of patients undergoing bariatric surgery and the concerns about its efficacy, health professionals are required to support patients to adjust to and live with the band on a day-to-day basis. In addition, helping patients to think differently about themselves, their relationship to food, and the need for a sustained change in lifestyle is essential if the negative impact of LAGB insertion is to be ameliorated.

References

Baker, S.E., & Edwards, R. (2012). *How many qualitative interviews is enough?* National Centre for Research Methods Review Paper. London: National Centre for Research Methods Review Paper/Economic and Social Research Council.

Bocchieri, L.E., Meana, M., & Fisher, B.L. (2002). A review of psychosocial outcomes of surgery for morbid obesity. Journal of Psychosomatic Research**,** 52 (3), 155-165.

Borland, K. (1991) That's not what I said: Interpretive conflict in oral narrative research. In *Women's Words: The Feminist Practice of Oral History* (Berger Gluck, S. & Patai, D. eds.). New York: Routledge, pp. 63–76.

Boyatzis, R.E. (1998) *Transforming Qualitative Information: Thematic Analysis and Code Development*. Thousand Oaks: Sage.

Brandner, S., Müller-Nordhorn, J., Stritter, W., Fotopoulou, C., Sehouli, J. & Holmberg, C. (2014) Symptomization and triggering processes: Ovarian cancer patients' narratives on pre-diagnostic sensation experiences and the initiation of healthcare seeking. *Social Science & Medicine* **119**, 123-130.

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

Brown, W., Korin, A. & Burton, P. (2009) Laparoscopic adjustable gastric banding. Effects, side effects and challenges. *Australian Family Physician* **38** (12), 972-976.

Buchwald, H. & Oien, D.M. (2009) Metabolic/bariatric surgery worldwide 2008. *Obesity Surgery* **19**, 1605– 1611.

Burnard, P. (1991) A method of analysing interview transcripts in qualitative research. *Nurse Education Today* **11**, 461–466.

Burns, E.M., Naseem, H., Bottle, A. Lazzarino, A.I., Aylin, P., Darzi, A., Moorthy, K. & Faiz, O. (2010) Introduction of laparoscopic bariatric surgery in England: observational population cohort study. *BMJ* **341**, c4296

Cacioppo, J.T. & Hawkley, L.C. (2003) Social Isolation and health, with an emphasis on underlying mechanisms. *Perspectives in Biology and Medicine* **46** (3), S39-S52.

Chakravarty, P.D., McLaughlin, E., Whittaker, D., Byrne, E., Cowan, E., Xu, K., Bruce, D.M., Ford, J.A. (2012) Comparison of laparoscopic adjustable gastric banding (LAGB) with other bariatric procedures; a systematic review of the randomised controlled trials. *The Surgeon* **10**, 172-182.

Chevallier, J.M., Zinzindohoué, F., Douard, R., Blanche, J.P., Altman, J.J. & Cugnenc, P.H. (2004) Complications after laparoscopic adjustable gastric banding for morbid obesity: Experience with 1,000 patients over 7 years. *Obesity Surgery* **14**(3), 407-414.

Coates, J. (1996) *Women Talk: Conversation between Women Friends*. Blackwell: Oxford.

Cochrane, G. (2008) Role for a sense of self-worth in weight loss treatments: Helping people develop self-efficacy. *Canadian Family Physician* **54**, 543-547.

Conceição, E., Mitchell, J.E., Vaz, A.R., Bastos, A.P., Ramalho, S., Siolva C. & Machado, P.P.P. (2014) The presence of maladaptive eating behaviors after bariatric surgery in a cross sectional study: Importance of picking or nibbling on weight regain. *Eating Behaviors* **15**, 558-562.

Elakkary, E., Elhorr, A., Aziz, F , Gazayerli, M.M. & Silva, Y.J. (2006) Do support groups play a role in weight loss after laparoscopic adjustable gastric banding? *Obesity Surgery* **16** (3), 331-334.

Exworthy, M. (2011) The illness narratives of health managers: Developing an analytical framework. *Evidence & Policy* **7**(3), 345–58.

Favretti, F., Segato, G., Ashton, D., Busetto, L., De Luca, M., Mazza, M., … Enzi, G. (2007) Laparoscopic adjustable gastric banding in 1,791 consecutive obese patients: 12-year results. *Obesity Surgery* **17**, 168-175.

Harrison, L. (1996) Distant voices, still lives: Young women, research and (em)power(ment). *In Health Research in Practice: Personal Experiences, Public Issues, Vol. 2* (Colquhoun, D. & Kellehear, A. eds.). London: Chapman Hall, pp. 71–93.

Holloway, I. (2005) *Qualitative Research in Health Care*. Maidenhead: Open University Press.

Holloway, I. & Wheeler, S. (2010) *Qualitative Research in Nursing and Healthcare* (3rd ed.). Chichester: Wiley-Black.

Homer, C.V., Tod, A.M., Thompson, A.R., Allmark, P. & Goyder, E. (2016) Expectations and patients' experiences of obesity prior to bariatric surgery: A qualitative study. *BMJ Open* 6:e009389. doi:10.1136/bmjopen-2015-009389.

Illich, I. (1976) *Medical Nemesis-The Expropriation of Health*. Pantheon Books (Random House), New York.

Illich, I. (2003) Medical Nemesis. *Journal of Epidemiology and Community Health* 57, 919-922.

Kinzl, J.F., Schrattenecker, M., Traweger, C., Mattesich, M., Fiala, M. & Biebl, W. (2006) Psychosocial predictors of weight loss after bariatric surgery. *Obesity Surgery* **16**, 1609–1614.

Kuzel, A.J. (1992) Sampling in qualitative inquiry. In *Doing Qualitative Research* (Crabtree, B.F. & Miller, W.L. eds.). Newbury Park: Sage, pp. 31–44.

Liebl, L., Barnason, S. & Brage-Hudson, D. (2016) Awakening: A qualitative study on maintaining weight loss after bariatric surgery. *Journal of Clinical Nursing* **25**, 951-961.

Lincoln, Y.S. & Guba, E.G. (1985) *Naturalistic Inquiry*. Newbury Park, CA: Sage.

Lincoln, Y.S. & Guba, E.G. (2013) *The Constructivist Credo*. Walnut Creek, CA: Left Coast Press.

Livhits, M., Mercado, C., Yermilov, I., Parikh, J.A., Dutson, E., Mehran, A., Ko, C.Y., Shekelle, P.G. & Gibbons, M.M. (2011) Is social support associated with greater weight loss after Bariatric surgery? A systematic review. *Obesity Reviews* **12** (2), 142-148.

Llewellyn, H., Low, J., Smith, G., Hopkins, K., Burns, A. & Jones, J. (2014) Narratives of continuity among older people with late stage chronic kidney disease who decline dialysis. *Social Science & Medicine* **114,** 49-56.

Markman, K.D., McMullen, M.N. & Elizaga, R.A. (2008) Counterfactual thinking, persistence and performance: A test of the Reflection Model. *Journal of Experimental Social Psychology* **44**, 421-428.

Mathieson, C.M. & Stam, H.J. (1995) Renegotiating identity: Cancer narratives. *Sociology of Health & Illness* **17**(3), 283-306.

Mamplekou, E., Komesidou, V., Bissias, C., Papakonstantinou, A. & Melissas, J. (2005) Psychological condition and quality of life in patients with morbid obesity before and after surgical weight loss. *Obesity Surgery*, **15**(8), 1177-1184.

Miles, M.B., Huberman, A.M. & Saldana, J. (2014) *Qualitative Data Analysis-A methods sourcebook* (3rd edn.) Thousand Oaks: Sage Publications.

Miles, M.B. & Huberman, A.M. (1994). *Qualitative Data Analysis* (2nd edn.). Thousand Oaks: Sage Publications.

Mitchell, M. & Egudo, M. (2003) *Review of Narrative Methodology*. Edinburgh, South Australia: DSTO Systems Sciences Laboratory.

Möller-Leimkühler, A. M. (2002) Barriers to help-seeking by men review of sociocultural and clinical literature with particular reference to depression. *Journal of Affective Disorders* **71** (1-3), 1-9.

Morris, J., Koehn, S., Happell, B., Dwyer, T. & Moxham, L. (2010) Implications of excess weight on mental wellbeing. *Australian Health Review* **34** (3), 368-374.

Muylaert, C.J., Júnior, V.S., Gallo, P.R. & Neto, M.L.R. (2014) Narrative interviews: an important resource in qualitative research Revista da Escola de Enfermagem da USP, REEUSP 48(Esp2),184-189

National Institute for Health and Clinical Excellence (2006) *Obesity: Guidance on the prevention, assessment and management of overweight and obesity in adults and children.* NICE clinical guideline 43. National Institute for Health and Clinical Excellence, London.

National Institute for Health and Clinical Excellence (2016) *Obesity: Clinical assessment and management* (QS127) National Institute for Health and Clinical Excellence, London.

National Obesity Observatory (2010) *Bariatric Surgery for Obesity*. National Obesity Observatory, Solutions for Public Health. http://www.noo.org.uk/uploads/doc/vid_8774_NOO%20Bariatric%20Surgery%20for%20Obesity%20FINAL%20MG%20011210.pdf (accessed 20 February 2017).

Nicolai, A., Ippoliti, C. & Petrelli, M.D. (2002) Laparoscopic adjustable gastric banding: Essential role of psychological support. *Obesity Surgery* **12**, 857-863.

O'Brien, P.E., MacDonald, L., Anderson, M., Brennan, L., Brown, W.A. (2013) Long-term outcomes after bariatric surgery. Fifteen-year follow-up of Adjustable Gastric Banding and a systematic review of the bariatric surgical literature. *Annals of Surgery* **257**, 87-94.

O'Brien, P.E., Dixon, J.B., Laurie, C., Skinner, S., Proietto, J., McNeil, J., … Anderson M. (2006a) Treatment of mild to moderate obesity with laparoscopic adjustable gastric banding or an intensive medical program. A randomised trial. *Annals of Internal Medicine* **144**, 625-633.

O'Brien, P.E, McPhail, T., Chaston, T.B. & Dixon, J.B. (2006b) Systematic review of medium-term weight loss after bariatric operations. *Obesity Surgery* **16**, 1032-1040.

Ogden, J. (2010) *The Psychology of Eating* 2nd ed. West Sussex: Wiley-Blackwell.

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

Pataky, Z., Carrard, I. & Golay, A. (2011) Psychological factors and weight loss in bariatric surgery. *Current Opinion in Gastroenterology* **27**, 167-173.

Pfeil, M., Crozier, K., Pulford, A., Ferguson, Y., Mahon, D. & Lewis, M. (2014) Living with a gastric band: A qualitative study. *Healthcare* **2**, 47-59.

Radcliffe, E., Lowton, K. & Morgan, M. (2013) Co-construction of chronic illness narratives by older stroke survivors and their spouses. *Sociology of Health & Illness* **35**(7), 993-1007.

Riessman, C.K. (1993) *Narrative Analysis*. Sage, Newbury Park, CA.

Rodgers, D.L. & Cowles K.V. (1993) The qualitative research audit trail: A complex collection of documentation. *Research in Nursing & Health* **16** (3), 219-226

Rudolph, A. & Hilbert, A. (2013) Post-operative behavioural management in bariatric surgery: A systematic review and meta-analysis of randomized controlled trials. *Obesity Reviews* **14** (4), 292-302

Ryan, G.W. & Bernard, H.R. (2000) Data management and analysis methods. In *Handbook of Qualitative Research* 2nd edn. (Denzin, N.K & Lincoln, Y.S. eds.). Thousand Oaks: Sage, pp. 769-802.

Sandelowski, M. (1995) Sample size in qualitative research. *Research in Nursing and Health* **15**, 179-183.

Sandelowski, M. (1991) Telling stories: narrative approaches in qualitative research. *Journal of Nursing Scholarship* 23 (3), 161-166.

Scholtz, S., Bidlake, L., Morgan, J., Fiennes, A., El-Etar, A., Lacey, J.H. & MacCluskey, S. (2007) Long-Term outcomes following laparoscopic adjustable gastric banding: Postoperative psychological sequelae predict outcome at 5-year follow-up. *Obesity Surgery* **17**, 1220-1225.

Shenton, A.K. (2004) Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information* **22**, 63-75

Simon, G.E., Von Korff, M., Saunders, K., Miglioretti, D.L., Crane, P.K., van Belle, G. & Kesler, R.C. (2006) Association between obesity and psychiatric disorders in the US adult population. *Archives of General Psychiatry* **63,** 1-7.

Srivastava, P. & Hopwood, N. (2009) A Practical iterative framework for qualitative data analysis. *International Journal of Qualitative Methods* **8** (1), 76-84.

Thomas, C. (2010) Negotiating the contested terrain of narrative methods in illness contexts. *Sociology of Health & Illness* **32**(4), 647-660.

van Hout, G. & van Heck, G. (2009) Bariatric psychology, psychological aspects of weight loss surgery. *Obesity Facts* **2**, 10-15.

Wang, C.C. & Geale, S.K. (2015) The power of story: Narrative inquiry as a methodology in nursing research. *International Journal of Nursing Sciences* **2**, 195-198.

WHO (2016) *Obesity and Overweight* (Factsheet). World Health Organization, Geneva (http://www.who.int/mediacentre/factsheets/fs311/en/ (accessed 16 December 2016).

Wrosch, C., Bauer, L. & Scheier, M.F. (2005) Regret and quality of life across the adult life span: The influence of disengagement and available future goals. *Psychology and Aging* **20**, 657-670.