Journal of
Obesity and Chronic Diseases

https://doi.org/10.17756/jocd.2017-008

Research Article

Open Access

A Qualitative Longitudinal Exploration of the Lived Experience of Laparoscopic Adjustable Gastric Banding Surgery

Sue Jackson[1*], Jude Hancock[2] and Andrew Johnson[2]

[1]*Psychology Department, University of the West of England, Bristol BS16 1QY, UK*
[2]*Department of Diabetes & Endocrinology, Southmead Hospital, Bristol BS10 5NB, UK*

***Correspondence to:**
Dr. Sue Jackson
Psychology Department
University of the West of England
Bristol BS16 1QY, UK
Tel: 07762 482552
E-mail: Susan4.Jackson@uwe.ac.uk
hellosue@suejackson.me.uk

Received: July 04, 2017
Accepted: October 20, 2017
Published: October 24, 2017

Citation: Jackson S, Hancock J, Johnson A. 2017. A Qualitative Longitudinal Exploration of the Lived Experience of Laparoscopic Adjustable Gastric Banding Surgery. *J Obes Chronic Dis* 1(2): 43-55.

Copyright: © 2017 Jackson et al. This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY) (http://creativecommons.org/licenses/by/4.0/) which permits commercial use, including reproduction, adaptation, and distribution of the article provided the original author and source are credited.

Published by United Scientific Group

Abstract

Objectives: In the United Kingdom, laparoscopic adjustable gastric banding (LAGB) surgery is an option for obese individuals who meet the National Institute for Health and Clinical Excellence criteria. Despite the many benefits of LAGB, there is a paucity of literature exploring the long-term impact on individuals. The present study explored how people make sense of the experience of being banded from pre- to five years post-surgery.

Design: A prospective longitudinal qualitative study utilising interpretative phenomenological analysis.

Methods: Semi-structured interviews were undertaken pre-banding, at six months, then annually up to five years post-banding with seven individuals.

Results: Pre-banding participants described the stigma associated with being overweight and unwelcome in society, the need for support, preparations for being banded, and their expectations of successful weight loss with a concomitant return to normality. Post-banding revealed the inadequacy of participants' previous preparation for real life with the band. That, plus some support-related problems, meant at five years post-banding participants still had concerns about whether their eating issues had been addressed, and all were still dependent on the band to control their food intake.

Conclusions: Five years post-banding and changed eating behaviours are still not habitual, the weight loss has not been to the extent originally predicted, and their stated aim (the return to normality with the knowledge of how to manage their weight with the band), remains in the future. Improved preparation and support are clear needs for this patient population to achieve a normal life free from stigma, others' revulsion and pity.

Keywords

Laparoscopic adjustable gastric banding, Qualitative, Interpretative phenomenological analysis, Longitudinal, Obesity-related stigma, Support, Pre-surgery expectations, Post-surgery experiences, Normality

List of Abbreviations

LAGB: Laparoscopic Adjustable Gastric Band(ing); WHO: World Health Organisation; UK: United Kingdom; NICE: National Institute for Health & Clinical Excellence; BMI: Body Mass Index; IPA: Interpretative Phenomenological Analysis; NHS: National Health Service; GP: General Practitioner; BST: Bariatric Specialist Team

Introduction

Obesity has been classified by the World Health Organisation [WHO] as a 'wicked health challenge' due to behaviours associated with obesity being complex and multidimensional [1]. Data for the United Kingdom [UK] indicates that since the 1980's obesity prevalence has risen threefold, making it one of the most obese nations in Europe [2]. There are many health problems associated with obesity including; diabetes, hypertension, cancer, and cardiovascular disease [3]. A reduction in 5-10% of excess body weight can lead to significant reductions in these co-morbidities [4]. Behavioural methods to assist weight loss can have positive effects [5, 6], but often these changes are not sustained long-term [7-9]. Consequently, bariatric surgery may be an option for individuals who have repeatedly failed to lose weight using behavioural methods, and who have co-morbidities due to obesity [10-12].

There are a number of types of bariatric surgery [10, 12-14]. The focus of this paper is on laparoscopic adjustable gastric banding (LAGB), which is a restrictive procedure where by 15 years post-banding, on average, individuals lose 47.1% of their excess weight [15]. This weight loss can often result in remission or improvement in co-morbidities [4, 10, 16]. Individuals may opt for LAGB as the procedure is potentially reversible [17], has lower complication rates compared to bypass surgery [18], and due to the nature of the band, requires regular contact with the medical team [19].

Research exploring LAGB typically uses a cross-sectional approach [20], where only post-surgery experiences are explored [21-23]. Furthermore, the existing literature is primarily quantitative in nature, using validated measures to determine changes such as quality of life [24, 25], eating behaviour [26, 27], improvement in comorbidities [16, 28], and long-term weight loss [10]. Complications following surgery such band slippage, oesophageal dilatation and pouch dilatation have also been explored [29, 30]. Data indicates individuals experiencing nausea and vomiting following LAGB have significantly lower weight loss compared to individuals who do not have this complication [31]. Quantitative studies generally indicate that LAGB has positive impacts on individuals, but highlights this is not the case for every individual undergoing surgery [32]. Whilst this data is useful, the nuances of individual experiences are absent. These may be gathered from qualitative exploration [33-35].

There is a paucity of literature which explores the long term psychological needs of individuals post-surgery. Warholm, Øien, and Råheim argue that "in order to provide patients with realistic expectations for the surgery and a better understanding of the changes after the operation, there is still a need for more knowledge about lived experiences of changing bodies after bariatric surgery through longitudinal designs (p2)" [36]. Of the published longitudinal studies exploring the lived experience of bariatric surgery, none have been specifically concerned with LAGB [36, 37]. Qualitative studies have been conducted exploring the lived experience five years or more post-surgery for individuals having a duodenal switch [38, 39], and with mixed samples that include individuals with a LAGB along with other forms of bariatric surgery (e.g., gastric bypass, sleeve gastrectomy to name but two) to explore experiences between one and 10 years post-surgery [21, 22, 40]. Findings from qualitative studies suggest over time many individuals adjust their relationship with food so it becomes a more practical part of their life rather than a focus [22]. However, individuals who fail to lose weight find this a difficult experience, and believe that they require more support to adjust to life after bariatric surgery in order to adopt and maintain lifelong healthy eating habits [21, 40, 41]. In a study of individuals (n = 11) with LAGB who had unsuccessful weight loss (defined as a Body Mass Index [BMI] ≥ 40 kg/m^2) two years after surgery, Zijlstra, Boeije, Larsen, van Ramshorst and Geenen (2009) demonstrated that the lack of success was linked to a lack of awareness of an individual's own responsibility to change habits following LAGB, believing the LAGB itself would be the key factor in change rather than their own behaviour [42]. These studies give a useful insight into life following bariatric surgery; however, the study designs have meant individuals were interviewed only once following surgery, thus providing a retrospective reflective account of their experiences which may incur potential recall bias [34, 43]. Exploring the lived experience of individuals prospectively allows time factors to be acknowledged, thus putting experiences in context [35, 44, 45]. Phenomenological studies are valuable as they describe the common meaning for several individuals of their lived experiences of a phenomenon, in this case LAGB [33, 46]. As far as the authors are aware, this is the first study to both prospectively, and longitudinally, investigate the lived experiences of individuals undergoing LAGB surgery in England, UK. The aim was to understand how patients make sense of their decision to undergo LAGB, and their experiences of LAGB, in particular in relation to how things may change (or not) over time.

Materials and Methods

Design and participants

All participants fulfilled the National Institute for Health and Clinical Excellence [NICE] criteria for gastric banding BMI ≥ 35.0 kg/m^2 with type 2 diabetes Mellitus or other weight-related co-morbidity, or a BMI ≥ 40.0 kg/m^2) [47]. There were no participants with psychiatric comorbidities as individuals with serious mental health problems, substance abuse and/or signs of suicidal ideation were actively excluded in line with local guidelines. As part of a larger mixed methods study exploring the impact of gastric banding undertaken in a diabetes unit, 50 individuals (of whom six were male) agreed to participate in the qualitative element. Three participants completed interviews at all seven data collection points (pre-surgery, six months post-surgery, then annually up to five years post-surgery), and a further four at six time points. Interpretative phenomenological analysis [IPA] was undertaken on the 45 transcripts arising from the interviews with these seven study participants.

IPA studies require a homogenous sample [35, 48]. At baseline, the Caucasian sample of seven participants (of whom five were female) ranged in age from 39 – 58 years

(mean age = 46.6, SD = 5.7). Six of the group were working, six had comorbidities (e.g., diabetes and/or high blood pressure). All of the participants underwent LAGB as that was the only surgical option offered in the regional specialist centre in 2007 when the study commenced. Table 1 shows demographic information on those whose data was used in the IPA analysis versus those not included. Post-operatively participants could see the dietician as required. Where considered appropriate, for example, in the case of serious mood disruption or significant problems in coping, individuals had the support of a specialist clinical psychologist. Changes in weight from pre- to five years post-banding for both groups are shown in Table 2 and illustrated in Figure 1, where it is clear that both groups had very similar weight loss.

Table 1. IPA and non-IPA sample baseline (pre-surgery) demographic data.

Demographic		IPA sample (n = 7)	Non-IPA sample (n = 43)
Gender	Male	2 (28.6%)	4 (9.3%)
	Female	5 (71.4%)	39 (90.7%)
Age	Mean + SD	46.57 ± 5.74	42.37 ± 8.92
	Range	39 – 58 years	25 – 69 years
Ethnicity	White	7 (100%)	42 (97.7%)
	Non-White	0 (0%)	1 (2.3%)
Employment status	Working	6 (85.7%)	29 (67.4%)
	Not working	1 (14.3%)	14 (32.6%)
Comorbidity	Diabetes	5 (71.4%)	25 (58.1%)
	Other e.g., high blood pressure, high cholesterol	6 (85.7%)	34 (79.1%)
	None	1 (14.3%)	9 (20.9%)

45]. Interview schedules are provided in Table 3.

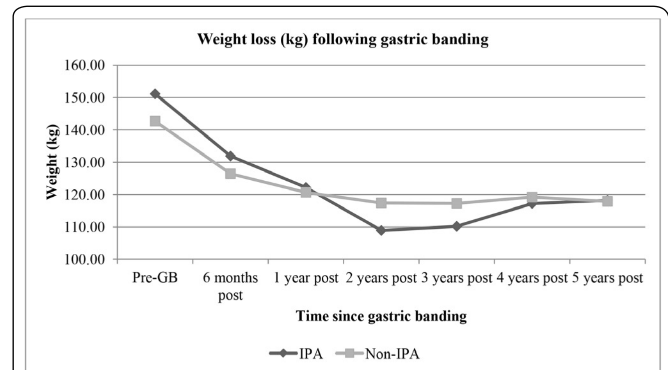

Figure 1: Weight changes (kg) in sample pre- to five years post-banding.

Ethical approval was obtained from the National Health Service (NHS) Trust Research Ethics Committee prior to data collection commencing. Informed consent was obtained from all individual participants included in the study. The interviews were generally carried out in a room within the weight loss clinic, as these visits coincided with participants' routine clinic appointments. Each interview was recorded and transcribed [34, 35]. Pseudonyms have been assigned to each participant to ensure anonymity.

Data analysis

IPA methods were applied to the transcripts [35]. The transcript for each participant at every time point was analysed separately. All transcripts were primarily analysed by JH (second author) who had transcribed, but not undertaken any of the interviews. Each transcript was read several times, firstly to describe the content of each transcript, then to note the linguistic features and potential meanings. Secondary confirmatory analysis to verify themes was undertaken by SJ (first author) who had interviewed participants. Conceptual features of the transcripts were agreed in discussions between JH and SJ. Descriptive themes were generated for each transcript and these were compared across individuals for each time point. Finally, themes were compared across all time points which resulted in the generation of super-ordinate themes.

Table 2. Weight changes (kg) in sample pre- to five years post-banding.

	IPA sample (n = 7)				non-IPA sample (n = 43)				
	Mean	**SD**	**Range**	**%EBWL**	**Mean**	**SD**	**Range**	**%EBWL**	***d*** **(weight)**
Pre-banding	151.13	12.20	126.40 – 164.30	-----	143.11	26.13	108.00 – 260.00	-----	0.39
6 months post-banding	131.90	11.87	113.30 – 146.50	24.48	127.36	21.91	88.10 – 194.60	20.40	0.26
1 year post-banding	122.19	10.26	112.90 – 139.70	35.58	121.44	23.86	72.50 – 196.10	29.06	0.04
2 years post-banding	108.91	14.45	95.90 – 132.90	51.31	118.53	24.67	68.40 – 196.10	33.16	0.48
3 years post-banding	110.19	10.98	96.90 – 130.60	50.30	118.41	23.73	67.50 – 189.40	31.93	0.44
4 years post-banding	117.21	13.13	95.20 – 132.40	40.57	119.99	24.27	70.20 – 189.40	30.24	0.14
5 years post-banding	118.23	11.87	96.50 – 130.30	39.38	120.27	26.56	70.20 – 189.40	30.01	0.10

Notes: %EBWL = Percentage Excess Body Weight Lost.; d (weight) = Cohen's d calculation of effect size, where .2 = small, .5 = medium, .8 = large

Procedure

Interview schedules were developed based on the existing literature and conversations with the lead clinician [21]. The schedule encouraged participants to reflect on their individual experiences with LAGB [34, 35, 49]. As the study progressed, interview schedules were amended in order to explore common issues that had arisen in earlier interviews [34, 35,

Results

Due to the longitudinal nature of the data, two distinct phases informed the super-ordinate themes: (1) Wanting a gastric band, which relates to the pre-banding data; and (2)

Table 3. Interview schedules from pre-banding to 5 years post-banding.

Pre-banding
1. How would you describe yourself now? 2. How do you think you have got to this point? **Prompt:** How did you come to this decision to have the gastric band surgery? 3. How much control do you feel you had re the decision for surgery? 4. What is your understanding of the procedure of laparoscopic gastric banding surgery? 5. What are your expectations of the surgery? **Prompt**: What do you think will change as a result of the surgery? **Prompt**: How will the change(s) affect you? 6. How do you think surgery will affect your diabetes? 7. In the past what other methods have you tried to reduce your weight? 8. What support do you have from family and friends? **Prompt:** What do they think about your surgery?
6 months post-banding
1. Can you tell me about your experiences of surgery? 2. What has been your experience of the filling and adjusting of the band? 3. How much control do you feel you have over what is happening to you? 4. What positive changes have occurred since the surgery? 5. What negative changes have occurred since the surgery? **Prompt**: What negative effects of the surgery have you experienced? 6. How easy has it been to adjust to the way you eat since surgery? 7. How has the surgery affected the management of your diabetes? 8. How have you felt about the changes you have experienced? 9. How do you see yourself now? 10. If you knew then what you know now, would you still have had gastric banding surgery? **Prompt:** What would have been helpful to know before surgery that you didn't know? 11. How has the surgery and its effects, affected your family and friends? **Prompt:** has your support from them changed in any way? 12. Reflecting back on your journey so far, what advice would you give to someone in the same position as yourself?
12 months post-banding
1. What has been your experience of the filling and adjusting of the band? 2. We last saw you six months after your surgery. What positive changes have occurred between then and now? 3. What negative changes have occurred in that time? **Prompt**: effects of the surgery: 4. How much control do you feel you have had over what is happening to you? 5. How easy has it been to adjust to the way you eat since the surgery and after fills? 6. How has the management of your diabetes been affected over the past 12 months? 7. How have you felt about the changes you have experienced? 8. How do you see yourself now? **Prompt:** Can you describe your journey over the last 12 months? 9. How has the surgery and its effects, affected your family and friends? **Prompt:** has your support from them changed in any way? 10. If you knew then what you know now, would you still have had the gastric banding surgery? **Prompt**: What would have been helpful to know before surgery that you didn't know? **Prompt:** Would you do it again? 11. Reflecting back on your journey so far, what advice would you give to someone in the same position as yourself? 12. If we were to offer an intervention to support you through the process (from decision to have surgery, the surgery and dealing with the impact of the surgery) what type of support intervention do you think would be useful? **Prompt:** psychological support, education and information, support group/network
24 months post-banding
13. We last saw you 12 months how has life been with the band? **Prompts:** Fills and weight loss, positive changes, negative aspects of living with the band 14. Since we last met how easy has it been to adjust your eating? How has this been affected by the band fills? 15. What has it taken for you to change your eating behaviour? **Prompts:** What do you think has helped in the short term and what help do you need for the long term? 16. What would it take for you to achieve your target? **Prompt:** What do you need to do and how might others help? 17. How much control do you feel you have with the band regards your eating and your life? 18. How has the band affected your relationship with food? **Prompt**: Pre band was food used to cope with life? **If yes**: How do you cope with life events without food? 19. How do you feel about the changes you have experienced? 20. How would you describe yourself now? **Prompt**: Do you feel you have changed since the band? If yes, how? 21. How has life with the band, affected your relationships with other people? Example partner, family and friends? **Prompt**: Since the last interview has their support changed in any way? 22. **ONLY if they are diabetic**: How has the management of your diabetes been affected over the past 12 months? **If NON diabetic**: how has your health changed since the band was fitted? 23. If you knew then what you know now, would you still have had the band fitted? **Prompt:** Would you do it again? 24. Reflecting back on your journey so far, what advice would you give to someone considering banding? 25. If we were to offer an intervention to support you through the process (support in making the decision to have the band, support through the surgery & support in dealing with life with the band); what do you think would be most useful? **Prompt**: psychological support, education and information, support group, support network, one-to-one
36 and 48 months post-banding
1. Since we last saw you, 12 months ago, how has life been with the band in the meantime? **Prompts:** Fills and weight loss, positive changes, negative aspects of living with the band? 2. Since we last met how easy has it been to adjust your eating? How has this been affected by the band fills? 3. How has the band affected your relationship with food? **Prompts**: Pre-band was food used to cope with life? **If yes**: How do you cope with life events without food? 4. What has enabled you to change your eating behaviour? **Prompts:** What do you think has helped in the short term and what help do you need for the long term? 5. At 3 years post-banding and in terms of living with the band and managing your weight how satisfied are you with your progress? 6. What would it take for you to achieve your target? **Prompt:** What do you need to do and how might others help? 7. How much control do you feel you have with the band regards your eating and your life? 8. Have any of the changes imposed by the band, become habit yet, or are you still having to think and plan what you're going to do and eat? 9. How do you feel about the changes you have experienced? 10. How would you describe yourself now? **Prompt**: How do you feel you have changed since the band/in the last 12 months? If yes, how? 11. How has life with the band, affected your relationships with other people? Example partner, family and friends? **Prompt**: Since the last interview has their support changed in any way? 12. **ONLY if they are diabetic**: How has the management of your diabetes been affected over the past 12 months? **If NON diabetic**: how has your health changed since the band was fitted? 13. Reflecting back on your journey so far, what advice would you give to someone considering banding? 14. If we were to offer an intervention to support you through the process a. (support in making the decision to have the band, b. support through the surgery & c. support in dealing with life with the band); what do you think would be most useful? **Prompts**: psychological support, education and information, support group/network/one to one

60 months post-banding

1. How has your life changed in this time?
   a. If there was a turning point, a light bulb moment can you describe when this happened?
   b. Is there anything that particularly stands out for you (good & bad)? If so, what and why?
2. Has it been the way you expected it to be?
3. How would you describe yourself…
   a. Back at the start of this process?
   b. Now?
4. How have you changed (physically, emotionally, confidence/esteem)?
   a.Was this a sudden change or something which happened over time?
   b.How do you feel about the changes you have experienced?
   c. How has your health changed?
   d. What do you think has helped you to make these changes?
5. **ONLY if they are/were diabetic**: How has the management of your diabetes/health condition been affected in the past 5 years
6. Can you describe how the band has affected your relationship with food?
   a.Again was this a sudden change or more gradual?
   b.How did this affect you?
   c .Have any of the changes imposed by the band become habit yet, or are you still having to think and plan what you're going to do and eat?
7. How satisfied are you with your progress with your weight management on a scale from 1-10 (where 1 = very dissatisfied and 10 = very satisfied)?
   a.(Say the participant answers 5) Why is it a 5 and not a 6?
   b.Why are you giving yourself a 5 and not a 4?
8. Would you describe yourself as being successful in relation to the goals you set yourself in relation to your weight management?
   a. If so, in what ways would you say you are successful?
   b. How have you done it?
   c. If no, how would you describe your relationship with your weight?
   d. What things are you struggling with?
9 .How much control do you now feel you have with the band regards your eating and your life?
10. How has living with the band, affected your relationships with other people? (eg partner, family, friends, work colleagues, GP, other HCPs)
11. Reflecting back on your journey so far, what ***one piece*** of advice would you offer to a patient earlier in their journey?
12. You have been involved with the team for 5 years at least and this is the final interview, how does this feel?
13. Looking forward from here: what long term goals do you have?
    a. What would it take for you to achieve these?
    b. How might others help?
14. Is there anything else that you think we need to know that we haven't touched on, or anything that you would particularly like to add?

Note: The same interview schedule was used at both 36 and 48 months post-banding.

Life with a gastric band, encompassing the six month to five year post-banding data. Embedded within each super-ordinate theme are three sub-themes. Topics within the themes were deemed salient if two or more of the participants at each time point raised the issue. To keep results succinct, quotes from participants to illustrate sub-themes are shown in Table 4 (pre-banding) and Table 5 (post-banding), and identified in the text as Q*n*.

Wanting a gastric band

This super-ordinate theme addresses the reasons behind wanting a LAGB and perceptions of future life following surgery. All participants talked about previous attempts to lose weight by various means; commonly described as a cyclical experience typified by short-term achievements of weight loss followed by regaining this weight plus 'a little bit more'. Previous limited success in losing weight had, in part, prompted their decision to seek LAGB. All participants were very grateful to be able to be banded on the NHS and this seemed to inform their basic attitude towards being banded; this was an opportunity to be taken seriously and not wasted. Three sub-themes emerged during analysis: (1) Being overweight, (2) The banding support network, and (3) The gastric band.

Being overweight

All participants had a strong feeling things needed to change, this could arise from health concerns (comorbidities included diabetes, high blood pressure, and cholesterol), weight-related stigma, and physical discomfort. All participants were concerned about the possibility of their health deteriorating if they did not address their weight issues.

All participants were able to identify various ways in which both the environment and society in general served to make them feel unwelcome, out of place, and the subject of unwanted attention, the consequence of which was a restricted life. For example, Millie described how public seating is generally not designed for larger people, as a result she felt 'embarrassed' about her size and only willing to go to familiar places where she knew the seating would accommodate her. Judgements and the associated subsequent avoidance of the place/situation are further illustrated by Rosetta's experiences of high street clothes shopping (Q1), while Vincent lists perceived pejorative societal attitudes (Q2). However, in all cases participants have outgrown the available seating, clothes etc., but they seem to interpret the lack of provision of suitable alternatives as a form of hostility towards them, which arguably feeds their perception of being unwelcome in society. Similarly, participants do not describe any examples of people (for example, strangers they come across in their daily lives) as making any actual remarks between themselves, or directly to them about their [the participants'] size; participants seem to be interpreting non-verbal body language as it relates to their feelings of being unwelcome in society.

Participants were aware of the need to exercise as part of a healthy lifestyle, and several were aware their sedentary jobs (office workers and drivers) were a contributory factor to their weight gain and lack of activity. Millie dealt with this by employing a personal trainer to help her exercise regularly, while Alice described herself as being fairly fit for someone so overweight, especially when she was making comparisons of herself with other people of a similar size. For the rest, finding activities they enjoyed and were physically able to do was challenging. Being so significantly overweight meant difficulties with mobility; as Rosetta noted, legs that feel 'as though they've got sandbags strapped to them' makes walking even short distances very difficult. With one exception, participants generally seemed to be helpless in relation to being able to exercise in the face of their obesity, even when they have the knowledge of what to do, as in the case of Vincent (an ex-fitness instructor) (Q3).

The banding support network

All the study participants had needed to do extensive

Table 4. Super-ordinate theme "*Wanting a gastric band*": sub-themes and quotes relating to participants' pre-banding experiences.

Qn	Sub-theme 1: *Being overweight*
Q1	"I don't go in those shops because well, when I have gone in there, the looks I've had from these young girls, these young, it's like, Christ, what's she doing in here." (Rosetta)
Q2	"People in society my size are seen as lazy, stupid, all sort of things" (Vincent)
Q3	"You give me someone and I can train them and I can make them fit, can't do it for me" (Vincent)
	Sub-theme 2: *The banding support network*
Q4	"it's mad to undergo surgery when you're healthy" (Alice)
Q5	"I've told a few people here, like people who need to know like my boss and my closer friends at work um, not everybody in my family knows, we just told my mother-in-law last week, and it's because she's a worrier and I didn't want, to be honest I didn't want the hassle you know." (Rosetta)
	Sub-theme 3: *The gastric band*
Q6	"There's only so much loose skin I can cram inside a pair of Bridget Jones knickers" (Rosetta).
Q7	"I was talking to my doctor about skin afterwards because if I go to the gym, you can tone up your muscle, but obviously the skin is a real issue and it'll be a bit of a bugger to get slim and then, you know, there's only so much you can tuck in knickers, isn't there" (Mary-Ann)
Q8	"Not being able to walk over to X and you know, pretend I don't mind going and having a cup of tea and reading my book for an hour or so, while they do it, because I can't" (Mary-Ann)
Q9	"Like when you go to a restaurant and you see a small gap between the tables and you think am I going to fit through that, which a slimmer person wouldn't even, wouldn't even contemplate or just these tables where they've got fixed benches and the tables and you think hum am I gonna squeeze in there, so I'm hoping things like that will obviously go out of my mind once I've lost some weight, and I can be a normal slim person again." (Alice).

research in order to be comfortable with their decision to undergo LAGB. Accounts demonstrated a need for information prior to surgery to ensure that they, and their families, felt fully informed of both the risks of surgery and future life with a gastric band. A range of individuals with whom they had spoken to about LAGB was mentioned including; general practitioner [GP], diabetic nurse, bariatric specialist team [BST], family, work colleagues and friends, and others considering, or already living with, a gastric band. For Alice, contact with the BST had benefitted both her and her husband. She believed the contact had given them 'more information and rather than just reading bits off the internet,' indicating the value of professional support. Rosetta similarly found contact with the BST enabled her to explore possible side effects of banding, such as loose skin.

Being banded was described as a 'selfish' act which is open to being misunderstood, as noted by Alice (Q4). Many participants were "givers", i.e. supportive of others, rather than "takers", and so found themselves in an unusual position. There was clear recognition that this (LAGB) was something that they wanted for themselves, and disclosure and support-seeking pre-banding was limited to those who could be trusted to be appropriately supportive, i.e. OK with, or keen for, the participant to undergo surgery. Difficult relationships with family members tended to ensure that the participant would not be either telling them about the surgery or looking to them for support. A perceived lack of potential support was a reason for disclosing on a 'need to know' basis, as explained by Rosetta (Q5).

The gastric band

The impact of having a gastric band was considered in all the accounts, particularly in relation to how it would help participants become 'normal'. Changes following LAGB were anticipated, with, unsurprisingly, a major focus on food, and more limited attention to bodily changes, particularly the potential negative experiences such as excess skin and how this might be managed (Q6 & Q7).

The food-related pre-banding preparation largely focussed on preparing for a new eating regime following the operation. Millie talked about her changing her 'outlook on food,' considering what she is currently eating, and what she is likely to eat following LAGB. Similarly, Alice was considering how she was going to 'deal with eating after the operation', particularly in relation to favourite foods (such as bread and cheese).

The process of becoming normal was clearly a complicated issue. Being normal seemed to mean being able to do the same things as other people, at the same time and in the same way, and dropping the pretence that you're OK watching, or waiting (Q8). This is particularly salient in relation to engaging with the environment, already identified as a source of disquiet (Q9). However, the anticipated enforced food changes due to banding was a factor participants believed would be noticeable to others when socialising post-LAGB, making them different from others and the subject of possible questions and remarks, such attention being something they were keen to avoid. So, while their reduction in size would mean that they could interact "normally" with the environment, there were concerns that no longer being able to eat normally would be difficult to deal with.

Life with a gastric band

This super-ordinate theme explores the changes and challenges participants experienced post-operatively with

Table 5. Super-ordinate theme "*Life with a gastric band*": sub-themes and quotes relating to participants' post-banding experiences.

Qn	Sub-theme 1: *The gastric band*
Q10	"I think I thought it was going to be much more a simpler solution than it is" (Mary Ann, 5 years post-banding)
Q11	"I can eat something one day, and not the other, or something won't stay down tonight and, blooming dress, um, and then I can either go back later on, and eat it, and it'll stay down, or, you know, it's, it's just different, every day is different, depending on my state of mind I think it is, if it's not my state of mind then god knows what it is, coz, coz I, I don't know." (Rosetta, 5 years post-banding)
Q12	"Until I had my first fill at six weeks after the operation I could eat more or less the same as I could before and I thought, "well, this isn't any good, how is this going to work?" and then I came in and had my first fill which was two mils and that made a difference, that made one hell of a difference and then um I started losing weight." (Rosetta, 1 year post-GB).
Q13	"So consequently not giving a monkeys anymore I started eating normally like I shouldn't, and put on" (Vincent, 48 months post-banding)
Q14	"It hasn't worked properly since" (emptied and then re-filled). (Ethyl, 36 months post-banding)
Q15	"Because the negative side still hasn't changed." (Steven, 24 months post-banding)
Q16	"Yeah I mean it's food addicts it's the equivalent of somebody sticking a needle in their arm." (Vincent, 12 months post-banding)
Q17	"I think what the band has done for me more so than anything is, is told me psychologically, you wouldn't be able to eat it even if you want it." (Steven, 6 months post-banding)
	Sub-theme 2: *The support network (or not)*
Q18	"A bit more information really, like you know, if they think, they could give you a booklet of something that's, says, a bit like you get when you go to slimming world, and it says all you know, this is you know, eat this or don't eat this, whereas they just gave you like, I think it was an A5 sheet of what to avoid and what you can eat, well that's not enough, I, I think you need more, I think if you could have a booklet with food to avoid, and food to you know that, try this, or you know, that sort of thing really (Millie, 1 year post-GB).
Q19	"I don't think you could do anything like this without any support from your friends and family" (Vincent, 24 months post-banding)
Q20	"I know there is a group but it is not very good that, no they are cliquey." (Ethyl, 48 months post-banding)
Q21	"This is the bit that I just cannot get my head around, I know all what the problems are, every time I do something wrong I know I'm doing wrong, and yet I still go ahead and do it and I'll feel guilty." (Vincent, 48 months post-banding)
Q22	"We went to my mother-in-law's the weekend, have a cooked lunch as you do and they still pile it up on your plate, and I'm like 'I can't eat this, sorry' sort of thing." (Steven, 12 months post-banding)
Q23	"I'm feeling a bit guilty that I'm actually putting myself first for once." (Stephen, 24 months post-banding)
Q24	"The support wasn't huge, I, and I think if I hadn't been in this band study, I think it would have been even less, I think." (Millie, 5 years post-banding)
	Sub-theme 3: *Metamorphosis*
Q25	"I think before I had my band fitted I was so in such a mess with food and I didn't, I just, food was my life I woke up on a morning and I thought about food and I just continued that throughout the day and I didn't learn to recognise my body." (Millie, 2 years post-GB)
Q26	"That sums it up really, I am comfortable in who I am now" (Ethyl, 48 months post-banding)
Q27	"I don't think I am where the consultant said I would be, cause when I went to see the consultant he said I would lose half my body weight in two, in two years, well, I've not lost nowhere near half my body weight in five years so, um, I'm not there, but I do, I, I feel positive, I'm positive that, I will, I will continue to lose weight, I mean the whole five years that I've had my band, I've only ever put on, one pound." (Millie, 5 year post-banding).
Q28	"I should be a lot further progressed with the band, but I am not." (Vincent, 60 months post-banding)
Q29	"I used to live to eat, but now I eat to live" (Ethyl, 12 months post-banding)
Q30	"It's quite shocking you know, to realise that, I still have not got that control with food" (Mary Ann, 36 months post-banding)
Q31	"The problems always gonna be me, in my head, same with anyone who has a band, it's, it's the head is the problem, every time" (Vincent, 60 months post-banding)
Q32	"I've opened up opportunities that I wasn't able to do then that I certainly can do now." (Steven, 60 months post-banding)
Q33	"I find it difficult to, to buy clothes that are smaller sizes because I am worried they are not going to fit me but in actual fact they will." (Millie, 3 years post-banding)
Q34	"I used to get out of bed, put my feet on the carpet and I'd look down and I'd think God, they look like old chicken legs, getting all sort of thin and my veins are horrendous, you know, they look all sort of knobbly." (Rosetta, 1 year post-GB)
Q35	"I'm thinking about you know, getting the fat cut off, well not the fat the skin" (Vincent, 60 months post-banding)
Q36	"Still a reminder of what was, um, and whilst those flabby bits are still there, it's like well, you know, um, leave 'em there" (Steven, 60 months post-banding)
Q37	"I feel like I eat what perhaps a normal, I say normal but, a person would eat" (Mary-Ann, 60 months post-banding)
Q38	"Whatever the norm is, I've started to become it" (Steven, 60 months post-banding)

a band. There were no differences in the issues raised by participants at the various time points, just a shift in emphasis for each. Despite pre-operative preparations, it became clear that participants were not adequately prepared for post-operative life with the band. That, plus some problems with support, meant that while changes were seen in relation to eating behaviour, at five years post-banding participants still had concerns about whether their real eating issues had been

addressed, and all were still dependent on the band. Three sub-themes emerged during analysis: (1) The gastric band; (2) The support network (or not); and (3) Metamorphosis.

The gastric band

This sub-theme contained experiences of the gastric band itself, such as band management, the filling of the band to aid weight loss, and deflation to minimise risks to the oesophagus.

Pre-banding, preparation for LAGB had been important to the participants, however, it soon became apparent that they were not adequately prepared for life with the band (Q10). If being banded is a big life event similar to a wedding or the birth of a baby, then pre-banding the focus was on "the big day" (where the surgery equates to the wedding day or the day of the birth) and the immediate aftermath, rather than the practicalities of a lifetime of different eating. So analogous to entering a long-term relationship, or bringing a child to reach adulthood. The relationship with the band was clearly complicated, as an example, the food the band would tolerate varied throughout the years following banding and participants struggled to find foods which would consistently get past the band (Q11).

For the band to be perceived as effective, it had to be experienced as being suitably restrictive (Q12). However, this could lead to problems such as food 'getting stuck' as a result of food not being chewed sufficiently to pass through the band, or sickness from trying to eat too quickly. Other problems included excess saliva production (a significant problem for Alice in the first six months post-LAGB, although this resolved by itself as time passed). Band restriction coupled with over-eating can lead to oesophageal stretching, requiring the band to be deflated to allow the oesophagus to 'rest'. However, such band deflations could be associated with a number of problems, for example, at 12 months post-banding Rosetta found she could only drink fluids, but the removal of fluid from the band left her feeling 'hungry', a sensation she had not experienced up until this point following banding, and which she found tough to deal with. Band deflation was also associated with unwelcome significant weight gain due to the reduced restriction and the opportunity to resume pre-banding earlier eating behaviours (Q13). Subsequent band refilling did not necessarily mean a return to an identical restrictive state, which could lead to a feeling that the band was no longer working in the same way, and leading to further complications in the relationship with the band (Q14).

Participants recognised that there was a big psychological component in being banded (Q15); in particular Millie believed that although the band was given to help with limiting food intake, the reasons behind overeating were not explored and addressed, while Vincent likened his eating problems to a drug addiction (Q16). The tension between the ongoing relationship with food and the new relationship with the band can be seen in some of the choices that participants made in relation to band management. Although band fills and deflations were in part determined by advice from the specialist team, being able to choose when to have a fill, or to have fluid removed, was important as this allowed participants to 'balance it (LAGB) with having a life', where having a life was clearly equated with eating. While the band might be described as a 'tool', it could be more accurately characterised as a partner with the power to force participants to recognise their behaviour (Q17).

The support network (or not)

All participants identified support as being important in terms of reassurance, problem-solving, and accountability. Millie was very clear that what was provided by the NHS was not enough (Q18). As in the pre-banding accounts, participants spoke of receiving support from a variety of sources over the years, including; spouse, children, work colleagues, online forums, their GP, others living with a LAGB, friends, and the BST. Vincent noted the particular importance of friends and family in the process (Q19). While Alice found the banding support group useful as it gave her a forum to talk to others 'in the same boat', however, Ethyl struggled with the group dynamics and subsequently chose not to attend (Q20). Although participants talked of having several avenues of support, there was also a general feeling that more support could, or should, be available. Millie felt that as time since banding increased the specialist support was lacking with appointments reducing to annual visits, this was a problem making it easier to 'disappear in the cracks' and not be accountable for self-management and weight loss.

Being banded is far from straightforward, it is a major physical and mental challenge that in part requires individuals to learn how to reflect on what is happening, draw appropriate conclusions, operationalise and implement the necessary changes, and to persevere over an extended period of time (Q21). The participants are expected to work with the band, making the necessary physical and mental changes, in their usual environment. There was no mention of participants being provided with any information by the BST on how to manage such challenges. Alice's cogitations about her situation are a good case in point; she struggles to understand how she is failing to lose weight, but without a mentor to hold up a mirror to her (so that she can see that the way she herself thinks about things is part of the problem) she continued to struggle.

While the majority of NHS staff were described in glowing terms, there were many examples in participants' accounts of difficulties in accessing support, and indeed examples of how healthcare professionals can be unhelpful, for example, finger-wagging and making unhelpful accusations of cheating, rather than helping with the necessary problem-solving and learning that needed to take place. Similarly, not all friends and family could be counted on to be appropriately supportive and helpful. For example, Alice felt at times her husband was 'sabotaging' her attempts to lose weight; for example, she no longer purchased biscuits in the weekly shop, yet her husband was still buying them, bringing them home, and she felt, putting temptation in her way. Additionally, over time friends may forget what is entailed in being banded and start offering inappropriate food, or appropriate food but in over-sized portions (Q22).

Many participants struggle in putting themselves first

(Q23); their success in part can be very much dependent on how successful their family members are in dealing with their issues on their own. Once family members need participants' time and attention, finding the time to do what is necessary in terms of eating and exercise can go onto the 'back burner' making success (in terms of weight loss) much harder to achieve. That it is important is acknowledged by Millie in her account of being taught (by a therapist she found and paid for herself) how to "hand issues back to other people" - an important part for her of learning how to cope with the band. Taking part in the research was seen as an additional source of support giving participants an opportunity to reflect and discuss their journey (Q24).

Metamorphosis

There was evidence of practical, mental, physical and social changes following banding. Learning to live with band restriction inevitably meant that eating behaviour and food choices had to change. In the early days 'slimier' foods were chosen, as these slipped through the band easily, but a process of trial and error in order to eat a larger variety of foods to address nutritional concerns had to be embarked on by all participants, that prior to LAGB had not been thought about. Participants had expected to have a set diet they could follow with the band, however, in reality, the food they could eat appeared to be related to their emotions (particularly stress) on a particular day. As time since banding increased, participants were increasingly able to control their food intake by recognising sensations such as 'hunger' and 'fullness,' which they had been unaware of prior to banding (Q25).

There was a need to mentally adjust to life with a gastric band which was multi-faceted, continual and challenging. With some weight loss achieved, a positive shift in self-perception post-LAGB was evident (Q26), although participants had generally not lost as much weight as they had been told they would by the BST (Q27), and it was clear that participants felt they had more weight to lose (Q28). With the band participants had shifted from 'living to eat', to 'eating to live', but these changes were dependent on the band remaining in place (Q29 & Q30). Participants still perceived themselves to have problems that needed to be resolved (Q31).

Weight loss was associated with physical changes including health status, however, such changes were not always in the direction that the BST had predicted. For example, one of the female participant's diabetic control deteriorated despite her compliance with the band. Weight loss generally resulted in participants being more confident which was manifested in a willingness to do more physical activities and take up other opportunities as they were no longer fearful of 'being seen in public' (Q32). This had a knock-on effect in terms of social improvement, particularly with family members. There was some evidence of mental adjustment being out of sync with weight change. A case in point was the anxiety associated with shopping in 'high street' stores where there was a lack of belief that the smaller sizes would fit (Q33). And not all the physical changes associated with the weight loss were perceived positively, for example, Rosetta did not appreciate the changes in the appearance of her legs (Q34), and many participants talked of problems with loose skin, which participants either wanted to address with surgery, or to keep as a reminder of their journey (Q35 & Q36).

Pre-banding definitions of normality seemed to be renegotiated in some respects. With the reduction in weight came the much desired ability to join in with things that others do. However, normality seemed to assume extra dimensions post-banding. There was recognition that the reduced number of times of eating during the day coupled with the smaller portion sizes was bringing participants more into line with what normal weight individuals do (Q37). But normality was no longer just about activity, it seemed to have become a synonym for the process of change on which participants' were embarked, and an acknowledgement that their journey in relation to their weight issues was in many respects ongoing (Q38).

Discussion

The aim of this study was to understand how patients make sense of their decision to undergo LAGB, and their experiences of LAGB, in particular in relation to how things may change (or not) over time. Previous limited success with weight loss prompted individuals to seek LAGB along with their largely negative experiences of being overweight. Their aim in seeking surgery was to become normal, i.e. being able to do the same things as other people, but their predicted inability to be able to eat in the same way as other people meant there were pre-surgery concerns about whether this would still mark them as being different from others. Their post-banding experiences tended to suggest that weight loss was indeed associated with being able to join in with others' activities, and their concerns about their eating were unfounded – being banded meant that their eating came more into line with what "normal-sized" people do. It was interesting that there was no real difference in the issues raised by the participants across time, just a shift in emphasis as to which issues were talked about at each time point. This could be a failing of the interview questions employed, or it could serve to illustrate that LAGB is a much longer term process for some individuals. It is after all, a mechanical fix for a behaviour (eating) that has the power to make the recipients become aware of their possibly complex psychological antecedents which may require significant support to resolve.

The pre-banding focus on preparing for surgery and the immediate recovery period is understandable in light of the risks associated with anaesthesia and surgery in significantly obese individuals [50]. However, this focus did not seem to set participants up for the long term challenges involved in living with the band. Heatherton and Nichols (1994) identified and discussed the various issues associated success or failure in relation to change in the face of problem behaviours, including the different aspects that environment, and the people within that environment, can play in the process [51]. Geraci, Brunt and Marihart (2014) in a study with female participants two years post vertical sleeve gastrectomy highlighted the

importance of support particularly of friends and family [52]. Pre-banding, participants were aware that not all their friends, family and acquaintances would be supportive of their choice to be banded, or would help them to lose weight over the long term. Participants therefore made strategic decisions about how to disclose their decisions to. Such disclosure of the decision to undergo LAGB has been shown not to effect the amount of weight lost in the long term [53]. However, some of the healthcare professional's unsupportive behaviour was unexpected and unhelpful. Geraci et al. [52] noted that many kinds of support were needed, but interestingly none of the participants in their study reported receiving help from their surgical team post-operatively, although that is the time when, as the authors note, the hard work really starts. Support has been identified as a possible predictor of weight loss, with Stubbs et al. [54] suggesting that flexible, patient-centred support is vital. However, being a "giver" rather than a "taker" has been identified as a possible problem for people who may need assistance from others to achieve their goals [55]. From the experience of participants in this study it is apparent that regular contact, being held accountable for weight gain, and assistance in problem-solving are key features of support needed for success with the band.

There has been some suggestion that the two year post-operative point is a crucial time in moving from weight loss to weight maintenance, arguably inferring that the changed eating behaviours learned and practised during this period have been sufficient [56, 57]. For these seven participants, new eating behaviours have not become habit by five years post-banding, as evidenced by the reversion to previous eating behaviours and the weight gain associated with band deflations. That the oesophagus gets stretched would also suggest a lack of optimal consumption. Stubbs et al. [54] concluded that weight gain and weight loss involve many factors, some of which are yet to be identified. Supporting individuals in such a situation is difficult, especially if the prevailing assumption is that being banded should be enough to ensure weight loss in chronically obese patients. In such a scenario, healthcare professionals may feel ill-equipped to deal with the various cognitive and psychosocial aspects of weight loss, and revert to the more familiar focus on health status.

In terms of contextualising these results in the wider qualitative literature four named qualitative methodologies have been employed by researchers in the field; Grounded Theory [37, 58], Phenomenological lifeworld analysis [36, 38, 39, 52], Interpretative Phenomenological Analysis [21], and content analysis [22], but in some studies the qualitative methodology employed has not been specifically stated [40, 42, 59]. In qualitative research the methodology employed has a significant impact both on the data collected and the outcome of the analysis making comparisons across studies difficult [33]. Further, LAGB is different to other types of bariatric surgery in at least two key respects, the procedure is considered to be potentially reversible [17] and weight loss is known to be both significantly slower and lower [60]. These factors combined arguably mean that the lived experiences from other qualitative studies reported in the literature where participants have undergone different forms of bariatric surgery may well be significantly different to those reported here.

Our results are reported in two super-ordinate themes; "Wanting a gastric band" relating to the pre-banding period, and "Life with a band" i.e. the post-banding period. These timeframes have been retained for the consideration of our results in the light of the broader literature. Unsurprisingly perhaps, notwithstanding the different methods employed there is a great deal of congruence between the findings reported in the pre-operative period [37, 42, 59]. The theme names generated may be different but the issues noted for the 16 participants interviewed prior to bariatric surgery by Engström & Forsberg cover a lot of the same basic areas outlined in the results reported above [37]. Like the participants in our study, theirs had started to feel overwhelmed in the face of the weight they had gained, and felt unwelcome in society in a variety of ways. Their participants also recognised that they needed to lose weight for health reasons and to improve their quality of life (as did those in Wysoker's, 2005 study), although, as with our participants, theirs experienced mixed degrees of support from the people in their lives [59]. Adaptation to obesity by being with others while they did normal activities as opposed to being able to actually take part was noted in both studies [37, 59]. In terms of differences Engström & Forsberg report more detailed information about the complex relationships that their participants had with food as did Zijlstra et al., and, because healthcare is managed differently in Sweden, their participants considered giving up when they found out how long it would take to receive bariatric surgery [37, 42]. Both Wysoker's and Zijlstra et al. participants not only reported a history of unsuccessful dieting (as indeed did our participants), but the latter study also included more details of being overweight as a younger person and more detailed explanations for weight gain [59, 42].

The post-banding period is more challenging to contextualise due to the range of different time periods and types of bariatric surgery covered in the respective papers: 1 year post biliopancreatic diversity with duodenal switch [36]; 1 year post mixed group undergoing LAGB or gastric sleeve [58]; 1 year post unstated type of bariatric surgery [59]; 2 years post LAGB [42]; 2 years post unstated types of bariatric surgery [37, 52]; 4 years post Roux-en-Y or LAGB [22]; and 5 years post duodenal switch [38, 39]. As specific examples, the themes reported by Natvik et al. and Warholm et al. are very different to our study, focussing as they do on a surgery where patients have undergone rapid weight loss which seems to have been associated with some significant psychosocial challenges not experienced by our study population [36, 38, 39].

That aside, our study results tend to suggest that the same issues may be raised at different time points with only the emphasis on what is important shifting and changing over time. Whether this is a unique feature of life post-LAGB surgery is impossible to say, and in the context of mostly cross-sectional study designs is unlikely to be resolved right now, so for the sake of simplicity, we focus on the whole post-operative period while recognising that these comparisons can only ever be suggestive of possible similarities and differences of experience. As with the pre-banding time point, there are

recognisable points of similarity in the reported post-banding qualitative data. The most significant exceptions, aside from those already mentioned above, are those that focus on the concepts of success or failure [37, 58]. In our study such concepts were not so clear cut, and therefore our data are clearly at odds with these two studies. For the rest, as with the pre-banding data, while some of the reported themes may have been differently labelled, the issues reported by other studies are recognisable in our work, e.g., concerns about weight loss and weight regain [59], interpersonal social support and bariatric peer group support issues [52], experiences of living with the band [42], and changes in eating behaviours [22]. In summary, our data tend to be broadly in support of the findings from other studies.

Strengths and limitations

Out of the 50 study participants who were interviewed, only seven were interviewed regularly across the five years of the study. Anecdotally from the project managers the key difference between these participants and those who were interviewed less regularly was organisational; those interviewed the least tended to either rearrange their clinic visits, or failed to attend. So those interviewed most frequently were those who were arguably most compliant with the research study requirements. Recruiting male participants to qualitative studies is a known problem [61], but their inclusion increases the generalisability of the findings. The repeated interviews in the longitudinal rather than cross-sectional design have helped to highlight key issues associated with adjusting to life with a band that might otherwise have been missed.

The homogeneity required by IPA analysis [35] has meant that the focus has been exclusively on those undergoing LAGB, so the findings may have limited applicability in relation to the issues to be found in relation to other forms of bariatric surgery, specifically those associated with quicker weight loss. Similarly, the study was undertaken within an NHS setting in the South-West of England, UK, and again, patient experiences of banding within other NHS services within the UK may well be different and limit the extent to which the findings, particularly in relation to support, may be experienced by patients. In addition, these findings may not be applicable to other countries with different health care systems.

Conclusions

Five years post-banding, it is clear that these participants are still on their journey. New, improved eating behaviours are still not habit, and they are all still having to think about their eating, particularly when their band is loosened. While all have achieved some degree of weight loss, it has not been to the extent that they originally expected, so their journey's end, the return to normality with the knowledge of how to manage their weight with the band, remains in the future.

For laparoscopic adjustable gastric banding to be truly successful, greater understanding is needed of the nature of the challenge involved for each individual. Better focussed preparation and support needs to be in place to genuinely help people who undergo weight loss surgery to achieve their goal of a normal weight and no longer being an object of curiosity, revulsion or pity.

Conflict of Interest

The authors declare they have no conflict of interest.

Funding

Financial support for the research came from money generated through commercial research studies and a charitable fund.

Ethical Approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Acknowledgements

The authors would like to acknowledge the wider team involved in the data collection for this research; Hilary Holloway, Marianne Morris, Karen Lilly, and Bev Corbett.

References

1. WHO. 2013. Health 2020: A European policy framework and strategy for the 21st century.
2. WHO. 2007. The challenge of obesity in the WHO European region and the strategies for response.
3. Marsh T, Brown M, McPherson K. 2007. Foresight. Tackling obesities: future choices – modelling future trends in obesity & their impact on health (2nd Ed.).
4. Wing RR, Lang W, Wadden TA, Safford M, Knowler WC, et al. 2011. Benefits of modest weight loss in improving cardiovascular risk factors in overweight and obese individuals with type 2 diabetes. *Diabetes Care* 34(7): 1481-1486. https://dx.doi.org/10.2337/dc10-2415
5. Abraham C, Johnson BT. 2011. Editors' introduction to the special issue on health promotion interventions. *Psychol Health* 26(2): 129-132. https://dx.doi.org/10.1080/08870446.2011.531569
6. Johnson BT, Scott-Sheldon LAJ, Carey MP. 2010. Meta-synthesis of health behaviour change meta-analysis. *Am J Public Health* 100(11): 2193-2198. https://dx.doi.org/10.2105/AJPH.2008.155200
7. Barte JCM, Ter Bogt NCW, Bogers RP, Teixeira PJ, Blissmer B, et al. 2010. Maintenance of weight loss after lifestyle interventions for overweight and obesity, a systematic review. *Obes Rev* 11(12): 899-906. https://dx.doi.org/10.1111/j.1467-789X.2010.00740.x
8. Loveman E, Frampton GK, Shepherd J, Picot J, Cooper K, et al. 2011. The clinical effectiveness and cost-effectiveness of long-term weight management schemes for adults: a systematic review. *Health Technol Assess* 15(2): 1-182. https://dx.doi.org/10.3310/hta15020
9. Sniehotta FF, Simpson SA, Greaves CJ. 2014. Weight loss maintenance: an agenda for health psychology. *Br J Health Psychol 19*(3): 459-464. https://dx.doi.org/10.1111/bjhp.12107
10. Colquitt JL, Pickett K, Loveman E, Frampton GK. 2014. Surgery for weight loss in adults. *Cochrane Database Syst Rev* 8(8): CD003641. https://dx. doi.org/10.1002/14651858.CD003641.pub4

11. NICE. 2006. Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children.
12. NICE. 2014. Obesity: identification, assessment and management of overweight and obesity in children, young people and adults.
13. Bates SE, Monkhouse SJW. 2010. Gastric banding and beyond: maximise your weight loss. Authorhouse, Milton Keynes.
14. Kendrick ML, Dakin GF. 2006. Surgical approaches to obesity. *Mayo Clinic Proceedings* 81(10): S18-S24. https://dx.doi.org/10.1016/S0025-6196(11)61177-4
15. O'Brien PE, McDonald L, Anderson M, Brennan L, Brown WA. 2013. Long-term outcomes after bariatric surgery: fifteen-year follow-up of adjustable gastric banding and a systematic review of the bariatric surgical literature. *Ann Surg* 257(1): 87-94. https://dx.doi.org/10.1097/SLA.0b013e31827b6c02
16. Dixon JB, Murphy DK, Segel JE, Finkelstein EA. 2012. Impact of laparoscopic gastric banding on type 2 diabetes. *Obes Rev* 13(1): 57-67. https://doi.org/10.1111/j.1467-789X.2011.00928.x
17. Bult MJF, van Dalen T, Muller AF. 2008. Surgical treatment of obesity. *Eur J Endocrinol* 158(2): 135-145. https://doi.org/10.1530/EJE-07-0145
18. Dixon JB, le Roux CW, Rubino F, Zimmet P. 2012. Bariatric surgery for type 2 diabetes. *The Lancet* 379(9833): 2300-2311. https://doi.org/10.1016/S0140-6736(12)60401-2
19. Singhal R, Kitchen M, Bridgwater S, Super P. 2008. Metabolic outcomes of obese diabetic patients following laparoscopic adjustable gastric banding. *Obes Surg* 18(11): 1400–1405. https://dx.doi.org/10.1007/s11695-008-9500-4
20. Henderson S, Holland J, Thompson R. 2006. Making the long view: perspectives on context from a qualitative longitudinal (QL) study. *Methodological Innovations Online* 1(2): 47-63. https://dx.doi.org/10.4256/mio.2006.0011
21. Ogden J, Avenell S, Ellis G. 2011. Negotiating control: patients' experiences of unsuccessful weight-loss surgery. *Psychol Health* 26(7): 949-964. https://dx.doi.org/10.1080/08870446.2010.514608
22. Ogden J, Clementi C, Aylwin S, Patel A. 2005. Exploring the impact of obesity surgery on patients' health status: a quantitative and qualitative study. *Obes Surg 15*(2): 266-272. https://dx.doi.org/10.1381/0960892053268291
23. Sarwer DB, Fabricatore AN, Jones-Corneille LR, Allison KC, Faulconbridge LN, et al. 2008. Psychological issues following bariatric surgery. *Primary Psychiatry* 15(8): 50-55.
24. Ahroni JH, Montgomery KF, Watkins BM. 2005. Laparoscopic adjustable gastric banding: weight loss, co-morbidities, medication usage and quality of life at one year. *Obes Surg* 15(5): 641-647. https://doi.org/10.1381/0960892053923716
25. Dixon JB, Dixon ME, O'Brien PE. 2001. Quality of life after lap-band placement: influence of time, weight loss, and comorbidities. *Obes Res 9*(11): 713-721. https://doi.org/10.1038/oby.2001.96
26. Colles SL, Dixon JB, O'Brien PE. 2008. Grazing and loss of control related to eating: two high-risk factors following bariatric surgery. *Obesity (Silver Spring)* 16(3): 615-622. https://doi.org/10.1038/oby.2007.101
27. Lang T, Hauser R, Buddeberg C, Klaghofer R. 2002. Impact of gastric banding on eating behavior and weight. *Obes Surg* 12(1): 100-107. https://dx.doi.org/10.1381/096089202321144667
28. Dixon JB, O'Brien PE. 2002. Changes in comorbidities and improvements in quality of life after LAP-BAND placement. *Am J Surg* 184(6): S51-S54. https://dx.doi.org/10.1016/S0002-9610(02)01181-9
29. Busetto L, Segato G, De Marchi F, Foletto M, De Luca M, et al. 2003. Postoperative management of laparoscopic gastric banding. *Obes Surg* 13(1): 121-127. https://doi.org/10.1381/096089203321136719
30. Lanthaler M, Aigner F, Kinzl J, Sieb M, Cakar-Beck F, et al. 2009. Long-term results and complications following adjustable gastric banding. *Obes Surg* 20(8): 1078-1085. https://dx.doi.org/10.1007/s11695-010-0190-3
31. Folope V, Hellot MF, Kuhn JM, Teniere P, Scotte M, et al. 2008. Weight loss and quality of life after bariatric surgery: a study of 200 patients after vertical gastroplasty or adjustable gastric banding. *Eur J Clin Nutr 62*(8): 1022-1030. https://dx.doi.org/10.1038/sj.ejcn.1602808
32. Picot J, Jones J, Colquitt JL, Gospodarevskaya E, Loveman E, et al. 2009. The clinical effectiveness and cost-effectiveness of bariatric (weight loss) surgery for obesity: a systematic review and economic evaluation. *Health Technol Assess* 13(41): 1-190. https://dx.doi.org/10.3310/hta13410
33. Cresswell JW. 2013. Qualitative inquiry & research design: choosing among five approaches (3rd ed.). SAGE, London, UK.
34. Gribch C. 1999. Qualitative research in health. SAGE, London, UK.
35. Smith JA, Flowers P, Larkin M. 2009. Interpretative phenomenological analysis: theory, method and research. SAGE, London, UK.
36. Warholm C, Øien AM, Råheim M. 2014. The ambivalence of losing weight after bariatric surgery. *Int J Qual Stud Health Well-being* 9: 22876. https://dx.doi.org/10.3402/qhw.v9.22876
37. Engström M, Forsberg A. 2011. Wishing for deburdening through a sustainable control after bariatric surgery. *Int J Qual Stud Health Well-being 6*(1). https://dx.doi.org/10.3402/qhw.v6i1.5901
38. Natvik E, Gjengedal E, Råheim M. 2013. Totally changed, yet still the same patients' lived experiences 5 years beyond bariatric surgery. *Qual Health Res* 23(9): 1202-1214. https://dx.doi.org/10.1177/1049732313501888
39. Natvik E, Gjengedal E, Moltu C, Råheim M. 2014. Re-embodying eating: patients' experiences 5 years after bariatric surgery. *Qual Health Res* 24(12): 1700-1710. https://dx.doi.org/10.1177/1049732314548687
40. Geraci AA, Brunt AR, Hill BD. 2015. The pain of regain: psychosocial impacts of weight regain among long-term bariatric patients. *Bariatr Surg Pract Patient Care* 10(3): 110-118. https://dx.doi.org/10.1089/bari.2015.0011
41. Hancock J, Jackson S, Johnson AB. 2017. Benefits of long-term digital support following bariatric surgery incorporating views from a patient advisory group. *Obes Surg* 27(7): 1884-1885. https://dx.doi.org/10.1007/s11695-017-2723-5
42. Zijlstra H, Boeije HR, Larsen JK, van Ramshorst B, Geenen R. 2009. Patients' explanations for unsuccessful weight loss after laparoscopic adjustable gastric banding (LAGB). *Patient Educ Couns* 75(1): 108-113. https://dx.doi.org/10.1016/j.pec.2008.09.023
43. Shearer RT. 2010. An exploration of obese patients' beliefs and expectations relating to bariatric surgery, using Thematic Analysis (Doctoral dissertation, University of Glasgow).
44. Miller R. 2000. Researching life stories and family histories. SAGE, London, UK.
45. Thomson R, Holland J. 2003. Hindsight, foresight and insight: the challenges of longitudinal qualitative research. *Int J Soc Res Methodol* 6(3): 233-244. https://dx.doi.org/10.1080/1364557032000091833
46. Hefferon K, Gil-Rodriguez E. 2011. Interpretative phenomenological analysis. *The Psychologist* 24(10): 756-779.
47. NICE. 2002. Guidance on the use of surgery to aid weight reduction for people with morbid obesity.
48. Shaw RL. 2011. Women's experiential journey toward voluntary childlessness. *J Community Appl Soc Psychol* 21(2): 151-163. https://dx.doi.org/10.1002/casp.1072
49. Dyer C. 1995. Beginning Research in Psychology. Blackwell, Oxford.
50. Binks A, Pyke M. 2008. Anaesthesia in the obese patient. *Anaesthesia and Intensive Care Medicine* 9(7): 299-302. https://doi.org/10.1016/j.mpaic.2008.04.018

51. Heatherton TF, Nichols PA. 1994. Personal accounts of successful versus failed attempts at life change. *Personality & Social Psychology Bulletin* 20(6): 664-675. https://dx.doi.org/10.1177/0146167294206005

52. Geraci AA, Brunt AR, Marihart CL. 2014. Social support systems: a qualitative analysis of female bariatric patients after the first two years postoperative. *Bariatric Surgical Practice and Patient Care* 9(2): 66-71. https://dx.doi.org/10.1089/bari.2014.0004

53. Hancock J, Jackson S, Johnson AB. 2016. The reasons for disclosing (or not) laparoscopic adjustable gastric banding surgery and the impact on long-term weight loss. *Stigma & Health* (In press).

54. Stubbs J, Whybrow S, Teixeira P, Blundell J, Lawton C, et al. 2011. Problems in identifying predictors and correlates of weight loss and maintenance: implications for weight control therapies based on behavioural change. *Obes Rev* 12(9): 688-708. https://dx.doi.org/10.1111/j.1467-789X.2011.00883.x

55. Moss RA. 2013. Givers and takers: clinical biopsychological perspectives on relationship behaviour patterns. *International Journal of Neuropsychotherapy* 1(2): 31-46. https://dx.doi.org/10.12744/ijnpt.2013.0046

56. Larsen JK, Van Ramshorst B, Geenen R, Brand N, Stroebe W, et al. 2004. Binge eating and its relationship with outcome after laparoscopic adjustable gastric banding. *Obes Surg* 14(8): 1111-1117. https://dx.doi.org/10.1381/0960892041975587

57. Elfhag K, Rossner S. 2005. Who succeeds in maintaining weight loss? A conceptual review of factors associated with weight loss maintenance and weight regain. *Obes Rev 6*(1): 67-85. https://dx.doi.org/10.1111/j.1467-789X.2005.00170.x

58. Silva SSP, Maia AC. 2013. Patients' experiences after bariatric surgery: a qualitative study at 12-month follow-up. *Clin Obes* 3(6): 185-193. https://dx.doi.org/10.1111/cob.12032

59. Wysoker A. 2005. The lived experience of choosing bariatric surgery to lose weight. *Journal of American Psychiatric Nursing Association* 11(1): 26-34. https://dx.doi.org/10.1177/1078390305275005

60. Sjöström L. 2013. Review of the key results from the Swedish Obese Subjects (SOS) trial–a prospective controlled intervention study of bariatric surgery. *J Intern Med* 273(3): 219-234. https://dx.doi.org/10.1111/joim.12012

61. Arcury TA, Quandt SA. 1999. Participant recruitment for qualitative research: a site-based approach to community research in complex societies. *Human Organization* 58(2): 128-133. https://dx.doi.org/10.17730/humo.58.2.t5g838w7u1761868