


# ‘Surgery is my only hope’: A qualitative study exploring perceptions of living with obesity and the prospect of having bariatric surgery

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## Summary

The health benefits of bariatric surgery are well documented; however, the occurrence of weight-regain after surgery, along with the development of mental health difficulties poses a question of how contemporary psychology could assist to prepare people living with obesity prior to undergoing bariatric surgery. This research explored individuals' (in the immediate pre-operative and post-operative population) attitudes, beliefs and experiences towards obesity and their journey to bariatric surgery. Seventeen adult participants (males  $n = 4$ ; age range: 26–64 years) were recruited and participated in a semi-structured interview. Twelve individuals participated prior to undergoing bariatric surgery. Five individuals participated in the early post-operative period (<3 months post-surgery). People living with obesity displayed high optimism for positive outcomes, with participants hoping that bariatric surgery would be different to previous attempts at weight regulation, with there being a clear shift in the locus of control for weight management from self to healthcare professionals. Whilst this is adaptive, there was the presence of seemingly unrealistic optimism, with many pre-surgery participants not relaying the realistic possibility of post-surgery weight-regain. Despite the optimism individuals feel about bariatric surgery, participants felt that the psychological factors influencing eating behaviours are not being addressed by healthcare. These findings suggest that mindfulness, mindful eating, and self-compassion approaches should be incorporated into clinical practice to support weight regulation and adaptation to physiological changes after bariatric surgery.

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**KEYWORDS**

bariatric surgery, mindful eating, mindfulness, obesity, qualitative methods, self-compassion

**What is already known about this subject?**

- Bariatric surgery is highly effective for weight loss, with an average of 27% weight loss over 15 years and is a recommended treatment for individuals with severe obesity.
- Despite the benefits of bariatric surgery in terms of physical health, the literature reports that the psychological benefits of bariatric surgery may have a limited time effect of approximately 2 years before returning to the levels observed pre-surgery.
- Hence, pre-surgery behavioural and psychological interventions are essential to facilitate the post-surgery period of physiological change and adjustment to life after bariatric surgery.

**What this study adds?**

- This study explores the attitudes, beliefs, and experiences of individuals living with obesity who are preparing to undergo bariatric surgery or have recently undergone a bariatric surgery procedure.
- This study provides insights from the patient perspective to guide healthcare professionals in providing early intervention strategies to support patients during their bariatric surgery journey, focusing on behavioural and psychological drivers that may impact eating behaviours and adjustment to life after bariatric surgery.
- The findings of this study support that integrating mindfulness, mindful eating, and self-compassion before and after bariatric surgery could be beneficial for patients to support positive adaptive coping mechanisms and to promote helpful eating behaviour to optimise response to bariatric surgery, especially for individuals who experience self-blame and self-stigmatisation.

**1 | INTRODUCTION**

The prevalence of obesity is rising globally and is associated with a negative impact on the metabolic, physical and mental health of people living with obesity. It is estimated that 29% of adults in England (and approximately 13% of adults worldwide) are classified as having obesity.<sup>1</sup> Obesity treatments offer an opportunity to reduce the disease's impact on individuals, society, and the health economy. Behavioural lifestyle interventions are modestly effective, resulting in 3%–10% weight loss, but weight regain is common in most patients.<sup>2</sup>

Bariatric surgery is the most effective weight loss intervention, resulting in an average weight loss of 27% over 15 years<sup>3</sup> and, in the UK, it is recommended for individuals with severe obesity (i.e., BMI  $\geq 40$  kg/m<sup>2</sup> or BMI 35–39 kg/m<sup>2</sup> with an obesity complication).<sup>4</sup> Bariatric surgery is associated with a favourable impact on obesity-related complications, such as type 2 diabetes, obstructive sleep apnoea, hyperlipidaemia, hypertension, cancer, and cardiovascular disease.<sup>5</sup> Additionally, bariatric surgery has been shown to have positive effects on psychological health, including improved quality of life and improvements in anxiety and depression.<sup>6</sup>

Despite the benefits of bariatric surgery, an increase in weight regain occurs in 21% of patients following initial weight loss after bariatric surgery.<sup>7</sup> A recent literature review indicated that the diverse reported weight regain (WR) outcomes in studies from variations in WR measures, assessment timing, surgical procedures, and study

design characteristics. Factors such as small sample sizes, low participation rates, incomplete data, and the use of binary WR measures contribute to unreliable estimates, suggesting that the proportion of individuals gaining a specific percentage of weight over a defined period is a more reliable definition and measurement of weight regain.<sup>7</sup> Factors contributing to weight regain are not fully understood but involve a combination of biological, psychological, and lifestyle determinants.<sup>8</sup> Dawes et al.'s<sup>9</sup> meta-analysis of 68 publications revealed that depression (19%) and binge eating disorder (17%) were the most common mental health conditions among patients seeking or undergoing bariatric surgery. There was, however, conflicting evidence regarding the association between pre-operative mental health conditions and the extent of post-operative weight loss. It is important to explore the psychological implications of living with obesity and undergoing bariatric surgery, particularly before surgery, to develop a pre- and post-surgery psycho-social-behavioural support plan for relapse prevention. This support plan can also assist individuals with maladaptive eating behaviours like emotional eating and binge eating.

Furthermore, some of the literature reports that the psychological benefits of bariatric surgery have a limited time effect of approximately 2 years before returning to the levels observed pre-surgery.<sup>10</sup> Whilst uncommon, there is an increased risk of suicide and self-harm post-surgery, with the probability of suicide or self-harm being two to three times higher following surgery compared with matched

controls.<sup>11,12</sup> More commonly, the risk of alcohol addiction increases post-surgery, hence appropriate psychological support and treatment is needed to be offered alongside bariatric surgery.<sup>12</sup> It is plausible that some individuals replace food (i.e., emotional eating) with new (maladaptive) coping mechanisms post-surgery signifying the potential of weight regulation and wellbeing.

Research is therefore needed to investigate how contemporary psychology could assist in the pre-operative preparation of people living with obesity who are planning to undergo bariatric surgery. This research aims to inform how healthcare professionals can intervene early on, and manage expectations, predominantly aiming to support physical and psychological wellbeing for individuals in both pre- and post-bariatric surgery.

## 2 | MATERIALS AND METHODS

### 2.1 | Participants

Adults aged 18 years or above who were in the immediate pre-operative/post-operative bariatric population (<3 months post-surgery) were eligible to participate (exclusion criteria included those who had a diagnosed eating disorder). Eligible participants were recruited using opportunity sampling, with the lead researcher approaching people during their clinic appointment (either a pre-operative appointment, or a post-operative follow-up appointment) at a hospital in the West Midlands, UK. Eligible individuals were identified by their multi-disciplinary team (MDT). The pre- and post-operative aftercare for

people undergoing bariatric surgery in the private sector is less likely to have access to psychological support relating to living with bariatric surgery, compared to people undergoing bariatric surgery funded through the National Health Service (NHS). It is worth noting that the present research is exploring a more diverse sample in comparison to a private sector sample, which would serve patients from a more favourable socioeconomic background. Recruitment ran until data saturation occurred.

In total 22 participants were recruited, with 17 participants completing the interview (males  $n = 4$ , females  $n = 13$ ; age range: 26–64 years; mean age of participants: 46 years). Twelve individuals participated before undergoing bariatric surgery (4 months–3 weeks prior to surgery) with a mean BMI of 45.9 kg/m<sup>2</sup>; five of those participants were scheduled to have a sleeve gastrectomy (SG), five were scheduled to have a Roux-en-Y gastric bypass (RYGB) and two were scheduled to have an adjustable gastric band (AGB). Five individuals participated post-bariatric surgery (3 weeks–3 months post-surgery) with a mean BMI of 41.5 kg/m<sup>2</sup>; three of those participants had a SG, and two had an AGB (see Table 1).

### 2.2 | Semi-structured interviews

The semi-structured interviews started by investigating participants' beliefs about their obesity and the impact obesity has had on their lives, exploring the reasons behind their lifestyle choices and health behaviours. The interview schedule then moved on to discussing views towards, and any experiences with, weight management. This

**TABLE 1** Participant demographics.

Pseudonym	Sex	Age	BMI	Type of surgery	Pre-op/post-op
Laura	F	26 years	40	SG	Pre-op (6 weeks to surgery)
Charlotte	F	36 years	56.1	SG	Pre-op (6 weeks to surgery)
Ellie	F	36 years	37.3	SG	Pre-op (surgery within the next 4 months)
Angela	F	64 years	35.7	SG	Post-op (3 weeks since surgery)
Paul	M	39 years	49.03	RYGB	Pre-op (6 weeks to surgery)
Maxine	F	53 years	61	SG	Pre-op (6 weeks to surgery)
Louise	F	32 years	44.7	SG	Pre-op (4 weeks to surgery)
Kevin	M	50 years	60.1	RYGB	Pre-op (4 weeks to surgery)
Pam	F	64 years	39.3	AGB	Pre-op (4 weeks to surgery)
Diane	F	57 years	40.4	AGB	Pre-op (4 weeks to surgery)
Shelly	F	61 years	45.4	SG	Post-op (1 month since surgery)
Peter	M	52 years	46.7	RYGB	Pre-op (2 months to surgery)
Alan	M	44 years	32.9	RYGB	Pre-op (was offered surgery in June'19 but refused as wanted to lose weight on own)
Helen	F	46 years	37.5	SG	Post-op (3 months since surgery)
Nicole	F	39 years	49.2	AGB	Post-op (2 months since surgery)
Stephanie	F	31 years	42.9	RYGB	Pre-op (3 weeks till surgery)
Amy	F	48 years	39.7	AGB	Post-op (1 month since surgery)

Abbreviations: AGB, adjustable gastric band; RYGB, Roux-en-Y gastric bypass; SG, sleeve gastrectomy.

included a discussion regarding any barriers to weight management participants have experienced, before discussing participants' thoughts and feelings towards bariatric surgery. As this research was qualitative, it allowed for exploration of the defined areas, and elaboration by participants on other related topics, with question wording and order being contextual and in response to the participants developing accounts. The qualitative interviews enabled the research team to take an interpretive perspective on what life is like when dealing with obesity and the prospect of bariatric surgery, with the research acknowledging the importance of individual differences.

The semi-structured interview schedule (see Supporting Information) was developed through consulting existing literature. Interviews were conducted either via telephone or face-to-face depending upon the participants' availability and preference. The interviews lasted a maximum of 60 min. Participants did not have to answer any questions they did not want to. All participation was voluntary and confidential, with participants being provided with pseudonyms. Participants could withdraw from the research at any time; however, none chose to do so.

### 2.3 | Ethical approval

Ethical approval was obtained via the East of England—Essex NRES Committee (REC reference: 18/EE/0090), and the R&D department at the research site. Written informed consent was obtained from all individual participants included in the study.

### 2.4 | Analysis

The recordings of the interviews were transcribed verbatim. The data was analysed using thematic analysis following Braun and Clarke's (2006) model,<sup>13</sup> as this is a flexible method. As the reasons for engaging in health behaviours are context-dependent, thematic analysis was used as a contextualist method, acknowledging how participants attributed meaning to their experiences of obesity, alongside the social meanings of this, e.g., stigma and shame; indicating that meanings and experiences are socially produced and reproduced rather than being inherent. The thematic analysis provided a detailed inductive construction of the entire data set, providing valuable information to a currently under-researched area within weight management.

To conduct thematic analysis, codes were initially generated by one researcher, and subsequently revised and evaluated by everyone on the research team until they reached an agreement for each code. Themes were constructed together and confirmed once agreement on their representation of data was reached. Similarly, researchers evaluated how each code fitted (or not) within the themes. The validity of findings was therefore supported when all researchers agreed on a common interpretation of the data. This method of triangulation demonstrates that the theories have been challenged and integrated to produce a clear understanding of participants' experiences with obesity and their perceptions towards bariatric surgery.

## 3 | RESULTS

Three themes were constructed from the data set providing an exploration into participants' attitudes, beliefs, and experiences with obesity (for a more in-depth insight into these themes, please refer to supplementary material S1).

All participants described a life-long 'battle' in attempting to control their weight, consisting of various 'diets' and exercise regimens, with participants expressing frustration and sadness in response to their weight and a clear desire for change. Participants discourse highlighted that they were not aware of the biology of obesity and their weight, and instead highlighted a wealth of different motivators that they felt had influenced their eating behaviours (and therefore their weight), such as their socioeconomic status, their culture, and their work. Food was deemed to provide more than a functional role for participants, with it being apparent from some participants' discourse that eating provides some form of comfort, with such participants giving a range of reasons for their obesity, including sexual abuse, family death, and difficulty accepting their sexuality.

In addition to the distress and trauma described by some participants in their personal life which they perceived to influence their eating behaviours, many participants discussed their attitudes and beliefs regarding themselves (particularly in response to their weight) which they explained was partly influenced by societal reactions. Many participants recalled situations where they had been exposed to verbal abuse due to their weight with this impacting their confidence and self-esteem, and in some cases resulting in psychological distress. The discrimination, criticism, and judgement that participants had received from others, along with their psychological distress, impacted their willingness to engage in activities pre-surgery (e.g., social events and attending a gym) and was often the initial motivation for them to consider bariatric surgery. Many believed that post-surgery they would be able to lead what they perceived to be a more 'normal life' and engage in social activities without feeling they are being judged for their weight. Participants also discussed the beneficial impact they believed bariatric surgery would have on their physical health (e.g., improving the comorbidities associated with their obesity). Participants were excited and hopeful for their future post-surgery, however, they explained how it did take them a while to accept the need for surgery, being frustrated and upset that they could not lose the weight themselves, demonstrating elements of self-criticism.

All participants interviewed had perceived that they had been on a 'long journey' filled with what they deemed to be a personal 'failure' in their weight management attempts and held a strong belief that bariatric surgery would be different. However, notwithstanding the excitement associated with the prospect of surgery, some pre-operative participants did experience negative emotions. For instance, several participants described that they were anticipating a grieving of food, being aware that their eating habits will have to change post-surgery despite their 'love' for food, this was particularly evident when food had been a comfort for participants. Some participants also explained their fear towards the surgery and the risks associated with it. As a consequence of the anxiety some individuals experience

during the wait for bariatric surgery, and the difficulties some encounter post-surgery, many participants suggested the need for support groups to be integrated into the process of undergoing bariatric surgery, discussing how beneficial it would be to be able to communicate with others in a similar situation.

Overall, participants due to, or having recently undergone, bariatric surgery expressed that they had been given a great deal of support from dietitians to change their eating behaviours, e.g., focusing on portion size and what food to consume. It is however, apparent from the data that some participants felt they lacked psychological support in response to personal suffering and trauma experienced which they believed had influenced their eating behaviours and therefore weight. Participants perceived that psychological support during this time would assist them to 'work with' their bariatric surgery, with a pre- and post-surgery psycho-social-behavioural support plan having the potential to act as relapse prevention.

## 4 | DISCUSSION

The current research provides a qualitative exploration into the impact obesity has had upon individuals' lives, encompassing both physical and psychological wellbeing, as well as participants' perceptions towards bariatric surgery, with this research emphasising the individuality of each participant. This research provides a novel insight as it recruited individuals from the immediate pre-operative/post-operative population. The data generated is therefore generally prospective, presenting an understanding of attitudes, beliefs and experiences towards bariatric surgery in real-time, whilst having a retrospective focus regarding what participants believe has influenced their weight and eating behaviours over their life. It is important to understand the perception of patients in the immediate pre-operative/post-operative stage to ultimately support them in the longer term, with the findings of the current study providing insight into how healthcare providers can intervene early on and support people living with obesity to work with their bariatric surgery (e.g., by focusing on the behavioural and psychological motivators that prior to bariatric surgery were influencing their eating behaviours). It was clear from the data the difficulty individuals experience when accepting the need for bariatric surgery, often demonstrating self-criticism regarding the fact they cannot lose weight themselves. The frustration experienced by many participants suggests that they are still internalising the stigma and blame associated with obesity as opposed to understanding obesity as a chronic disease.

Overall, this research illustrates the depth, complexity, and individuality of meanings that individuals attribute to food and eating (e.g., biological, social, behavioural and psychological motivators). In line with previous research, it appeared that for many participants their eating behaviours (prior to bariatric surgery) were largely emotionally driven, with eating providing pleasure and comfort to such individuals, e.g., when experiencing distress within their lives. In addition to the psychological motivators influencing eating behaviours, portion size and food choices were highlighted by participants as an

issue impacting their weight, with individuals choosing calorie-dense palatable foods to consume prior to bariatric surgery. It is commonly reported in the literature that individuals consume high quantities of calorie-dense palatable foods as a coping mechanism, again in line with emotional eating.<sup>14</sup>

Once people living with obesity had developed an acceptance regarding the need for bariatric surgery, participants were then optimistic of their future post-surgery. The high optimism displayed is interesting given that surgery is only considered when all previous attempts at weight regulation have been unsuccessful. We see from this, that surgery is understood to be an entirely 'different' treatment from other weight regulation attempts. However, none of the participants discussed the realistic possibility that they may have an increase in weight following the initial weight loss post-surgery or that they may not lose significant weight at all. The average weight loss at 20 years post-surgery is still 25%,<sup>12</sup> and although this may seem a 'success', patients often elicit self-blame for regaining weight, and often wish to be the weight they were at their lightest post-surgery. Furthermore, the weight loss trajectories at the individual level can vary, with some individuals not losing weight or indeed gaining weight.<sup>15</sup> Consequently, there is a need for healthcare professionals to manage patient expectations, and counsel that some weight regain is expected and to emphasise that each individual's weight loss trajectory after surgery will be different.

Despite the optimism displayed for life post-surgery, the wait for bariatric surgery is seen to be an emotionally challenging period. Participants, therefore, suggested the need for support groups, explaining how beneficial they would have found it to hear from individuals who have already gone through the process of bariatric surgery. This would be particularly welcomed by those who are experiencing anxiety at the thought of surgery, or due to the fear of post-operative complications, with research acknowledging that in general the more anxiety an individual feels before surgery, the more difficult their adjustment and recovery are likely to be after surgery.<sup>16</sup> Research illustrates the beneficial impact communications with others 'in a similar position' to oneself can have on psychological wellbeing, e.g.,<sup>17-19</sup> with communications with an individual who has undergone a medical procedure being associated with a reduction in anxiety and positive adjustment, with support groups often empowering individuals. The integration of support groups into bariatric pre-operative and post-operative care is therefore a recommendation for clinical practice to employ.<sup>20-22</sup>

In addition to the social support required, guidelines on psychological therapy in bariatric surgery,<sup>23</sup> endorsed by the British Obesity Metabolic Surgery Society (BOMSS), recommend that all patients have a psychological screening assessment between 6 and 9 months post-surgery to identify the need for psychological intervention to mitigate poorer outcomes, such as eating disorders and mental illness. More recently, Ratcliffe and Banting<sup>24</sup> conducted an exploratory study aimed at addressing the lack of clarity regarding the role of psychologists in the bariatric multi-disciplinary team (MDT) in the United Kingdom. Surveys of psychologists, patients, and the MDT revealed that psychologists in UK bariatric services primarily focus on pre-operative assessments, with differences in perception emerging

between psychologists and the MDT regarding the purpose of these assessments. The study highlighted the high demand for services, limited psychology resources, the need for education, consensus, and adequate resourcing to enhance the coherence of psychology services in the context of bariatric surgery in the UK.

Despite the guidelines and recent findings, participants reported that despite the psychological drivers, which they believed had influenced their eating behaviours and therefore weight, they had not received any psychological support alongside their bariatric surgery (or during their wait for surgery). It is therefore clear that new interventions are required to focus on wellbeing and the psychological motivators influencing eating behaviours, to encourage long-term changes in eating behaviours and to help individuals work with their bariatric surgery. For instance, despite participants reporting their motivation to maintain their weight loss post-surgery, and communications from healthcare professionals suggesting that bariatric surgery cannot work alone, there was an absence in the data of psychological support that has been provided to participants, with the service that participants were recruited from not providing post-surgery psychological support. Surgery offers physical restriction and, depending on the procedure, hormonal appetite control, which may be sufficient in reducing energy intake initially post-surgery; psychological support could be beneficial if used post-surgery to assist individuals in maintaining their weight loss and adjusting to experienced physiological changes post-surgery.

It is plausible that individuals will replace their previous eating behaviours with new (maladaptive) coping mechanisms post-surgery. For instance, whilst the risk is comparatively small, suicide, self-harm and alcohol-use disorder are reported post-surgery with this warranting further investigation.<sup>12</sup> Psychological interventions could encourage individuals to adopt helpful adaptive coping mechanisms in response to psychological distress/trauma they have encountered, such as obesity stigma. Research highlights the need for interventions to focus upon this stigma due to the negative effect it can have on physical and psychological wellbeing, which can lead to the avoidance of healthcare and a disruption in the doctor-patient relationship.<sup>25,26</sup> Such coping mechanisms could be a way of overcoming the emotional and psychological distress that is experienced when living with obesity.

In addition, people undergoing bariatric surgery in this sample exhibited self-criticism and self-blame, and therefore it is imperative for bariatric surgery patients to understand obesity as a disease in order to aid with the resolution of such criticism and address internalised weight bias. Mindfulness and self-compassion-based interventions is an area which warrants further investigation in bariatric surgery patient populations. As in other research, the shifting of responsibility to the individual, and the judgement, stigma and isolation that is felt by people trying to tackle their higher weight is an element that may be tackled through compassion-based interventions. Several researchers and clinicians have proposed how compassion can be beneficial for people, and in a therapeutic context, to enhance the support to people entering bariatric surgery.<sup>27,28</sup> Self-stigmatisation was also seen as some individuals appeared to be self-critical currently when using food as a treat (either pre- or post-operatively).

Consequently, data suggests that interventions focusing on self-compassion could be integrated to overcome the self-stigmatising burden that is a barrier to successful weight-regulation,<sup>27</sup> alongside mindfulness/mindful eating.

Research illustrates that high levels of self-compassion are associated with individuals eating in a mindful way,<sup>29</sup> with self-compassion and mindful eating being integrated into practices to promote adaptive and healthier eating behaviours.<sup>28,30-33</sup> Self-compassion can be conceptualised as taking a kinder approach towards oneself during personally challenging times, with a mindful awareness and understanding that one's experiences are part of what all people go through. Self-compassion consists of three main elements: self-kindness, common humanity, and mindfulness,<sup>34,35</sup> creating a theoretical bridge in reinstating the basic functions of mindful eating and fully experiencing eating.

The practice of mindfulness is defined as an awareness that emerges through purposefully paying attention in the present moment, non-judgmentally,<sup>36</sup> with interventions, being associated with reducing stress and negative emotions within individuals. Such interventions are typically practiced in the form of meditation where individuals learn to be aware of the present moment in a non-judgmental way, with research reporting the positive impact they have on psychological wellbeing.<sup>37,38</sup>

Mantzios and Wilson<sup>28</sup> suggested that mindful eating interventions may be more relevant for weight regulation and eating behaviour modification. Mindful eating can be integrated into interventions alongside bariatric surgery, complementing existing dietary and behavioural modifications. It involves purposefully paying attention to meals with a non-judgmental attitude.<sup>39</sup> Mindful eating promotes healthier eating habits, such as increased fruit and vegetable intake<sup>40</sup> and reduced consumption of sugary and energy-dense foods.<sup>41,42</sup> Research shows that mindful eating is associated with lower fat and sugar intake,<sup>43</sup> reduced grazing,<sup>44</sup> weight maintenance,<sup>45</sup> decreased motivations for indulgent foods,<sup>46</sup> and improved self-regulation in experimental designs.<sup>47-50</sup> The significance of weight maintenance, grazing, and regulating motivations to eat are key factors for bariatric surgery<sup>51,52</sup> and potentially assisted through the presence of mindful eating interventions in conventional treatments. Whilst some participants reported accounts of eating in accordance with mindful eating, this was not because of interventions delivered as part of healthcare, and not an explicit attempt to investigate mindful eating. More recent evidence from Barley et al.,<sup>53</sup> who conducted a randomised controlled trial testing the feasibility and acceptability of Acceptance and Commitment Therapy (ACT) after bariatric surgery indicated mixed findings. Low attendance in both the ACT and Usual Care arms of the study provided some preliminary evidence that those who attended ACT reported benefits, suggesting the trial processes were feasible, but adjustments to recruitment and intervention delivery were needed to enhance acceptability.

#### 4.1 | Strengths and limitations

Whilst this research provides insights from the patient perspective to guide healthcare professionals in providing early intervention



strategies to support patients during their bariatric surgery journey, some limitations have been identified. All participants in the current research were recruited from one surgical centre, which limits the transferability of findings. Only five of the recruited participants were post-operative patients; thus, further research is required to investigate more thoroughly the experience of having undergone bariatric surgery and recovering in the early post-operative period. Further research is also required to explore how and why eating behaviours change post-surgery, and the lived experience at different time periods post-surgery.

## 4.2 | Conclusion

This research explores living with obesity and perceptions of undergoing bariatric surgery. Pre-surgery interventions are necessary to support individuals during the post-operative period. Integrating mindfulness and self-compassion alongside bariatric surgery care could alleviate self-blame and stigma and support the development of helpful adaptive coping mechanisms and eating behaviours; to optimise response to bariatric surgery.

### AUTHOR CONTRIBUTIONS

**Conceptualization:** Rebecca Keyte, Michail Mantzios, Misba Hussain, Abd Tahrani, Sally Abbott, Rachel Strachan, Rishi Singhal and Helen Egan. **Data curation:** Rebecca Keyte, Sally Abbott and Rachel Strachan. **Formal analysis:** Rebecca Keyte, Michail Mantzios, Misba Hussain and Helen Egan. **Project administration:** Rebecca Keyte. **Validation:** Rebecca Keyte, Michail Mantzios, Misba Hussain, Abd Tahrani, Sally Abbott, Rachel Strachan, Rishi Singhal and Helen Egan. **Writing—original draft:** Rebecca Keyte. **Writing—review and editing:** Rebecca Keyte, Michail Mantzios, Misba Hussain, Abd Tahrani, Sally Abbott, Rachel Strachan, Rishi Singhal and Helen Egan.

### CONFLICT OF INTEREST STATEMENT

All authors declare that they have no conflict of interest. SA has received consultation fees and speaker honorarium from Johnson & Johnson. SA also holds un-paid roles as Integrated Health Professional representative on BOMSS council and Bariatric Officer for the British Dietetic Association Obesity Specialist Group. AAT is currently an employee of Novo Nordisk, Denmark. Novo Nordisk had no role in this work.

### ETHICS STATEMENT

All procedures performed within this research which involved human participants was in accordance with the ethical standards of the institutional and/or national research committee (Business, Law and Social Sciences Ethics Committee at Birmingham City University; East of England—Essex NRES Committee) and with the 1964 Helsinki declaration and its later amendments. Informed consent was obtained from all individual participants included in the study.

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## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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## APPENDIX A

### A.1 | SAMPLE INTERVIEW SCHEDULE

#### A.1.1. | Ice breakers question's

- Thank you for taking part
- What were your first thoughts when you were asked to take part in this research?
- Did you have any hesitations about agreeing to take part?
- So to begin with, can you tell me a bit about your life?
  - What do you do in your spare time?
  - Do you work/study?

#### A.1.2. | Impact obesity has upon on the individual's personal life

- Could you tell me about some of the challenges you have faced during your life in regards to weight management?
- Has it always been these aspects/things that you have found challenging, or were other aspects/things more difficult to cope with previously?
  - Impact obesity has upon mental health as well as physical health
- Why is it that you want to lose/did want to lose weight?
  - When did this motivation commence?
- How long have you tried to lose weight for?
  - What methods have you tried?
- How do you find sticking to e.g., diets/exercise plans?
  - Are there any aspects that are more difficult?
  - Has this changed over time/circumstances?
- What 'methods' of weight management do you tend to 'miss out'?
- At the end of the day if you have e.g., missed an exercise session/ ate something which you shouldn't, how does it make you feel?
- When you wake up in a morning, do you plan to stick to your regimen?
- Are there some days when you wake up and you know you're just not going to do everything?

#### A.1.3. | Barriers to weight management

- What things make it difficult to stick to the regimen (e.g., diet/exercise)?

Areas for further elaboration may include:

- Not enough time in the day with their job, etc.
- Not seeing any improvement
- Not losing any weight
- Using food as a coping mechanism
- Are there any situations where you are less likely to follow your weight management regimen (e.g., diet/exercise)?

- What makes it harder to follow your regimen in these situations?

#### A.1.4. | Thoughts/feelings towards bariatric surgery

- What are your thoughts/feelings towards bariatric surgery?
  - Optimism
  - Fear
- When did you start considering bariatric surgery?
  - How did you learn about bariatric surgery?
  - What impact was your weight having upon your health (physical and psychological)?
- What were your thoughts/feelings towards bariatric surgery when it first became an option?
  - How have those changed over time?
  - What caused those to change over time?
- How do you think you will find maintaining your weight loss after surgery/How have you found maintaining your weight loss post-surgery and how do you think this will be going forward?
  - Has this been discussed as part of your care?
  - What tools/strategies do you have in place?
  - What tools/strategies would you like in place?

#### A.1.5. | Reactions from others

- Are you open with family and friends about your thoughts towards your weight?
  - What is their reaction?
  - What are their thoughts towards bariatric surgery?
- How do you think society views being overweight/obesity and bariatric surgery?
  - What reactions have you received throughout your life?
- Who do you go to with any concerns regarding your weight?
  - What about the impact your weight has upon your mental health?/your physical health?

#### A.1.6. | Conclusion

- What would you want to tell someone who is struggling with controlling their weight?
- What about if they were considering bariatric surgery?
- What would you tell a family who had a relative who is struggling with their weight/considering bariatric surgery?
- Is there any additional support you feel would have been beneficial throughout your 'weight management journey'?
- Honestly if you were to have this discussion with another person who was also due to undergo/had undergone bariatric surgery, do you think your answers would be any different?
- Do you have anything else to add?