

Institution: University of Sunderland		
Unit of Assessment: 3		
Title of case study: Changing professional practice and improving health and wellbeing around bariatric surgery.		
Period when the underpinning research was undertaken: 2014-2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Dr. Yitka Graham	Associate Professor in Health Services Research	2014-present
Prof. Catherine Hayes	Professor of Health Professions Pedagogy and Scholarship	1999-present
Period when the claimed impact occurred: 2016-December 2020		
Is this case study continued from a case study submitted in 2014? N		
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Graham's research on the social aspects of bariatric surgery has improved the practice of over 550 surgeons, nurses, psychologists and nutritionists in the UK, Mexico and India. Clinicians better understand the social factors that influence life after surgery, the need for specialised contraceptive support and the role that pharmacists play after discharge. For the first time they systematically address these issues in pre- and post-operative care, leading to improved health and wellbeing of 111,000 patients around the world. The work empowers patients to overcome discrimination and challenges the stigma associated with bariatric surgery, giving voice to - and validating the experiences of - often alienated individuals.</p>		
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>Obesity is an increasing global health issue, with nearly 30% of adults in the UK classed as obese. Obesity is a stigmatised health condition, which results in a poor quality of life for many people. An increasing number of adults with obesity seek bariatric surgery as a method of weight-loss and improvement of illnesses associated with obesity, e.g. Type 2 diabetes. Bariatric surgery is commonly perceived as both cosmetic and an easy way to lose weight, and portrayed as cheating, and/or that the surgery does the work and not the person. Currently only a small body of research explores the patient perspective of bariatric surgery.</p> <p>This research, led by Graham, was undertaken in collaboration with Sunderland Royal Hospital, one of the highest volume centres in the UK. A series of qualitative studies examined the patient experience of the impact of bariatric surgery on their everyday lives. Individual face to face interviews were held with patients up to two years post-operatively, exploring self-reported issues in detail.</p> <p>The findings show that many bariatric patients who have been stigmatised for their weight go on to be judged further for the method of their weight loss. The mechanisms of bariatric surgery induce rapid weight loss, which may significantly alter a person's physical appearance, leaving them open to scrutiny over the changes from others. In order to avoid any confrontation and judgment, many people choose not to disclose the method of weight-loss and resort to lying or avoiding the discussion altogether. This has a significant impact on a person's life and may hinder social encounters and situations.</p> <p>The findings [R1] provided three conceptual risk adjustment categories that patients may fall into: Risk Accepters (accepting of the social risks and comfortable disclosing), Risk Challengers (who accept the social risks, but are not compliant with post-surgical advice) and Risk Contenders (who are wary/frightened of social risks and disclosure, and whose adjustment process following surgery is complex owing to ongoing social and clinical issues). Explicating these categories provides a framework for clinical discussions and for patients to have a non-clinical framework to reflect on.</p>		

Findings further showed areas where patient support was provided well [R3] and illuminated areas where it could be more fully utilised, such as the use of social media and technology [R2], along with exploring a potential role for community pharmacies to be involved in patient care, to bridge the gap between hospitals and community and provide long-term support once patients were discharged. [R2, R3, R5]

The highest proportion of people who seek bariatric surgery are females in their reproductive years, and issues such as contraception, fertility and sexual health are important, but are not widely discussed in surgical environments [R4, R6]. Further research, based on patient and clinician responses, identified gaps in knowledge and pathways to improve patient care.

The research highlights the need for clinicians working within bariatric surgical multidisciplinary teams to be aware of the impact of social changes following surgery and the need to embed these into patient support in clinical environments. The findings have informed further work into sources of support outside the bariatric surgical teams, with published research into the patient-reported impact on the role of the specialist bariatric pharmacist focussing on how community pharmacists might be utilised to provide additional support for patients in community-based settings [R6].

3. References to the research (indicative maximum of six references)

R1 Graham, Yitka, Hayes, Catherine, Small, Peter, Mahawar, Kamal and Ling, Jonathan (2017) *Patient experiences of adjusting to life in the first two years after bariatric surgery: a qualitative study*. Clinical Obesity. ISSN 1758-8111 **Quality indicator:** Peer-reviewed journal article. 19 citations.

R2 Graham, Yitka, Hayes, Catherine, Mahawar, Kamal, Small, Peter, Attala, Anita, Seymour, Keith, Woodcock, Sean and Ling, Jonathan (2017) *Ascertaining the place of social media and technology for bariatric patient support: what do allied health practitioners think?* Obesity Surgery. ISSN 0960-8923 (Print) 1708-0428 (Online) **Quality indicator:** Peer-reviewed article in Q1 journal. 17 citations.

R3 Graham, Yitka, Callejas-diaz, Lindes, Parkin, Lindsay, Mahawar, Kamal, Small, Peter and Hayes, Catherine (2018) *Exploring the patient-reported impact of the pharmacist on pre-bariatric surgical assessment*. Obesity Surgery. pp. 1-12. ISSN 0960-8923 **Quality indicator:** Peer-reviewed article in Q1 journal.

R4 Graham, Yitka, Mansour, D., Small, P.K., Hinshaw, Kim, Gatiss, S., Mahawar, K.K., McGarry, Kenneth and Wilkes, Scott (2016) *A survey of bariatric surgical and reproductive health professionals' knowledge and provision of contraception to reproductive-aged bariatric surgical patients*. Obesity Surgery, 26 (8). pp. 1918-1923. ISSN 0960-8923 **Quality indicator:** Peer-reviewed article in Q1 journal. 18 citations.

R5 Mahawar, K, Hayes, C and Graham, Yitka (2019) *Ascertaining areas for long-term follow-up of bariatric surgical patients for primary care*. Bariatric Surgical Practice and Patient Care. ISSN 2168-023X **Quality indicator:** Peer-reviewed article.

R6 Graham, Y, Earl-Sinha, C, Parkin, L, Callejas-Diaz, L, Fox, A Tierney, C Mahawar, K and Hayes, C (2020) *Evaluating a potential role for community pharmacists in post-bariatric patient nutritional support*. Clinical Obesity. ISSN 1758-8111 **Quality indicator:** Peer-reviewed article.

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Details of the impact (indicative maximum 750 words)

Context

Bariatric surgery is a widely used intervention; over 1.8m surgeries were performed between 2008-16 worldwide, and annual numbers show a steep upward trend. Bariatric surgical research and practice typically focus on clinical outcomes such as weight loss and disease improvement, overlooking the impact of non-clinical factors on patients' lives after surgery. As one bariatric surgeon says, "We as physicians and surgeons are very focussed on the medical changes to our patients after bariatric surgery [...] and seldom stop to analyse and reflect on the impact of the social aspects" [S1]. There is an implicit assumption that as weight is lost, patients feel better and everything in their lives falls into place [S2]. Graham's

work for the first time brought patients' perspectives and the effects of surgery on their everyday lives firmly into multi-disciplinary bariatric care.

Impact

Graham's research was undertaken in collaboration with clinicians and has been disseminated globally through articles in journals and professional publications, academic and practitioner conferences and patient events. Its impact extends from improved professional understanding to improved patient health and wellbeing after bariatric surgery (see diagram for overview). The eight clinicians who provide testimonials for this case study estimate that, since 2016, 555 bariatric surgeons, nurses, pharmacists, psychologists and nutritionists in the UK, Mexico and India have changed how they work as a result of

Graham's work [see breakdown in **Section 5**]. This includes clinicians based in Sunderland, which has one of the busiest bariatric units in the UK, and Tijuana, where 12,000 surgeries are carried out on patients from Mexico, the USA and Canada per year. They estimate that 2,550 of their patients have benefited from this research [see breakdown in **Section 5**]. Extrapolating from a median of 200 patients per clinician, approximately 111,000 patients around the world have benefitted.

Graham is embedded in the bariatric surgical communities in the UK, India and Latin America, and these impacts result from purposeful engagement with patients and clinicians before, during and after the research.



Professional knowledge has been enhanced

Bariatric surgical clinicians have a new understanding of the social aspects of bariatric surgery and their huge importance to patients. Practitioners across the care pathway report increased awareness [S3, S1, S2, S4, S5, S6, S7]. One bariatric surgeon in England describes the research's *"phenomenal impact on our understanding of the importance of taking the non-clinical aspects of bariatric surgery into our professional practice"* [S4]. A bariatric nurse in England recognises that she didn't realise how social factors affect patients, and that she *"was unaware of how important to the patients this was."* As a result of Graham's research, she says *"I better understand what patients think about in everyday life, and that even the smallest things which most people take for granted [...] are much more complex and fraught with risk than I thought"* [S2]. Clinicians report improvements in their own practice from this knowledge, being able to *"prepare patients for the changes that surgery brings, thereby increasing their quality of life, and giving them knowledge and confidence to deal with situations new to them"*. Graham's research also identified the need for pharmacists on multidisciplinary teams. As one patient advocate explains, Graham's research clearly illustrates that *"the information and support provided by a pharmacist, given the changes to medication and lifelong vitamin supplementation, is crucial"* [S5].

Practice has improved

Bariatric surgical clinicians around the world have used Graham's research to transform their pre- and post-surgical practice [S3, S1, S2, S4, S5, S6, S7]. A surgeon in Mexico says *"Graham's work has challenged and indeed changed the way that surgeons think, and has been done in a way that has motivated surgeons like myself to apply her work in our practice and patient care"* [S1]. For the first time, they have revised protocols for discussions with patients to include the social aspects of bariatric surgery in pre- and post-operative consultations. Consultations now cover topics such as how eating in the home and restaurants will be affected and whether they will tell others that they've had bariatric surgery, and prepare them to receive and manage negative judgments from others against

this method of weight loss. He estimates that 1,000 of his patients, living in Mexico, the USA and Canada, have benefited from this change. A surgeon in India says the research has *“profoundly influenced the types of conversations I have with my patients”*, confirming that they now discuss non-clinical aspects of surgery *“not as a social conversation, but as part of the pre- and post-surgical consultations and follow up.”* [S7]. Another new inclusion in discussions is contraception [S2, S8, S4, S6]. A UK surgeon describes the change: *“we now provide patients with information on contraception and suitable methods before and after surgery. We have also changed practice so that this is discussed in more detail, and patients are signposted to appropriate contraceptive services as appropriate”* [S4]. This enhanced awareness has driven expansion of multidisciplinary teams. In 2015 City Hospitals Sunderland, home to one of the UK’s busiest bariatric units with between 400 and 600 surgeries per year, added a pharmacy role into the team, delivering pre-operative assessment, peri-operative monitoring, and support for community nurses and GPs. It has since created a second post to manage demand for pharmacist input [S4].

Patient care has improved

Clinicians attest that these changes improve patient care; as one surgeon said, *“Graham’s research has positively influenced the UK bariatric surgical community’s approach to patients and many clinical counters are more patient-focused”* [S9]. This shift towards patient-centred care has been acknowledged by other clinicians beyond the UK [S3, S7]. Graham’s risk adjustment categories are used to tailor consultations to patients’ needs. A Bariatric Surgeon in Mexico says *“This helps us to understand how they may deal with the changes after surgery, and has led to more open and honest discussions with patients, which has resulted in improved care... [which has]... improved the lives of patients and helped them adjust to life after surgery”* [S3]. Some clinicians have established support groups for patients in response to the research findings [S2].

Patients’ health and wellbeing has improved

Patients report improvements in physical and mental health and wellbeing as a result of these improvements. One says that clinicians’ greater appreciation for patients’ needs has given her *“the right support to change, accept and understand what works to sustain a healthier and happier life”* [S10], and another says that the research *“has educated me regarding bariatric surgery, which in turn has impacted my wellbeing, physical and mental health.”* Better pre-operative care means that patients *“feel more confident about being open about the surgery”* and empowered to be *“honest and [tell] people from day one.”* [S10] Improved post-operative care, and access to support groups have reduced patient isolation and increased their understanding and appreciation of themselves as individuals. One patient says that the research *“made me realise I’m not alone, definitely eating better again and having more confidence as well.”* [S10]

Patients’ voices are heard, and their needs and experiences recognised

Conducting qualitative research with patients means that patients’ voices about the social aspects of bariatric surgery are now being heard, with positive effects on their wellbeing. Patients say that it makes them *“feel valued and listened to”*; others highlight the importance of this representation, saying *“It’s important to have someone to be a voice for those who have had or are considering bariatric surgery,”* because *“bariatric patients often feel alienated and uninvolved”* [S10]. Clinicians agree that these issues are *“often underestimated aspects of bariatric surgery”* [S1]. By foregrounding patients’ views, Graham’s work *“‘legitimised’ many issues that patients experience, and find difficult to speak about”* [S11]. A patient advocate says that many people *“assume that weight loss is the main outcome of surgery. Talk to any patient and you will see that quality of life issues and matters that go beyond weight are important to us. [This] research incorporates the patient voice [...] so clinicians and others gain a more comprehensive understanding of bariatric surgery from the patient perspective”* [S5]. The result is a change in the dynamics of doctor-patient relationships. Patients are empowered to be open about their experiences; as one surgeon says, *“patients are more open in their conversations with me, which helps me to support them not only medically, but in a more holistic, patient-centred approach”* [S4].

Stigmas are being confronted

Graham's research challenges stigmas around surgery as a weight loss method, and has supported patients in overcoming discrimination. One patient says, "*society sees surgery as the 'easy' option for obese people,*" and that this research has built the foundations for changing narratives around bariatric surgery to recognise that "*the operation is only a 'tool', the operation is predominantly for most patients the 'easy' bit.*" Another says "*the research is important as it is helping both bariatric patients and the general public understand why the surgery is so important and it's usually last resort for most patients.*" This has tangible benefits; as one patient says, the research "*has helped me and many others who have had surgery overcome the social discrimination we can feel*" [S10].

5. Sources to corroborate the impact (indicative maximum of ten references)

Source	Patients benefitting	No. other clinicians known to have changed practice
S1 Written testimonial: Endocrine and Bariatric Surgeon, Mexico	200	-
S2 Written testimonial: Specialist Bariatric Nurse, England	500	15
S3 Written testimonial: Bariatric Surgeon, Mexico	1000	13
S4 Written testimonial: Consultant Surgeon, England	200	300
S5 Written testimonial: Nurse and Patient Advocate, England		
S6 Written testimonial: Consultant Chemical Pathologist, England	100	4
S7 Written testimonial: Bariatric Surgeon, India	200	200
S8 Written testimonial: Bariatric Surgeon, Mexico	150	23
S9 Written testimonial: Consultant Bariatric Surgeon and Secretary of the British Obesity and Metabolic Surgery Society, England.	200	-
S10 Survey of bariatric surgery patients in the UK		
S11 Written testimonial: Executive Director, European Coalition for People Living with Obesity (ECPO)		