

Review

Open Access



A systematic scoping review of multidisciplinary teamworking in surgical services: the need for bariatric surgery research

Danielle Wigg^{1,2}, Mary O'Kane³, Nese Targen⁴, Sally Abbott^{5,6}

¹Department of Bariatric Surgery, Southmead Hospital, North Bristol NHS Trust, Bristol BS10 5NB, UK.

²Department of Life Sciences, University of Bath, Bath BA2 7AY, UK.

³Dietetic Department, Leeds Teaching Hospitals NHS Trust, Leeds LS9 7TF, UK.

⁴Department of Bariatric Surgery, Chelsea and Westminster Hospital NHS Foundation Trust, London SW10 9NH, UK.

⁵Department of Bariatric Surgery, University Hospitals Coventry and Warwickshire NHS Trust, Coventry CV2 2DX, UK.

⁶Research Centre for Healthcare and Communities, Coventry University, Coventry CV1 5RW, UK.

Correspondence to: Dr. Sally Abbott, Research Centre for Healthcare and Communities, Coventry University, Richard Crossman Building, Coventry CV1 5RW, UK. E-mail: ac8926@coventry.ac.uk

How to cite this article: Wigg D, O'Kane M, Targen N, Abbott S. A systematic scoping review of multidisciplinary teamworking in surgical services: the need for bariatric surgery research. *Metab Target Organ Damage*. 2025;5:25. <https://dx.doi.org/10.20517/mtod.2024.100>

Received: 22 Oct 2024 **First Decision:** 1 Apr 2025 **Revised:** 22 Apr 2025 **Accepted:** 8 May 2025 **Published:** 19 May 2025

Academic Editor: Haoyong Yu **Copy Editor:** Ting-Ting Hu **Production Editor:** Ting-Ting Hu

Abstract

This review aims to identify and map the extent and nature of published research investigating multidisciplinary teamworking in surgical services and evaluate the relevance of the evidence base to bariatric surgery. A systematic search of CINAHL, Embase, and Scopus databases was conducted from inception to June 2022, focusing on observational studies that examined multidisciplinary teamworking in surgical services. Data were synthesized narratively. Of the 483 articles screened, eight studies met the inclusion criteria. Most studies focused on oncology teams ($n = 4$), were conducted in the context of multidisciplinary team (MDT) meetings ($n = 4$), and employed quantitative methodologies ($n = 5$). Sample sizes for qualitative studies ranged from 11 to 88 participants, while quantitative studies involved 47 to 1,636 participants; where patient cases were the unit of analysis instead, sample sizes ranged from 50 to 298 cases. The composition of professional groups varied across studies, though all included nurses. Despite the widespread recommendation and adoption of multidisciplinary teamworking in surgical care, only eight relevant studies were identified, and none addressed bariatric surgery specifically. These findings highlight a significant gap and underscore the need for further research on multidisciplinary teamworking in surgical services, particularly in the field of bariatric surgery.

Keywords: Multidisciplinary teams, bariatric surgery, teamworking



© The Author(s) 2025. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, sharing, adaptation, distribution and reproduction in any medium or format, for any purpose, even commercially, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.



INTRODUCTION

A multidisciplinary team (MDT) comprises individuals from various disciplines who collaborate to achieve a common goal^[1]. There is no established definition for the composition of a healthcare MDT; instead, each team requires input from a range of staff who bring complementary experience and attributes^[2]. Multidisciplinary teamworking is a collaborative approach that is widely practiced in healthcare settings. Its core purpose is to provide comprehensive, holistic patient care. Effective teamworking within MDTs is crucial to ensure high-quality patient care and enhance patient safety^[3].

According to the Royal College of Surgeons of England^[4], effective teamwork in surgical care relies on several key attributes that reflect team culture and drive high performance. These attributes include: (a) team members having a clear understanding of their own and other members' roles, responsibilities, norms, and values, along with a shared commitment to delivering high-quality patient care; (b) shared leadership that provides guidance and maintains clear direction in critical situations; (c) effective communication and task coordination; and (d) a safe interpersonal climate characterized by mutual trust and respect. Multidisciplinary collaboration in surgical teams has been a subject of research, as teamworking is known to influence the quality and efficiency of surgical procedures^[5]. Studies have shown that the lack of effective teamwork behaviors is associated with higher incidences of complications and mortality^[6,7].

Bariatric surgery is a surgical specialty that requires an MDT approach, as emphasized in international guidelines^[8,9]. Professional societies in bariatric surgery recognize the importance of involving multidisciplinary healthcare professionals. The British Obesity and Metabolic Surgery Society (BOMSS), the American Society for Metabolic and Bariatric Surgery (ASMBS), and the International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO) all have integrated health seats with voting rights on their executive boards.

The primary role of the bariatric surgery MDT is to assess and optimize patients prior to surgery and to provide long-term postoperative support for weight management and the management of metabolic disturbances and malnutrition associated with bariatric surgery^[10]. Bariatric surgery is an effective treatment for obesity. Data from the By-Band-Sleeve trial^[11] demonstrate that Roux-en-Y gastric bypass results in greater total weight loss (26.8%), more substantial reductions in comorbidities, and improved quality of life at three years compared with sleeve gastrectomy and gastric band procedures. In addition to the type of surgical procedure, other factors also affect outcomes. Patients often need additional support to address problematic eating behaviors and patterns that can contribute to weight regain^[12]. For instance, King *et al.* reported that 5 years after reaching their weight nadir following Roux-en-Y gastric bypass, 50.2% of patients had regained 15% or more of their maximum weight loss, and 86.5% had regained at least 10%^[13]. This weight regain negatively impacted both physical health and satisfaction with the surgery.

Hence, a multidisciplinary approach is essential postoperatively to enhance outcomes and to prevent, detect, and manage complications^[14]. The core members of the bariatric surgery MDT typically include surgeons, dietitians, and psychologists^[15], and may also involve anaesthetists, medical physicians, nurse specialists, or pharmacists^[10]. The NICE NG246 Guideline^[16] highlights the benefits of a comprehensive MDT, particularly the inclusion of dietitians and psychologists, in supporting patients undergoing bariatric surgery.

Despite the recognized importance of MDT working, there is a paucity of research into its effectiveness in bariatric surgery. One study found that the implementation of routine MDT meetings significantly reduced the rate of major complications following bariatric surgery^[17]. Another study reported that MDT discussions

resulted in conflicting opinions about surgery suitability from at least one MDT professional in nearly half of the patients (45%)^[18], highlighting the complexity of decision making in bariatric surgery and the need for an MDT.

While systematic reviews have explored multidisciplinary teamworking broadly within healthcare^[19-21], the scale and scope of research specifically addressing teamworking within surgical services, including bariatric surgery, remain unclear. This scoping review aimed to identify and map the extent and nature of existing research on multidisciplinary teamworking in surgical settings and evaluate the relevance of the evidence base to bariatric surgery.

METHODS

This review was conducted in line with the established methodological framework for scoping reviews developed by Arksey and O'Malley^[22]. The process involved the following steps: (1) identifying the research question; (2) identifying relevant studies; (3) selecting studies; (4) charting the data; and (5) collating, summarizing, and reporting the results. We report our scoping review following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Scoping Reviews (PRISMA-ScR) guidelines^[23].

Literature search

We searched three databases: Embase (from inception in 1974), CINAHL (from inception in 1981), and Scopus (from inception in 1966). The search covered literature from inception to June 6, 2022. The search terms used were: (surgical OR surgery) AND (teamwork) AND (MDT OR “multi-disciplinary team” OR “multidisciplinary team” OR “interprofessional team” OR “inter-professional team” OR “interdisciplinary team” OR “inter-disciplinary team”). All references retrieved from the databases were imported into EndNote for de-duplication.

Study screening and data extraction

We included studies of any design that investigated multidisciplinary teamworking in surgery, based on predefined inclusion and exclusion criteria using the PEOS framework [Supplementary Materials]. Two reviewers independently screened titles and abstracts, followed by full-text articles, in duplicate. Reviewers were blinded to each other's decisions until each screening stage was completed. Any disagreements were resolved through consensus between reviewers. Data on the characteristics of each included study were extracted by one reviewer using an electronic data extraction form and then peer reviewed by another. As Arksey and O'Malley^[22] note, the purpose of a scoping review may be to map the extent and nature of research activity rather than to describe research findings; therefore, we did not extract outcome data for this review.

Data synthesis

A narrative synthesis approach was used to summarize and integrate the characteristics of the included studies.

RESULTS

Study selection

The study selection process is shown in Figure 1. Our search yielded 483 records, of which 32 were potentially eligible based on title and abstract screening. The primary reason for exclusion at the full-text review stage was that the publication was a conference proceeding ($n = 12$). Ultimately, eight studies met the inclusion criteria and were included in the review^[24-31].

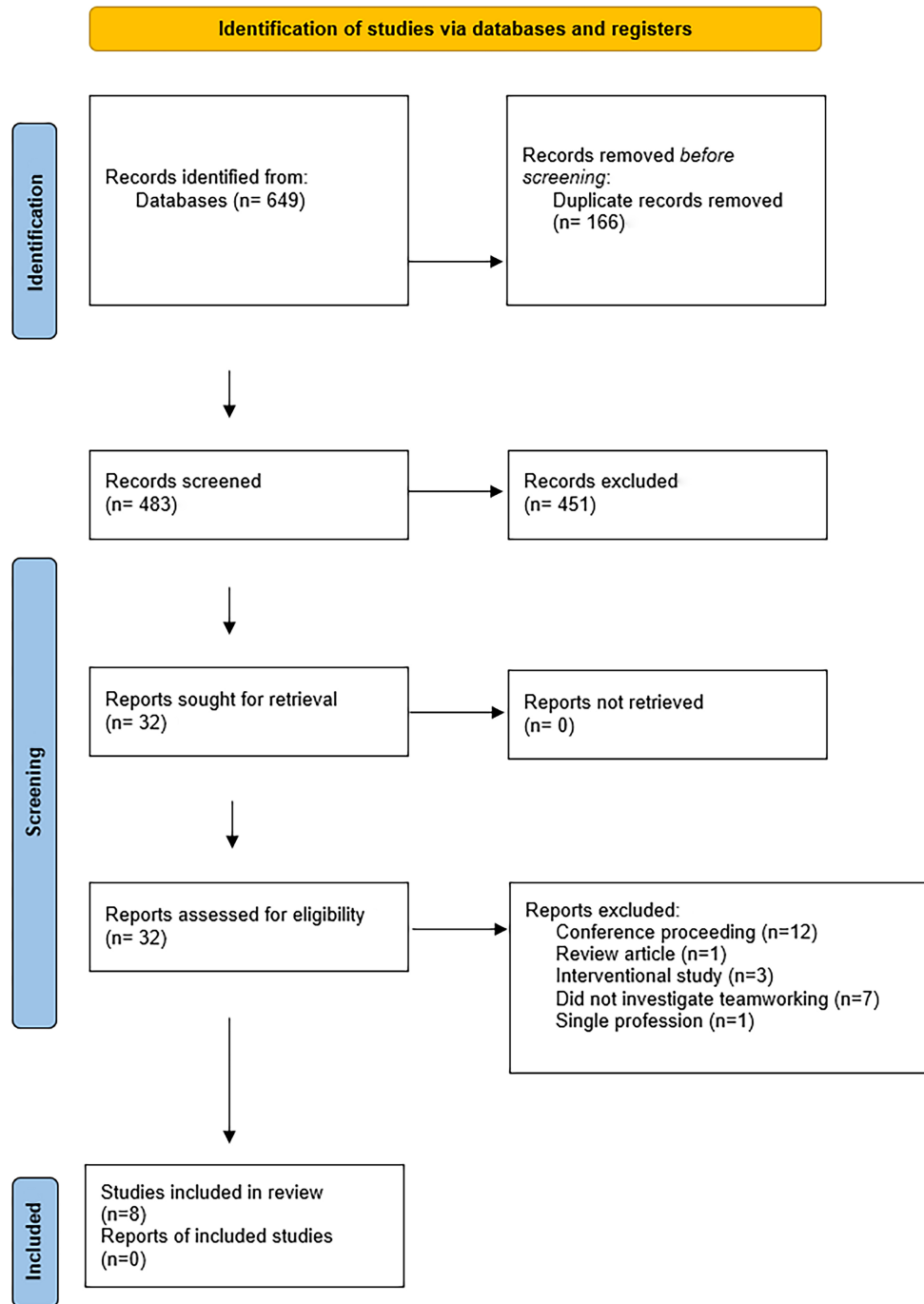


Figure 1. PRISMA flowchart.

Study characteristics

The included studies were published between 2006 and 2020. Most were conducted in the United Kingdom ($n = 5$), with the remainder from Scandinavia ($n = 2$) and the United States ($n = 1$). The most commonly studied surgical specialty was oncology ($n = 4$). Multidisciplinary teamworking was evaluated in various settings: MDT meetings ($n = 4$), operating theatres ($n = 3$), and hospital wards ($n = 1$). Data collection methods included quantitative approaches such as surveys ($n = 4$) and direct observation ($n = 1$), and

qualitative approaches such as interviews ($n = 1$), focus groups ($n = 1$), and direct observation ($n = 1$). The study characteristics, including the aims of each study, are summarized in [Table 1](#).

Participant characteristics

Sample sizes in qualitative studies ranged from 11 to 88 participants. In quantitative studies, sample sizes ranged from 47 to 1,636 MDT participants; where patient cases were the unit of analysis, sample sizes ranged from 50 to 298 cases. The professional groups represented varied across studies. All studies included nurses ($n = 8$), most included oncologists ($n = 6$), and several involved surgeons ($n = 5$), radiologists ($n = 3$), pathologists ($n = 3$), MDT coordinators ($n = 3$), anesthetists ($n = 1$), and Allied Health Professionals (AHPs) ($n = 1$) [[Table 2](#)].

DISCUSSION

This scoping review highlights the limited research on teamworking within surgical MDTs, with only eight studies meeting the inclusion criteria. These studies were heterogeneous in their aims, methods, settings, and surgical specialties, although most were conducted in oncology. Notably, none of the studies focused on bariatric surgery MDTs, and none were longitudinal in design. As such, the findings are not transferable to the context of teamworking in bariatric surgery, given differences in study settings, the composition of multidisciplinary professionals, and patient populations.

One study explored multidisciplinary teamworking within a single surgical ward setting^[24]. While bariatric surgery patients do require inpatient care during recovery, the bariatric MDT is typically not confined to a single ward, and much of their care is delivered on an outpatient basis. Two studies examined multidisciplinary teamworking in the operating theatre environment^[25,30]. However, since many members of a bariatric MDT - such as dietitians, psychologists, medical physicians, and pharmacists - are generally not present in the theatre, the findings from these studies do not apply to multidisciplinary teamworking in bariatric surgery.

The three studies by Lamb *et al.* that examined teamwork within oncology MDTs may have some transferability to bariatric surgery, as they examined MDT working in the context of MDT meetings^[26-28]. MDT meetings are a widely adopted platform for teamwork in the management of patients pre- and post-bariatric surgery^[17,18]. Similarly, the study by Strong *et al.* also explored teamworking within oncology MDT meetings^[29]. However, its primary focus was on how team dynamics influenced recruitment into clinical trials. As a result, this research included perspectives from research staff outside the core clinical MDT, such as research nurses and clinical trial coordinators, which may have influenced the overall dynamics of clinical MDT teamworking.

Despite these parallels, oncology and bariatric surgery operate within distinctly different clinical paradigms. While surgical resection is the mainstay treatment for surgical oncology patients, patients who present for bariatric surgery rarely have short-term life-threatening complications and, therefore, the decision to offer surgery requires a more considered decisional balance of risks versus benefits^[10]. Moreover, given the multifactorial nature of obesity^[32,33], patients presenting for bariatric surgery frequently have complex social and medical issues that a surgeon alone may not be equipped to manage, thus necessitating a multidisciplinary approach^[18]. Patients being considered for surgery must have a comprehensive assessment of physical health, along with specialist assessments of nutritional status and psychological needs^[16]. Additionally, bariatric surgery is not a definitive treatment for obesity, and lifelong follow-up care is recommended. Patients often need ongoing support from a range of healthcare professionals to sustain long-term weight management and to address potential metabolic disturbances and malnutrition associated

Table 1. Study characteristics

Study	Country	Centers		Surgical specialty	Setting of interest	Methodology	Method	Study aim (s)
		Single or multi	Sites, n =					
Ballangrud 2020 ^[24]	Norway	Single	1	Gastrointestinal; urology	Ward	Qualitative	Focus group	To describe HCPs' experiences of teamwork
Görs 2017 ^[25]	Sweden	Multi	3	General surgery; gynecology; orthopedic; neurosurgery; plastics; maxillofacial	Theatre	Quantitative	Survey	To describe and compare attitudes to patient safety among HCPs in surgical teams
Lamb 2011 ^[26]	UK	Multi	5	Oncology	MDT meeting	Quantitative	Survey	To assess MDT members' contribution to decision making To assess MDT members' insight into team performance
Lamb 2012 (a) ^[28]	UK	Single	1	Oncology	MDT meeting	Quantitative	Direct observation	To assess MDT members' contribution and team size on the ability to reach clinical decisions
Lamb 2012 (b) ^[27]	UK	Multi	NR	Oncology	MDT meeting	Quantitative	Survey	To explore the views of MDT members regarding contribution to the MDT, representation of patients' views, and dealing with disagreements in MDT meetings
Strong 2016 ^[29]	UK	Multi	3	Oncology	MDT meeting	Qualitative	Interview	To explore the importance of teamwork in recruitment to a multicentre study in surgical oncology
Undre 2006 ^[30]	UK	Single	1	General surgery	Theatre	Quantitative	Survey	To develop a practical method of assessing teamwork in the theatre that can capture the most important behavioural dimensions of surgical teamwork and task completion
Brommelsiek 2020 ^[31]	USA	Single	1	General surgery	Theatre	Qualitative	Direct observation	To examine the effect of attending surgeon persona on surgical team action

NR: Not reported; HCP: healthcare professional; MDT: multidisciplinary team.

with bariatric surgery^[10]. Effective treatment plans also require intensive psychosocial and nutritional care to minimize risks and optimize patient outcomes^[34-37]. As obesity is a chronic disease, recurrent weight gain after bariatric surgery may occur^[13].

In oncology, the multi-professional nature of MDTs has also been shown to facilitate comprehensive follow-up and close monitoring of long-term side effects^[38]. It is reasonable to suggest that MDTs in obesity surgery may confer similar benefits, including improved patient outcomes, enhanced decision making, and more consistent delivery of evidence-based care. However, MDTs for oncology and bariatric surgery have markedly different team structures, with dietitians and psychologists playing a key role in obesity management^[38,39]. Hence, it is arguable that findings from the existing literature on surgical MDT working are not transferable to the specific context of bariatric surgery.

In the UK, there is a wide acceptance that MDTs comprise a wide range of professionals. A “good team” needs an appropriate skill mix, which Nancarrow *et al.* define as: “the mix and breadth of staff, personalities, individual attributes, professions and experience^[2]. Teams value diversity and clearly need input from

Table 2. Participant characteristics

Study	Sample unit	Sample size, n =	MDT members, n =					
			Surgeon	Oncologist	Radiologist	Pathologist	Nurse	Others
Ballangrud 2020 ^[24]	Participant	11	0	4	0	0	4	Nursing assistant, 3
Görs 2017 ^[25]	Participant	541	0	184	0	0	357	N/A
Lamb 2011 ^[26]	Participant	47	11	3	5	2	16	MDT coordinator, 10
	Patient case	164	NR	NR	NR	NR	NR	NR
Lamb 2012 (a) ^[28]	Patient case	298	^a	^a	^a	^a	^a	MDT coordinator, ^a
Lamb 2012 (b) ^[27]	Participant	1,636	0	875			^a	MDT coordinator, 260 AHP, ^a
Strong 2016 ^[29]	Participant	21	8	5	0	0	6	Research fellow, 1 Trial coordinator, 1
Undre 2006 ^[30]	Patient case	50	^a	0	0	0	^a	N/A
Brommelsiek 2020 ^[31]	Participant	88	10	0	0	0	20	Resident physicians, 14 Medical students, 6 Scrub techs, 12 Anesthesiologist and certified nurse anesthetist, 10 CRNA students ^a Technical personnel that include radiology technicians, vascular technicians, and company representatives, 7

^aprofessional group was represented, but the number was not reported. NR: Not reported; MDT: multidisciplinary team; AHP: allied health professional.

a range of staff who bring complementary experience and attributes to the team”. Surprisingly, only three studies included surgeons, missing a key perspective within a surgical MDT, while all studies included nursing participants. Only one study included AHPs, and the specific professional registrations of these AHP respondents were not reported. Given that dietitians and psychologists are core members of the bariatric surgery MDT, their perspectives on teamworking are highly important, yet were not captured in the included studies.

This scoping review has several methodological strengths. Three medical databases were searched, all articles were screened by two reviewers, and data extraction was peer-reviewed. However, only English-language studies were included and therefore there may be a language bias. An inherent limitation of scoping review methodology is its emphasis on breadth rather than depth of information on a particular topic. Nonetheless, this method was appropriate, as our objective was to map the extent and nature of research activity^[22], rather than to describe research findings. Furthermore, the heterogeneity in the methods, study settings, and clinical specialties of the included studies would have precluded a meaningful synthesis of study findings.

The role of MDT in assessing, preparing, and supporting patients undergoing bariatric surgery is internationally recognized^[9,40-42]. Therefore, the absence of research exploring multidisciplinary teamworking in the context of bariatric surgery is surprising and highlights the need for investigation in this area. This scoping review offers valuable insight into how multidisciplinary teamworking has been researched in other surgical specialties and settings, which can inform the design of future primary studies through the lens of bariatric surgery. It also highlights the promising feasibility of recruiting various professional groups within surgical teams for either a quantitative or qualitative methodological study. Future research investigating

MDT working in bariatric surgery should explore its impact on postoperative complications and patient-reported outcomes, such as quality of life.

CONCLUSION

This scoping review has mapped the extent and nature of published research examining multidisciplinary teamworking in surgical specialties. Although the MDT approach is widely recommended and adopted in surgical patient care, only eight relevant studies were identified in this scoping review. Notably, there is no research within the specialty of bariatric surgery, underscoring a clear need for research in this context.

DECLARATIONS

Authors' contributions

Contributed to the conceptualization of the study: Wigg D, O'Kane M, Targen N, Abbott S

Performed the database searches and duplicate screening: Abbott S

Contributed to the screening, data extraction, and synthesis of studies: Wigg D, O'Kane M, Targen N, Abbott S

Contributed to writing the original draft: Abbott S, O'Kane M

Contributed to reviewing and editing the final manuscript: Wigg D, O'Kane M, Targen N, Abbott S

Availability of data and materials

Not applicable.

Financial support and sponsorship

None.

Conflicts of interest

All authors declared that there are no conflicts of interest.

Ethical approval and consent to participate

Not applicable.

Consent for publication

Not applicable.

Copyright

© The Author(s) 2025.

REFERENCES

1. Health Education England. Working differently together: progressing a one workforce approach. Multidisciplinary Team Toolkit. Available from: https://www.hee.nhs.uk/sites/default/files/documents/HEE_MDT_Toolkit_V1.1.pdf. [Last accessed on 13 May 2025].
2. Nancarrow SA, Booth A, Ariss S, Smith T, Enderby P, Roots A. Ten principles of good interdisciplinary team work. *Hum Resour Health*. 2013;11:19. DOI PubMed PMC
3. Rosen MA, DiazGranados D, Dietz AS, et al. Teamwork in healthcare: key discoveries enabling safer, high-quality care. *Am Psychol*. 2018;73:433-50. DOI PubMed PMC
4. Royal College of Surgeons of England. High performing surgical team: a guide to best practice. Available from: <https://www.rcseng.ac.uk/standards-and-research/standards-and-guidance/good-practice-guides/hpst/>. [Last accessed on 13 May 2025].
5. Tørring B, Gittell JH, Laursen M, Rasmussen BS, Sørensen EE. Communication and relationship dynamics in surgical teams in the operating room: an ethnographic study. *BMC Health Serv Res*. 2019;19:528. DOI PubMed PMC
6. Mazzocco K, Petitti DB, Fong KT, et al. Surgical team behaviors and patient outcomes. *Am J Surg*. 2009;197:678-85. DOI PubMed
7. Johnston MJ, Arora S, King D, et al. A systematic review to identify the factors that affect failure to rescue and escalation of care in surgery. *Surgery*. 2015;157:752-63. DOI PubMed

8. Mechanick JL, Apovian C, Brethauer S, et al. Clinical practice guidelines for the perioperative nutrition, metabolic, and nonsurgical support of patients undergoing bariatric procedures - 2019 update: cosponsored by american association of clinical endocrinologists/ american college of endocrinology, the obesity society, american society for metabolic & bariatric surgery, obesity medicine association, and american society of anesthesiologists - executive summary. *Endocr Pract*. 2019;25:1346-59. DOI PubMed
9. Eisenberg D, Shikora SA, Aarts E, et al. Publisher correction: 2022 American Society of Metabolic and Bariatric Surgery (ASMBS) and International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO) indications for metabolic and bariatric surgery. *Obes Surg*. 2023;33:15-6. DOI PubMed PMC
10. Khan O, Bano G, Reddy M. The structure and role of the multidisciplinary team in bariatric surgery. In: Agrawal S, Editor. Obesity, bariatric and metabolic surgery. Springer International Publishing, 2016. DOI
11. Collaborative Group. Roux-en-Y gastric bypass, adjustable gastric banding, or sleeve gastrectomy for severe obesity (By-Band-Sleeve): a multicentre, open label, three-group, randomised controlled trial. *Lancet Diabetes Endocrinol*. 2025;13:410-26. DOI PubMed
12. Mitchell JE, Christian NJ, Flum DR, et al. Postoperative behavioral variables and weight change 3 years after bariatric surgery. *JAMA Surg*. 2016;151:752-7. DOI PubMed PMC
13. King WC, Hinerman AS, Belle SH, Wahed AS, Courcoulas AP. Comparison of the performance of common measures of weight regain after bariatric surgery for association with clinical outcomes. *JAMA*. 2018;320:1560-9. DOI PubMed PMC
14. Thompson R, Farrell TM. Importance of a multidisciplinary approach for bariatric surgery. In: Patti MG, Schlottmann F, Di Corpo M, Editors. Foregut surgery: achalasia, gastroesophageal reflux disease and obesity. Springer; 2020. pp. 227-35. DOI
15. Yang W, Abbott S, Borg CM, et al. Global variations in preoperative practices concerning patients seeking primary bariatric and metabolic surgery (PACT Study): a survey of 634 bariatric healthcare professionals. *Int J Obes*. 2022;46:1341-50. DOI PubMed
16. National Institute for Health and Care Excellence. Overweight and obesity management. Available from: <https://www.nice.org.uk/guidance/ng246>. [Last accessed on 13 May 2025].
17. Rebibo L, Maréchal V, De Lameth I, et al. Compliance with a multidisciplinary team meeting's decision prior to bariatric surgery protects against major postoperative complications. *Surg Obes Relat Dis*. 2017;13:1537-43. DOI PubMed
18. Bullen NL, Parmar J, Gilbert J, Clarke M, Cota A, Finlay IG. How effective is the multidisciplinary team approach in bariatric surgery? *Obes Surg*. 2019;29:3232-8. DOI PubMed
19. Schmutz J, Manser T. Do team processes really have an effect on clinical performance? *Br J Anaesth*. 2013;110:529-44. DOI PubMed
20. Schmutz JB, Meier LL, Manser T. How effective is teamwork really? *BMJ Open*. 2019;9:e028280. DOI PubMed PMC
21. Schot E, Tummers L, Noordegraaf M. Working on working together. A systematic review on how healthcare professionals contribute to interprofessional collaboration. *J Interprof Care*. 2020;34:332-42. DOI PubMed
22. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *Int J Soc Res Methodol*. 2005;8:19-32. DOI
23. Tricco AC, Lillie E, Zarin W, et al. PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Ann Intern Med*. 2018;169:467-73. DOI PubMed
24. Ballangrud R, Aase K, Vifladt A. Longitudinal team training programme in a Norwegian surgical ward: a qualitative study of nurses' and physicians' experiences with teamwork skills. *BMJ Open*. 2020;10:e035432. DOI PubMed PMC
25. Göras C, Unbeck M, Nilsson U, Ehrenberg A. Interprofessional team assessments of the patient safety climate in Swedish operating rooms: a cross-sectional survey. *BMJ Open*. 2017;7:e015607. DOI PubMed PMC
26. Lamb BW, Sevdalis N, Mostafid H, Vincent C, Green JS. Quality improvement in multidisciplinary cancer teams: an investigation of teamwork and clinical decision-making and cross-validation of assessments. *Ann Surg Oncol*. 2011;18:3535-43. DOI PubMed
27. Lamb BW, Taylor C, Lamb JN, et al. Facilitators and barriers to teamworking and patient centeredness in multidisciplinary cancer teams: findings of a national study. *Ann Surg Oncol*. 2013;20:1408-16. DOI PubMed
28. Lamb BW, Sevdalis N, Benn J, Vincent C, Green JS. Multidisciplinary cancer team meeting structure and treatment decisions: a prospective correlational study. *Ann Surg Oncol*. 2013;20:715-22. DOI PubMed
29. Strong S, Paramasivan S, Mills N, Wilson C, Donovan JL, Blazeby JM. 'The trial is owned by the team, not by an individual': a qualitative study exploring the role of teamwork in recruitment to randomised controlled trials in surgical oncology. *Trials*. 2016;17:212. DOI PubMed PMC
30. Undre S, Healey AN, Darzi A, Vincent CA. Observational assessment of surgical teamwork: a feasibility study. *World J Surg*. 2006;30:1774-83. DOI PubMed
31. Brommelsiek M, Kanter SL, Sutkin G. An ethnographic study examining attending surgeon persona in the operating room and influence on interprofessional team action. *J Interprof Educ Pract*. 2020;20:100359. DOI
32. Blüher M. Obesity: global epidemiology and pathogenesis. *Nat Rev Endocrinol*. 2019;15:288-98. DOI PubMed
33. The Government Office for Science. The foresight report. Reducing obesity: future choices. Available from: <https://www.gov.uk/government/publications/reducing-obesity-future-choices>. [Last accessed on 13 May 2025].
34. David LA, Sijercic I, Cassin SE. Preoperative and post-operative psychosocial interventions for bariatric surgery patients: a systematic review. *Obes Rev*. 2020;21:e12926. DOI PubMed
35. Parrott JM, Craggs-Dino L, Faria SL, O'Kane M. The optimal nutritional programme for bariatric and metabolic surgery. *Curr Obes Rep*. 2020;9:326-38. DOI PubMed
36. O'Kane M, Parretti HM, Pinkney J, et al. British Obesity and Metabolic Surgery Society Guidelines on perioperative and postoperative

- biochemical monitoring and micronutrient replacement for patients undergoing bariatric surgery-2020 update. *Obes Rev*. 2020;21:e13087. [DOI](#) [PubMed](#) [PMC](#)
37. Ogden J, Ratcliffe D, Snowdon-Carr V. British Obesity Metabolic Surgery Society endorsed guidelines for psychological support pre- and post-bariatric surgery. *Clin Obes*. 2019;9:e12339. [DOI](#) [PubMed](#)
 38. Taberna M, Gil Moncayo F, Jané-Salas E, et al. The multidisciplinary team (MDT) approach and quality of care. *Front Oncol*. 2020;10:85. [DOI](#) [PubMed](#) [PMC](#)
 39. Kaur V, Bowen L, Bano G, Reddy M, Khan O. Multidisciplinary team in bariatric surgery: structure and role. In: Agrawal S, Editor. *Obesity, bariatric and metabolic surgery*. Cham: Springer International Publishing; 2020. pp. 1-8. [DOI](#)
 40. Wharton S, Lau DCW, Vallis M, et al. Obesity in adults: a clinical practice guideline. *CMAJ*. 2020;192:E875-91. [DOI](#) [PubMed](#) [PMC](#)
 41. Breen C, O'Connell J, Geoghegan J, et al. Obesity in adults: a 2022 adapted clinical practice guideline for Ireland. *Obes Facts*. 2022;15:736-52. [DOI](#) [PubMed](#) [PMC](#)
 42. Busetto L, Dicker D, Azran C, et al. Practical recommendations of the obesity management task force of the European association for the study of obesity for the post-bariatric surgery medical management. *Obes Facts*. 2017;10:597-632. [DOI](#) [PubMed](#) [PMC](#)