Interprofessional obesity treatment: An exploration of current literature and practice

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ABSTRACT

Background: It is unclear which professions, their roles, competencies, and necessary training, maximize the effectiveness of interprofessional non-surgical obesity treatment teams.
Purpose: This exploratory exercise was to gain an understanding of current literature and practice regarding adult interprofessional obesity treatment team practice.
Methods: Synthesis of information from 87 articles and 9 websites identified through review of pertinent literature as well as qualitative analysis of transcripts from 15 one-on-one obesity treatment team member interviews.
Discussion: Teams vary in their make-up but most often include physicians, physician assistants, nurse practitioners, registered dietitian nutritionists, registered nurses, mental and behavioral health practitioners, and exercise specialists. The team leader sets the tone that can promote respectful exchange of opinions among team members. Decisions regarding which professions are represented on teams are driven by financial ability to support the provider’s work. Well-functioning interprofessional teams are rare, possibly due to insufficient opportunities for training with well-functioning interprofessional obesity teams. Learning from other team members is believed to improve the patient experience and provider satisfaction.
Conclusions: There are limited training opportunities for professionals to learn to function as members of obesity treatment teams. Few examples of well-functioning obesity treatment teams exist to act as role models and training sites. Some professions have competencies that could inform and develop profession-specific interprofessional training opportunities to prepare professionals to assume effective obesity treatment team roles. However, more work is needed to study how interprofessional obesity competencies and training, geared toward developing shared decision-making and shared goals, and could impact patient care and provider satisfaction. Furthermore, without adequate reimbursement for all the needed health professions to provide basic services to persons with obesity, expanding small programs will be an ongoing challenge.

1. Introduction

Obesity in the United States has reached epidemic proportions, significantly impacting the health and wellbeing of the American workforce as well as its economic productivity.1,2 With an estimated 42% of adults in the US diagnosed as obese, payers of care are asking what might be needed to reverse these high rates. There is strong support in the literature for taking an interprofessional approach to the treatment and management of obesity. The last author was asked to discuss the various roles and responsibilities of health professionals in treating obesity with an interprofessional group of health professions students. She assumed there would be a clear statement from a federal agency or professional group. She quickly learned, as indicated by Cochrane et al.,3 there is little agreement as to who makes up obesity treatment teams and how well coordinated the teams are with their patient care. Though Asselin et al.4 mapped the role of interdisciplinary collaboration and shed some light on obesity treatment team coordination and perceived provider roles, the researchers stopped short of describing what each discipline brings to the team in managing their patients’ care. The literature is similarly limited in its description of the

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training health professionals receive in preparation for work on obesity treatment teams. This scant evidence creates uncertainty as to how health professionals are being and should be trained to work interprofessionally to maximize the value of each team members' expertise. This prompted our efforts to gain a better understanding of adult obesity teams.

2. Background

Obesity treatment involves understanding and addressing the wide array of interacting factors that promote and perpetuate obesity. These range from basic nutrition and exercise issues to social, economic, genetic, and psychological factors that are further complicated by accompanying chronic diseases like diabetes and heart disease. Managing the multiple factors that are both causes, and outcomes of excess weight can be overwhelming for their teams. This is especially challenging given the lack of training most clinicians receive specific to their work in obesity treatment. Insufficient training includes a lack of exposure to professions outside of one's own that could provide a more comprehensive picture of the complexity of the disease and the wide array of challenges facing patients with obesity.

Given this multifactorial nature of obesity, it seems logical that interprofessional teams would more effectively address their patient's physical and emotional needs than could a single provider. Some evidence shows interprofessional work may also have a protective effect against burnout, which could prove beneficial to providers who express frustration related to the low success rates in treating obesity. Additionally, training interprofessionally may facilitate greater understanding of how individual health professionals fit into the wider health system through firsthand knowledge of the roles of the other professions and how they communicate as team members. The higher the team function, the more effective the communication and care coordination can be, and the better the care for the patient.

Many health care professions education and training programs utilize the Interprofessional Education Collaborative (IPEC) core competencies as the foundation for interprofessional pedagogy at pre-licensure and graduate training levels. The goal of the IPEC core competencies is to prepare future health care professionals to contribute to interprofessional collaborative teams. What is not known is to what degree interprofessional obesity treatment teams have been able to achieve a desired level of interprofessional collaboration required to provide high quality care to patients. Therefore, we sought to gain a better understanding of the interprofessional nature of non-surgical adult obesity treatment teams. Areas of exploration included who is and who should be included on obesity treatment teams, the role of each team member, profession-specific and interprofessional competencies, and how teams function interprofessionally.

3. Methods

We gathered information on obesity treatment from a profession-specific lens with an interprofessional approach by conducting a search of the past ten years of literature, reviewing a sample of non-academic adult obesity program websites, and interviewing members of obesity treatment teams referred to us as models. Electronic and manual searches of existing literature (i.e., database and website searches with review of pertinent, related, and cited sources) and semi-structured interviews were conducted.

3.1. Searches

Searches employing both structured database and manual searching techniques were used to gather literature (2010–2020) addressing which health professions contribute to the treatment of obesity, their profession-specific competencies, and the role each profession plays on adult obesity treatment teams. See Figs. 1–3 and Table 1 online supplemental material. The searches yielded a total of 577 titles from which 125 were deemed appropriate for full-text review. Of these, 87 were ultimately used to inform this topical review. Additionally, Google was used to identify the websites of 60 obesity programs not specifically noted as part of an academic health center, of which only 9 included information specifically identifying the professionals providing care as part of the obesity treatment team.

3.2. Interviews

Semi-structured interviews were conducted with a convenience sample of 15 adult obesity treatment and management team members referred to us from 7 distinct US facilities. Five health professions were represented (medicine, nursing, nutrition and dietetics, exercise specialists, and psychology). Participants were identified through referrals from members of two National Academies of Science, Engineering and Medicine1 forums (the Global Forum on Health Professions Education, and the Roundtable on Obesity Solutions), and the National Academies of Practice. The semi-structured interview guide and questions developed by the researchers focused on the four areas of interest for this study. Questions were tested in the first two interviews and adjusted as needed throughout subsequent interviews. One interviewer led each conversation through teleconferencing with support from one to three scribes (co-authors on this paper). Interviews were recorded and reviewed to clarify content as needed. Consent to participate and for recording was obtained verbally from each participant at the initiation of each session. IRB approval was obtained through East Carolina University (IRB #18–002509) and the University of Oklahoma Health Sciences Center (IRB #10949).

All 15 interviewees were currently working or had previously worked on obesity treatment teams. Those who no longer worked on a team or had changed positions indicated the decision was based primarily driven by an inability to financially support the work. All participants worked at clinics or centers in the United States located in either the South (10/15) or the Midwest (5/15). Two of the clinics had affiliations with universities.

4. Results and discussion

Findings from the review of existing literature were divided into three primary constructs. The first construct is a reflection on who is, or who should be, included on obesity treatment teams. The second construct describes the role individual professions play as part of an obesity treatment team. The third looks at obesity team preparedness and competencies. Four team-based findings were identified during synthesis of interview findings. Participant comments were consistent with findings in the literature.

4.1. Synthesis of literature

4.1.1. Obesity treatment team members

There is little discussion in the literature, 2010 to present, as to who makes up an obesity treatment team. Google searches of websites were limited in providing information on team make up with only 9 out of 60 obesity program websites providing details on the professionals engaged in their obesity treatment teams. Noted in the online supplemental materials, the professionals most frequently cited in the literature and websites include physicians, physician assistants, nurse practitioners, registered dietitian nutritionists, registered nurses, mental and behavioral health practitioners, and exercise specialists. Less often mentioned were therapeutic rehabilitation experts, oral health, and pharmacy. The actual professions comprising each of these areas can vary, particularly

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1 NASEM is the National Academies of Sciences, Engineering, and Medicine that is a distinct entity from the National Academies of Practice.
within the specialty domains of mental/behavioral health. These roles may be filled by a psychologist, psychiatrist, clinical social worker, behavioral counselor, or mental health counselor. For exercise, that might engage a kinesiologist, exercise physiologist, personal trainer, certified health fitness instructor, or exercise specialist. Less variability was found in medicine described as either an allopathic or osteopathic doctor and advanced practice providers, either a nurse practitioner or a physician assistant. Therapeutic rehabilitation could refer to either or both a physical or occupational therapist. For nursing, nutrition and dietetics, pharmacy, and oral health, the literature included one professional expert that would fill each position: a registered nurse, a registered dietitian nutritionist, a pharmacist, and a dentist, respectively. Other less well-defined team members were called nutrition experts, health counselors, and lifestyle coaches.

4.1.2. Team member roles

Knowing who is on the obesity treatment team is an essential first step in describing the roles and responsibilities of each team member. The 2006 Canadian clinical practice guidelines described assembling teams that match the needs of a given patient.13 For example, a patient with obesity, prediabetes, dyslipidemia, and mild depressive disorder would require a team that includes a coordinator and nutrition, exercise, and mental health specialists. The coordinator could be a primary care physician, medical specialist or registered nurse who would manage the team of health professionals and patient family members. The nutrition health professional would be a registered dietitian nutritionist for providing counseling for glucose control and weight loss; an exercise specialist for tailoring a physical fitness program; and a clinical psychologist for offering behavior modification and cognitive therapies. Similar team make-up and function were recommended in the report by the Obesity Society and the American College of Cardiology/
Obesity Program Website Review

Multiple simple Google searches combining the terms obesity management program with select states (US) and provinces (Canada) were utilized to identify a sample of program websites appearing to offer some level of interprofessional obesity care. Criteria included programs advertising provision of overweight/obesity care for adults located in the US or Canada and listing three or more different types of professionals (and their certifications) working together to deliver this care.

The sample consisted of 55 obesity care center websites (45 in the US/10 in Canada). Of these, 17 were university/medical center based. Each website was hand searched to identify the professionals listed as providing obesity care and the certifications of the professionals listed.

Of the 43 providing information about their professional staff, all listed a physician, 23 listed a nurse practitioner or physician assistant, 27 noted a nutritionist or registered dietician, and a few listed counselor/social worker/psychologist, and/or exercise physiologist/physical therapist.

Fig. 3. Process for identifying which professions make up obesity teams in non-academic centers.

American Heart Association (ACC/AHA) Task Force on Practice Guidelines.14 Their research pointed to the effectiveness of multidisciplinary teams for addressing health risks associated with obesity. Such teams, they noted, would include experts from medicine, nutrition and dietetics, and behavioral health along with other “highly trained professionals.” The registered dietitian nutritionist was responsible for providing dietary guidance and worked with other interventionists to include psychologists, exercise specialists, and health counselors. Team members followed pre-set weight management protocols that, at times, were delivered by trained lay persons. While the role of the primary care provider was not discussed, it could be argued that it would include coordinating team function, prescribing, and monitoring the physical progress of the patient.

Dietz and Gallagher15 proposed standards of care to augment the work of ACC/AHA. Based on wide stakeholder group input, the authors proposed care standards for all providers loosely defined as an interprofessional care team of “prescribers, physical therapists, registered dietitian nutritionists, kinesiologists, psychologists, and others” (p. 1060). These standards underscore the importance of shared decision-making among team members and a unified patient or client-centered approach for the betterment of patients/clients. Individual profession roles or responsibilities were not discussed except in offering standards of care for “clinical providers” that emphasized a patient-centered approach in the care, counseling, and prescribing practices of clinical providers. Earlier work by19 suggested including community health workers and community leaders in addition to other care providers and practitioners “such as dietitians, nurse practitioners, social workers, and psychologists”15 (p. 1457) presumably for continuity of care outside of the structured clinical environment. The online supplement provides a description of the professions that do or could play a role in the care and treatment of persons with obesity, including clinical and non-clinical professions as well as the patient.

4.1.4. Team function in obesity treatment

The IPEC competencies are broadly used for establishing learner outcomes for high quality healthcare across the system. Regardless of the setting, patient profile or team make up, this set of competencies lays the foundation for team functioning that could be applied to obesity treatment. Specific aspects of the competencies relative to obesity treatment teams include being patient/family centered and relationship focused, sharing a common language and being outcome driven. Each competency domain (values/ethics, roles/responsibilities, communication and teamwork) includes specific sub-competencies with potential application to learners who will function in teams to treat obesity.

A 2017 Cochrane review referred to studies targeting interventions for individual health care professionals (i.e., educational materials and workshops) or multidisciplinary teamwork (to include a registered dietitian nutritionist and physician), in an effort to foster weight loss among people with overweight or obesity.20 Neither individual nor multidisciplinary interventions appeared to have a clinically important effect on the weight or body mass index of the participating patients. It is not possible to know whether an interprofessional/interdisciplinary approach would have shown different outcomes.

Baker21 noted that for a team to reach its goal, members need to know or have knowledge of the roles and responsibilities of each team member and how individuals’ roles and job assignments fit together (i.e., an interprofessional approach). However, accomplishing truly interprofessional care within obesity treatment may be difficult. In a
qualitative exploration of roles and responsibilities in the treatment and management of persons affected by obesity, Hayes et al. spoke with primary care physicians, physician assistants, nurse practitioners, and patient advocates. Two key challenges to teamwork emerged from their conversations. One was a lack of interprofessional integration, and the other was insufficient role delineation that could undermine patient care. The authors remarked that among the barriers to providing care to persons with obesity was a lack of professional training in the various physical and emotional needs of this population, as well as a lack of understanding about the competencies and skillsets of other health care providers (e.g., registered dietitian nutritionist, kinesiologist, psychologist). DiMarla-Gialli et al. further suggested the possibility that each profession would have to establish its own professional competencies for obesity treatment before collaborating on the development of interprofessional nutrition competencies.

4.2. Results of interviews

Four team-based messages emerged from the interviews: (1) lack of reimbursement for all essential and desired team members prevents offering a full range of services for the patient; (2) insufficient opportunities for training with well-functioning interprofessional obesity teams can impede maximal team function; (3) the team leader sets the tone that can promote respectful exchange of opinions among team members; and (4) learning from other team members is believed to improve the patient experience and provider satisfaction. These four messages, along with descriptive interview quotes, and how they relate to specific IPEC competencies (mutual respect across professions; knowledge of one’s own role and the roles of team members; effective communication across professions; and application of relationship-building values) are shown in Table 1.

Based on these interviews, it appears that while some obesity treatment teams function with a high degree of collaboration across professions, many others work at a more siloed, uni-professional level. Given that, opportunities to learn from well-functioning teams are limited. It was also evident that a lack of commonly understood terminology for describing team function exists, with respondents using the term “multidisciplinary” interchangeably with “interdisciplinary” and a noticeable reluctance to use the term “interprofessional.”

This exploration highlights some critical themes within interprofessional obesity treatment. One theme identified is the lack of unified awareness of obesity treatment competencies. Though some individual professions, namely medicine and nutrition and dietetics, may have individual trainings and competencies related to obesity treatment, a void in awareness of interprofessional competencies exists. Additionally, there is no compiled list of interprofessional (or uni-professional) obesity certification programs. Most of the discussion about competencies found in the literature reports lack of knowledge about obesity and the skills to prevent or treat it by physicians and other health care professionals. Awareness of and interaction with interprofessional obesity competencies such as the standards developed by the STOP Obesity Alliance or the 32 competencies from the Obesity Medicine Education Collaborative could be positive first steps in developing stronger interprofessional competence among team members working in obesity treatment.

A challenge that may contribute to the advancement of interprofessional obesity treatment competencies is the discrepancy in terminology use surrounding interprofessional education and collaboration. In both the literature and interviews, the terms multidisciplinary and interdisciplinarity were often used interchangeably whether discussing competencies or practice. Without a clear definition of either, it is impossible to know the intent of their use. Conversely, the term interprofessional has a formal definition suggesting an approach to education and practice where stakeholders from multiple professions learn about, from, and with each other as they collaborate toward a common goal. A benefit of Interprofessional Education (IPE) is the emphasis on developing a deeper understanding of and appreciation for the roles and responsibilities of health professionals as suggested by the Interprofessional Education Collaborative’s core competencies. Moving toward a more unified approach to terminology could be helpful in clarifying the literature. In the meantime, researchers are encouraged to provide adequate detail in their publications so the reader can ascertain where along the spectrum of collaboration—minimal to highly integrated—the team falls.

Despite the discrepancy in terminology, an overarching premise identified in both the review of existing literature and interviews was the importance of team function for optimal patient care and enhanced provider satisfaction in working with challenging populations with complex needs. For enhanced team function in obesity, each team member shares his or her professional expertise with other team members in setting realistic goals for their patients. Team members can respectfully challenge other team members’ views in an effort to build a more cohesive, patient-centered treatment plan. When speaking with patients, the interprofessional team now speaks with one voice. The single voice can only be achieved through open dialogue among team members where the role and responsibilities of each member of the team can become clear. It has been proposed that, over time, teams can progress from working side-by-side to a more cooperative, coordinated, and collaborative unit as relationships form and trust among team members is built. A challenge that remains in determining optimal structures for leadership among obesity treatment teams and whether this is actually being driven by competencies or rather by funding structures. Given the insufficient payment structures for financing the desired variety of fulltime professionals on an obesity treatment team, team leaders are often forced to think creatively in building what most deem essential services for treating obesity (e.g., nutrition counseling, physical fitness, mental health services). Asselin et al. described a lack of role delineation and understanding of team members’ roles and responsibilities. Whether observations by Asselin at al. are a function of the financial challenges leading to time restrictions that limit opportunities for communication among team members, is uncertain. However, it does appear that growing and maintaining an obesity treatment team often, but not always, takes precedence over finding time for team

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<th>IPEC Competency</th>
<th>Key Messages and Selected Quotes</th>
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<td>Mutual respect across professions</td>
<td>Learning from other team members is believed to improve the patient experience and provider satisfaction. “We have a lot of differences and commonalities and I think it helps us to better serve our patients … [who] actually appreciate that we are communicating about their care.”</td>
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<td>Knowledge of one’s own role and the roles of team members</td>
<td>Insufficient opportunities for training with well-functioning interprofessional obesity teams can impede maximal team function. “Better training on how to work collaboratively could improve interprofessional teamwork.” The team leader sets the tone that can promote respectful exchange of opinions among team members. “Health care has traditionally been hierarchical so if you have a multidisciplinary team... some disciplines may feel they are undervalued... emphasize the value of every role and every person on the team and make sure all the other disciplines understand their value and what they bring.”</td>
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<tr>
<td>Effective communication across professions</td>
<td>Lack of reimbursement for all essential and desired team members prevents offering a full range of services for the patient. “Reimbursement, particularly for dietitians, is one of the great challenges. Dietitians are not reimbursed in current model which is a main reason why they are not routinely in primary care offices.”</td>
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members to work together and gain the trust of other team members. This is an important consideration given that the patient is the one who benefits most from a high functioning team. More research is needed to determine whether financial and time restrictions of team members stunt the growth of teams to becoming more of a cohesive unit.

Overall, interviewed team members expressed a commitment to and appreciation for their work within obesity treatment teams. Many indirectly described their work as more of a calling than a job. Development as interprofessional team members helps contribute to professional satisfaction which is called for as part of overall health care reform in the Quadruple Aim. Interprofessional collaboration is inherently geared toward work that aims to achieve a common goal of providing the best care for the patient.

5. Limitations

Due to the nature of mixed-methods research, limitations exist in this study. The approaches used to gather data (systematic literature review and interviews) allow for gaps in evidence between the two types of data collected. Additionally, a small convenience sample was used, potentially introducing bias into the study sample and limiting the ability to apply the findings beyond this study sample.

6. Conclusion

It is believed that teamwork and interprofessional collaboration are critical to the provision of high quality, patient-centered care across many health care contexts, including obesity treatment. However, with few examples of well-functioning obesity treatment teams to act as role models and training sites, a void exists. More work is needed to understand how the challenges in establishing and maintaining obesity treatment teams affects training opportunities and the growth of teams to become a more cohesive unit. It will be equally important to study how interprofessional obesity competencies and training, geared toward developing shared decision making and shared goals, could impact patient care and provider satisfaction. That said, interpretation of the literature will require a shared understanding and use of the terms applied to describe team interactions.

The results of this exploration shed light on the importance but lack of interprofessional training in preparing health care professionals for work on interprofessional obesity treatment teams. Without adequate reimbursement for all the needed health professions to provide basic services to persons with obesity, expanding small programs will be an ongoing challenge.

CRediT authorship contribution statement

Kathrin Elliot: Conceptualization, Methodology, Investigation, Writing – original draft, Visualization, Supervision. Patricia Cuff: Conceptualization, Methodology, Investigation, Writing – original draft, Visualization, Project administration. Gina Finnhaber: Conceptualization, Methodology, Investigation, Writing – original draft, Visualization. Kathryn M. Kolasa: Conceptualization, Methodology, Investigation, Writing – original draft, Visualization.

Declaration of competing interest

The authors have no conflicts of interest to disclose.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.xjepd.2021.100475.

References


