

Barriers to accessing weight-loss interventions for patients with class II or III obesity in primary care: a qualitative study

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Abstract

Background: Over 1 million Canadians have class II or III obesity; however, access to weight-loss interventions for these patients remains limited. The purpose of our study was to identify the barriers to accessing medical and surgical weight-loss interventions from the perspectives of 3 groups: family physicians, patients who were referred for weight-loss intervention and patients who were not referred for weight-loss intervention.

Methods: Between November 2017 and May 2018, we conducted a qualitative exploratory research study using focus groups with family physicians and interviews with patients with class II or III obesity from 1 region in southern Ontario. We conducted a thematic analysis to identify emergent themes and used the barriers to change theory to classify the similarities and differences between the perspectives of family physicians, referred patients and nonreferred patients in first- and second-order barriers.

Results: Seventeen family physicians participated in 7 focus groups (1–4 participants/group), and we interviewed 8 referred patients and 7 nonreferred patients. We identified lack of resource supports, logistics and lack of knowledge about weight-loss interventions as first-order barriers to change, and lack of knowledge about root causes of obesity, lack of patient readiness for change and family physicians' perceptions about surgical weight loss as second-order barriers to change. Family physicians and patients had similar perceptions regarding lack of resource supports in the community, logistical issues, family physicians' lack of knowledge regarding weight-loss interventions, patients' lack of motivation and family physicians' perceptions of bariatric surgery as being high risk. They differed regarding the root cause of obesity, with family physicians attributing obesity to multiple extrinsic and intrinsic causes, whereas patients believed obesity was largely due to intrinsic causes alone.

Interpretation: It is important to address first- and second-order barriers to accessing weight-loss interventions through continuing professional development activities for family physicians to help ensure effective and timely treatment for patients with class II or III obesity and related comorbidities.

Obesity is a chronic, progressive disease that is difficult to treat and is associated with many detrimental health effects.¹ Sustained weight loss is associated with prevention, alleviation and resolution of many obesity-related comorbidities.² Weight-loss interventions such as medical weight loss (including behaviour intervention, medically supervised weight management programs and anti-obesity medications) and bariatric surgery are available to some Canadians with class II (body mass index 35.0–39.9) and III (body mass index \geq 40) obesity through provincial insurance programs.³

Although this is the case in Ontario, there are barriers to accessing these interventions. Out-of-pocket cost for meal replacements and lack of insurance coverage for antiobesity medications are barriers to medical weight-loss interven-

tions.⁴ Wait times, insurance and funding issues, and gaps in physicians' knowledge are barriers to accessing bariatric surgery.^{5,6} In 2017, bariatric surgery was offered to less than 1% (1 in 178) of eligible Canadian adults.⁴ Less than 50% of physicians feel comfortable explaining bariatric surgery to

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patients, discussing what occurs during the referral process and surgery, and identifying risks and benefits of contemporary bariatric surgery.^{7,8}

Although barriers to accessing weight-loss interventions have been identified,⁴⁻⁸ the barriers from the perspectives of family physicians and patients with class II or III obesity in Canada remain underexplored. The purpose of our study was to identify the barriers to accessing weight-loss interventions from the perspectives of family physicians, patients referred for a weight-loss intervention and patients who were eligible but were not referred for such an intervention.

Theoretical framework

Our paper is framed by the barriers to change theory.⁹⁻¹¹ First-order barriers to change are extrinsic and occur outside the change agent's control. They include lack of resources, ineffective professional development and training, and inadequate supports.¹²⁻¹⁵ Second-order barriers are intrinsic and involve changes to practice and beliefs. They are viewed as less tangible, deeply rooted and more personal than first-order barriers.^{11,15} Second-order barriers are more difficult to address; however, overcoming both first- and second-order barriers to achieve desired outcomes is essential if change is to occur.^{15,16}

Methods

Study design

Our study adopted a qualitative exploratory research design. It was conducted between November 2017 and May 2018.

Setting

The South East Local Health Integration Network in Ontario covers roughly 25 000 km² and has a population of 500 000 (3.6% of the Ontario population).¹⁷ Twenty-five percent of the population live in an urban centre, and 45% live in rural areas.¹⁷

Recruitment

Convenience sampling was used for recruitment. We obtained a list of all family physicians practising in the South East Local Health Integration Network by searching postal codes in a publicly available online database (College of Physicians and Surgeons of Ontario, <https://www.cpso.on.ca>). All identified family physicians were invited to participate via mail, fax or email. Family physicians were eligible if they were willing and able to attend a focus group during the data collection period. Additional focus groups and interviews were scheduled to accommodate family physicians when they were not able to attend prescheduled times. Adult patients were eligible if they had class II obesity and obesity-related comorbidities (e.g., hypertension, diabetes, dyslipidemia) or class III obesity. Referred patients were invited to participate by 1 of the investigators (B.Z.) during scheduled appointments at the Bariatric Centre of Excellence in November 2017. Nonreferred patients were identified by searching the electronic medical record of 1 academic family medicine

practice. All adult nonreferred patients were invited to participate by a researcher (J.M.) by telephone or at scheduled appointments.

Data collection

Semistructured focus group and interview scripts (Appendices 1 and 2, available at www.cmajopen.ca/content/7/4/E738/suppl/DC1) were informed by a literature review¹⁸ to identify previously reported barriers to accessing weight-loss interventions and gaps in literature that helped shape questions. Scripts were developed by the research team through multiple discussions and consensus. Scripts were reviewed and revised to include probes for 2 questions that participants thought were unclear (items 9b and 10b). Two researchers with expertise in qualitative methods who had no relationship with the study participants conducted the interviews and focus groups. One researcher (C.G.) facilitated the in-person focus groups (duration 90 min) with family physicians, and a second researcher (M.M.) wrote notes and summarized main points. One researcher (M.M.) conducted the interviews (duration 35 min) with referred and nonreferred patients in person or by telephone. Data collection continued until data saturation was reached (no new information or additional issues emerged, and themes began to repeat).¹⁹ The focus group discussions and interviews were audiorecorded, transcribed verbatim and deidentified by an external transcriber. One researcher (M.M.) read all transcripts and verified inconsistencies (typographic errors or unclear wording) by listening to the corresponding audiorecordings.

Data analysis

We adopted an inductive, emergent thematic analysis using open coding in NVivo 12 (QSR International).^{20,21} Members of the research team discussed the codes to ensure consensus and noted key themes to develop a codebook. One researcher (M.M.) coded remaining transcripts, modifying the codebook where necessary and identifying exemplar quotes. Three researchers (B.Z., N.D. and M.M.) grouped the final codes to identify sub- and overarching themes, and conducted comparative thematic analysis^{20,21} to identify relations between groups. The themes were aligned to our theoretical framework. Discussions around personal biases and assumptions were conducted to address reflexivity from the lens of critical self-reflections regarding individual team member's biases, which may have otherwise influenced data collection, analysis and the interpretation of results.²²

Ethics approval

Ethics approval was obtained from the Queen's University Health Sciences and Affiliated Teaching Hospitals Research Ethics Board.

Results

Of the 591 family physicians invited to participate in the focus groups, 43 agreed. Eighteen family physicians who agreed but

did not participate in the study were lost to follow-up, and 8 declined to participate at a later date. We thus conducted 7 focus groups with 17 family physicians. There were 3 physicians in focus group 1, 4 in focus group 2, 4 in focus group 3, 2 in focus group 4, 1 in focus group 5, 1 in focus group 6 and 2 in focus group 7. Twenty-four referred patients consented; data saturation was achieved after 8 interviews. The electronic medical record search identified 52 nonreferred patients who met our inclusion criteria; 10 were invited and 7 participated. The participants' demographic characteristics are presented in Table 1.

Two themes emerged from our analysis: first-order barriers to change and second-order barriers to change.

Table 1: Participant demographic characteristics			
Characteristic	No. (%) of participants		
	Family physicians <i>n</i> = 17	Referred patients <i>n</i> = 8	Nonreferred patients <i>n</i> = 7
Age, yr			
20–29	–	1 (12)	0 (0)
30–39	–	2 (25)	1 (14)
40–49	–	1 (12)	1 (14)
50–59	–	2 (25)	2 (29)
≥ 60	–	2 (25)	3 (43)
Practice setting			
Urban	10 (59)	–	–
Rural	7 (41)	–	–
Years in practice			
≤ 9	3 (18)	–	–
10–19	3 (18)	–	–
20–29	6 (35)	–	–
30–39	3 (18)	–	–
≥ 40	2 (12)	–	–
Gender			
Male	5 (29)	2 (25)	3 (43)
Female	12 (71)	6 (75)	4 (57)
Practice type			
Family Health Team	6 (35)	3 (38)	7 (100)
Other group practice	6 (35)	3 (38)	0 (0)
Solo practice	1 (6)	2 (25)	0 (0)
Walk-in clinic or hospitalist	4 (24)	0 (0)	0 (0)
Years with practice			
≤ 4	–	1 (12)	3 (43)
5–9	–	3 (38)	4 (57)
10–14	–	2 (25)	0 (0)
≥ 20	–	2 (25)	0 (0)

First-order barriers to change

Resource supports, logistics and lack of knowledge were the subthemes identified as first-order barriers. Table 2 includes representative quotes.

Resource supports

Having supportive local and community resources was a major facilitator for family physicians in accessing weight-loss interventions for patients with obesity. This was especially true for those working in interprofessional models of primary care. Conversely, family physicians without ready access to group or community programming, specialists or allied health care professionals identified lack of resources as a major barrier, especially for those in solo practice or rural locations. Similarly, patients in rural areas suggested that limited community resources was a barrier to accessing weight-loss interventions. This was not a barrier for patients in urban areas.

Logistics

Lack of time, costs and geographic location were important barriers to accessing weight-loss interventions. All groups perceived lack of time for family physicians as a barrier. Cost was also a barrier for referred and nonreferred patients to access support services (e.g., nutritional programs, private dietitians), especially for those in rural areas where these resources were not available. Most family physicians stated that access to weight-loss interventions was facilitated by having financial means for private services and medications; however, many patients were not able to afford these treatments. Distance from the Bariatric Centre of Excellence and expensive travel costs were also reported to be a barrier to accessing weight-loss interventions for patients who lived in rural or remote areas.

Lack of knowledge

Referred and nonreferred patients believed that family physicians' lack of knowledge was a key barrier to accessing weight-loss interventions. They felt their family physician did not possess the knowledge required to discuss all available weight-loss intervention options. Referred patients overwhelmingly perceived that their family physician lacked knowledge about bariatric surgery. Family physicians also acknowledged their dearth of knowledge about bariatric surgery, primarily regarding postsurgical complications and follow-up. Some family physicians struggled with their role as motivator and believed they lacked knowledge and education about how to effectively encourage patients to make necessary lifestyle changes. Family physicians were also unsure and uncomfortable about how to sensitively discuss weight-loss interventions with patients unless the discussion was associated with an obesity-related comorbidity. This was confirmed by nonreferred patients, the majority of whom stated that they had never discussed surgical weight-loss interventions with their family physician. As well, family physicians admitted that they did not know how or where to refer their patients for medical and surgical weight-loss interventions. Finally, many family physicians suggested that a patient's lack

Table 2: Selected quotes for theme 1: first-order barriers to change

Subtheme	Representative quote
Resource supports	<p>The clinics that I am involved with, they are pretty well equipped, to be honest. ... All the ones that I have worked in have specific weight-loss programs. At [location], it is “healthy weight, healthy you.” In [alternative location] family health team, it is the metabolic change program. So, the programs are available, and I feel we are well supported in that way. (family physician 10)</p> <p>We don't have anyone to turn to or to direct people to. Some people come in and are quite motivated. They want to meet with the dietitian, and they know that their friend who is a patient at a [family health] team has met with a dietitian at their family doctor's office. So why can't that happen [for them]? It is unfair, mostly for the patient. (family physician 2)</p> <p>Plus she sent me to the ... nutritional program at the hospital. ... Each level that I wanted to take or each different ... platform that they were supposed to deliver that I wanted ... they said “Oh, right now we're not doing that one.” (nonreferred patient 6)</p> <p>I was doing exercise at the pool. ... My wife and I were going for about 5 or 6 years and we were doing aquafit. But the town closed the pool. And when that happened, that exacerbated my weight issues and my blood pressure issues. (referred patient 2)</p>
Logistics	<p>I find the other barrier is lack of time. If I could sit with them [patients] and do a motivational speech to them every week, I bet you I could help them stay on plan. But I just don't have that kind of time, and I don't have someone in my office who does. ... And certainly, the cost ... liraglutide is horribly expensive. So, you have to be well [off] to afford it. (family physician 5)</p> <p>I only have so much time, and then she [family physician] is off to the next appointment. I don't think the time necessary is afforded for the patient. I feel like I am in, I talk about whatever is bothering me, “Here is a prescription to take care of it” and off to the next patient. (referred patient 6)</p> <p>The doctor's not available. The clinic's not open. They work limited hours, and if you want an appointment you have to wait an inordinately long time to get one. (nonreferred patient 1)</p> <p>I have so few people who will go to a private dietitian because of the cost. (family physician 1)</p> <p>I went to Herbal Magic and that was expensive. I did lose my weight, but I couldn't afford to keep that up. (referred patient 3)</p> <p>Even just basic things like transport to the bariatric program, for instance, is very costly, especially if you are morbidly obese because you require more expensive patient transfer than just taking the access bus, for instance. (family physician 4)</p> <p>Consultation with specialists — is there a specialist around? I would be happy to refer. I don't know any. (family physician 13)</p>
Lack of knowledge	<p>I wish they [family physicians] were more knowledgeable on different options. They are, like, “Oh, you have weight issues, then go see a dietitian.” “Oh, you still have weight issues, then exercise.” I could literally search that on Google. There is no in-depth. ... That is why I say I think doctors should be educated on that enough to sit down with the person and give [him or her] that information instead of saving it for when you get into the program. (referred patient 4)</p> <p>She [family physician] didn't really know about the bariatric clinic. So basically I kind of told her and then she looked into it. So, I mean, she did do the research after she found out about it. (nonreferred patient 4)</p> <p>But managing [patients] afterwards? It is, like, “You have an issue? Go to your surgeon.” ... All these wonderful vitamins that they are on, and they get blood work done every month. And there is this dumping syndrome and postsurgical hyporeactive glycemia. And I am, like, “I don't know what is going on.” ... When you're looking at a population that is marginalized financially, marginalized from an educational perspective ... you're dealing with a knowledge deficit. (family physician 11)</p> <p>I am thinking, too, for myself. Physicians are expected to be a motivator. ... How am I going to talk about the weight or the diabetes? I have never had any training to be able to put myself in that person's shoes and understand stuff. (family physician 8)</p> <p>I suppose that if [patients] were morbidly obese, I might bring up surgery at some point, although I find that a very sensitive topic. People feel like they're a lost cause. (family physician 15)</p> <p>With the bariatric surgery, the weight-loss surgery ... maybe if the doctor could mention more about how it is done and if there will be any side effects, how long the recovery time will be, whether it's months or years. It might be useful information. (nonreferred patient 07)</p> <p>[I don't know] the resources in the community. To be honest, other than knowing what is in my hospital, I don't really know where to refer people. (family physician 10)</p> <p>Some of them [patients] don't acknowledge that their weight is a problem at all. And they're quite comfortable with their weight being what it is and don't see it as an issue, even though they may have comorbidities. (family physician 12)</p>

Table 3: Selected quotes for theme 2: second-order barriers to change	
Subtheme	Representative quote
Root causes of obesity	<p>My doctor said ... “You’ve got to give up everything white.” ... Like pasta and rice and bread. And I said “You’re killing me here.” That has always been my diet, growing up and everything. (nonreferred patient 2)</p> <p>Healthy eating ... was actually the hardest for me to do because I am a food addict. I have to be so careful. It is almost like I have to abstain from eating foods that trigger. (referred patient 7)</p> <p>The thing that I struggle with most is that their root causes of obesity are outside of spirit of control and influence. So, things like access to healthy food, sedentary lifestyle, the built environment ... those are all things that have led us to where we are. (family physician 6)</p>
Motivation	<p>Recently ... I had a patient and she was motivated because she wanted to have [in vitro fertilization] and was told she had to lose 150 to 200 pounds [68–91 kg]. ... She has had great success, but again it is because she has a goal that she wants to get to so that she can finally have [in vitro fertilization]. (family physician 2)</p> <p>I would say that most people don’t want to change, to be honest. It doesn’t matter what resources you have available. If you have this wonderful multidisciplinary team with a dietitian and social workers and everything ... a lot of people are just not ready to change yet. (family physician 8)</p> <p>He’s [physician] pointed me in all the right directions, now it’s just up to me to do it. It’s an everyday battle. (nonreferred patient 5)</p> <p>Maybe this [bariatric surgery] will make me change the way I eat everything and exercise more and stuff like that. It was the motivation to have that good kick in the butt kind of thing to get you going to lose the weight. (referred patient 5)</p> <p>I thought that it would be a proactive thing that I could do to lose weight and to control my diabetes. (referred patient 2)</p> <p>To be healthier and to be able to control the weight areas, because I’m not really sure just with my weight just how many [comorbid conditions] it is controlling, you know. (nonreferred patient 2)</p>
Perceptions of bariatric surgery	<p>Of course, you will lose the weight for sure, but you end up with all sorts of possible complications, plus it’s not reversible. ... It has a lot of risks, I think. I’m just not convinced. ... Once you’re convinced yourself, then you can recommend, and so until they [patients] have tried nonsurgical measures, I would not recommend surgery. I just feel it’s like suggesting something that I think is harmful. (family physician 13)</p> <p>I kind of wish my doctor had encouraged me a while back regarding surgery. It is almost like surgery is taboo or it is not something that is encouraged. They make it feel like it is the last resort. (referred patient 6)</p> <p>I think if I ... [changed] my diet and my lifestyle with the exercising and everything, and if I kept gaining weight, then it wouldn’t be just being lazy — then it [bariatric surgery] might be an option for me. But with what I’m doing right now and the improvement I’m seeing, most likely I wouldn’t say yes to it at the very moment. (nonreferred patient 7)</p>

of education about nutrition and the medical implications of obesity was a major barrier to provision of quality care.

Second-order barriers to change

We identified 3 subthemes as second-order barriers to change: root causes of obesity, motivation and perceptions of bariatric surgery. Table 3 includes representative quotes.

Root causes of obesity

The participant groups expressed varied opinions about the root causes of obesity. The referred and nonreferred patients believed that their obesity stemmed from a general lack of self-control and a preference for processed and junk foods. They were certain that obesity was a consequence of lifestyle choices and blamed themselves for their weight issues. Several

referred patients stated that they had a food addiction: an inability to stop eating. In contrast, family physicians held a broader view, believing it was primarily the societal influence on obesity that has led to the current epidemic. They identified factors such as targeted advertising of processed foods (especially to children), lack of education about healthy eating habits, unaddressed mental health issues and high costs of healthy foods as contributors.

Motivation

Motivation emerged as a second-order barrier to change in all participant groups. Family physicians noted that treating highly motivated patients was a facilitator in initiating weight-loss interventions. They believed such patients were the most successful in losing weight, were goal-oriented, and were most

often motivated by the desire to get pregnant or treat obesity-related comorbidities. Conversely, family physicians found that lack of readiness for health behaviour change was a barrier to accessing weight-loss interventions for patients with obesity. Nonreferred patients agreed, stating that, even when their doctor gave advice, it was ultimately up to them to make changes. Family physicians were motivated to refer patients for surgical weight-loss interventions only when patients suggested or requested it. Motivation to seek surgical weight-loss interventions for referred patients included a desire to lose weight or control food intake, or have surgery initiate the weight-loss process. Referred patients were motivated to improve overall health and treat symptoms of obesity-related comorbidities. Nonreferred patients also cited alleviating comorbidities as the main motivator for considering a surgical weight-loss intervention.

Perceptions of bariatric surgery

Although family physicians perceived bariatric surgery to be effective for weight loss and resolving obesity-related comorbidities, most viewed it as high risk and associated with major postoperative short- and long-term complications. It was seen as a last resort after unsuccessful attempts at all other weight-loss interventions. Referred patients confirmed this perception, with most noting they explicitly asked for a referral for surgery from their family physicians. Referred patients stated that their family physician did not suggest surgery as a viable option but wished it had been a part of their initial discussion and health care plan. Despite qualifying for surgical weight-loss interventions, all nonreferred patients stated that their family physician did not discuss it as a treatment option. They, too, believed that a surgical weight-loss intervention was a final option and would be considered only if other treatments remained ineffective.

Interpretation

We identified the following barriers to accessing weight-loss interventions for patients with class II or III obesity: resource supports, logistics, lack of knowledge, root causes of obesity, motivation and perceptions of bariatric surgery. We identified contrasting views from family physicians and patients about the root causes of obesity. Family physicians were aware of multiple extrinsic and intrinsic causes of obesity, including behavioural, social, economic and psychological, whereas patients with obesity believed that intrinsic causes were the dominant reasons for their obesity. The association among socioeconomic status, lack of physical activity, unhealthy food choices and obesity is well documented in the literature;^{23–25} however, patients seem to be unaware of this complex interplay among environmental, behavioural, economic and psychologic factors.²⁶ Family physicians and other allied health care professionals should take the opportunity to educate patients about risk factors for obesity, which may help eliminate the pervasive misconception that obesity is a self-induced disease.

We identified cost as a barrier to accessing weight-loss interventions for patients with obesity. Increased distance

travelled by patients to access care has been shown to be associated with less adherence to follow-up,^{27,28} reduced long-term survival²⁷ and increased likelihood of emergency department visits following bariatric surgery.²⁹ Supplements, which are required after bariatric surgery, are rarely covered by health insurance plans, which can be a prohibitive barrier to accessing surgical weight-loss interventions for economically disadvantaged patients. This barrier to accessing weight-loss interventions will require systemic changes to the current health care system and insurance coverage.

Regarding lack of motivation for change in patients with obesity as a barrier to accessing weight-loss intervention, continuing professional development for family physicians centred on motivational interviewing and effective communication strategies would assist them in overcoming this barrier.^{30,31} We also identified family physicians' lack of knowledge and misconceptions about contemporary bariatric surgery as a barrier to accessing surgical weight-loss interventions. Similar results were noted in a recent systematic review of factors that influence primary care providers' referral for bariatric surgery.¹⁸ We have also previously shown that only 6.7% of all eligible patients with class II or III obesity were referred for weight-loss interventions in 1 region of Ontario.³²

Like other authors,^{27,33} we suggest addressing identified barriers to accessing weight-loss interventions not only by focusing on continuing professional development efforts to improve family physicians' overall care of patients with obesity and their referral practices but also by improving access for patients to supportive local and community resources, and for family physicians to interprofessional teams. As part of an interprofessional approach to weight-loss interventions, allied health care professionals should address the multiple factors associated with obesity holistically. Integration of family physicians into interprofessional health care teams may help overcome some of first- and second-order barriers to accessing weight-loss interventions that we have identified.

Limitations

We conducted our study in 1 region of Ontario, and patients were recruited from a bariatric centre of excellence and 1 family practice, which may limit the generalizability of our findings to other contexts. Women were disproportionately represented (75%) in the referred patient group; however, this is consistent with the overall referral patterns for weight-loss interventions in our region³² and across Canada.⁴ We did not use a tool such as the Edmonton Obesity Staging System³⁴ to further classify the severity of obesity for the patient participants. As such, it is possible that there was a difference in barriers experienced by participants with class II or III obesity in relation to metabolic, mechanical and mental health sequelae of obesity that was not identified in our study. In addition, geographic limitations and physician availability led to smaller focus group sizes (1–3 participants), whereas 4–12 participants are recommended to optimize group dynamics and elicit broad discussion;³⁵ this may have limited our findings. Last, there may have been selection bias in our voluntary and

convenience sampling, which may have resulted in selecting those interested in access to weight-loss interventions.

Conclusion

It is important to address first- and second-order barriers to accessing medical and surgical weight-loss interventions to help ensure effective treatment for patients with obesity and related comorbidities. As a next step, we plan to develop, implement and evaluate continuing professional development programs that address the barriers identified in our study.

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