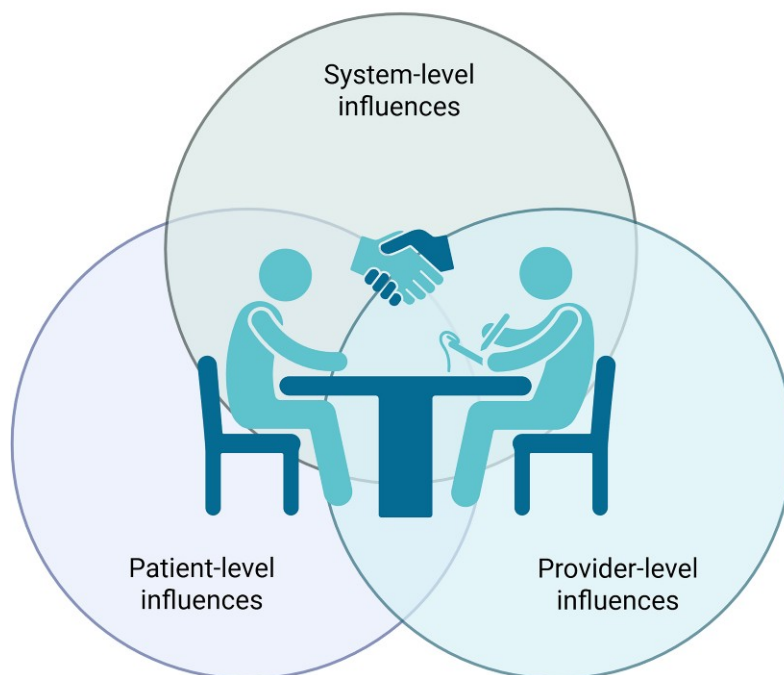


The New Obesity Treatment Landscape: Challenges and Opportunities to Promote Shared Decision-Making in People With Obesity and Type 2 Diabetes

Leah M. Schumacher, Sarah Bauerle Bass, Jamy Ard, Daniel J. Rubin, Sharon J. Herring, Ajay D. Rao, Resa M. Jones, and David B. Sarwer

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The New Obesity Treatment Landscape: Challenges and Opportunities To Promote Shared Decision-Making in People With Obesity and Type 2 Diabetes



- Shared decision-making (SDM) is recommended for obesity management in type 2 diabetes
- Despite its benefits, it can be challenging to implement SDM in clinical practice due to patient-, provider-, and system-level factors
- Past attempts to reduce barriers to SDM have had moderate success
- Clinical training and system-level change is needed to achieve the full promise of SDM
- These efforts are especially warranted given the prevalence of obesity and the rapidly changing obesity treatment landscape

ARTICLE HIGHLIGHTS

- **Why did we undertake this study?**
Shared decision-making (SDM) is increasingly recommended for obesity management in people with type 2 diabetes but can be challenging to put into practice.
- **What is the specific question(s) we wanted to answer?**
What are common barriers to SDM for obesity, how has past work tried to address these, and what are promising strategies for clinical implementation and future research?
- **What did we find?**
Multilevel factors impede effective, widespread use of SDM, including patient-, provider-, and system-level variables. Previous efforts to promote SDM have targeted each of these levels with varying success.
- **What are the implications of our findings?**
While SDM for obesity management in type 2 diabetes has many merits, additional training, support, and system-level change are needed to achieve the full potential of this approach.



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New obesity management guidelines, including those from the American Diabetes Association, advocate the use of shared decision-making (SDM) for obesity treatment. SDM is an evidence-based approach for promoting person-centered care and is widely recommended across medical specialties. However, a variety of issues challenge the use of SDM in daily practice. In this narrative review we discuss factors that may impede the use of SDM in adults with obesity and type 2 diabetes, as well as past efforts to address these barriers. Patient-level factors such as internalized weight bias and lack of knowledge about obesity and its treatment, provider-level factors such as limited training in obesity management and lack of confidence in sensitively discussing weight, and system-level factors like poor treatment access and limited care coordination stymie effective SDM around obesity management. A perceived power imbalance between patients and providers and medical mistrust are additional barriers for some. In the past, researchers have attempted to overcome these barriers to advancing SDM through approaches including patient decision aids, provider training, and clinical decision support systems, with moderate success. This article concludes with recommended strategies for clinical adoption of SDM for patients with obesity and type 2 diabetes, a call for system-level changes to create an environment more conducive to effective SDM, and directions for future research.

Nearly 90% of adult patients with type 2 diabetes have overweight or obesity, defined according to body mass index (BMI) 25.0–29.9 or ≥ 30.0 kg/m², respectively (1). Treating obesity can improve symptom severity and prognosis among those with type 2 diabetes (2). Weight management has long been a component of effective type 2 diabetes management, and the focus on weight management has increased in recent years (3,4). This shift is likely due to growing recognition of obesity as a chronic disease that requires treatment, as well as improvements in pharmacological and surgical treatment (5–7).

Patients and providers in the current environment must navigate a wider range of obesity treatment options than ever before. The most recent versions of the American Diabetes Association (ADA) “Standards of Care in Diabetes” emphasize the importance of using shared decision-making (SDM), a person-centered approach in which the patient and provider work together to make care decisions (8), for obesity treatment (2,9–11). See Fig. 1 for a summary of recent changes to the Standards of Care

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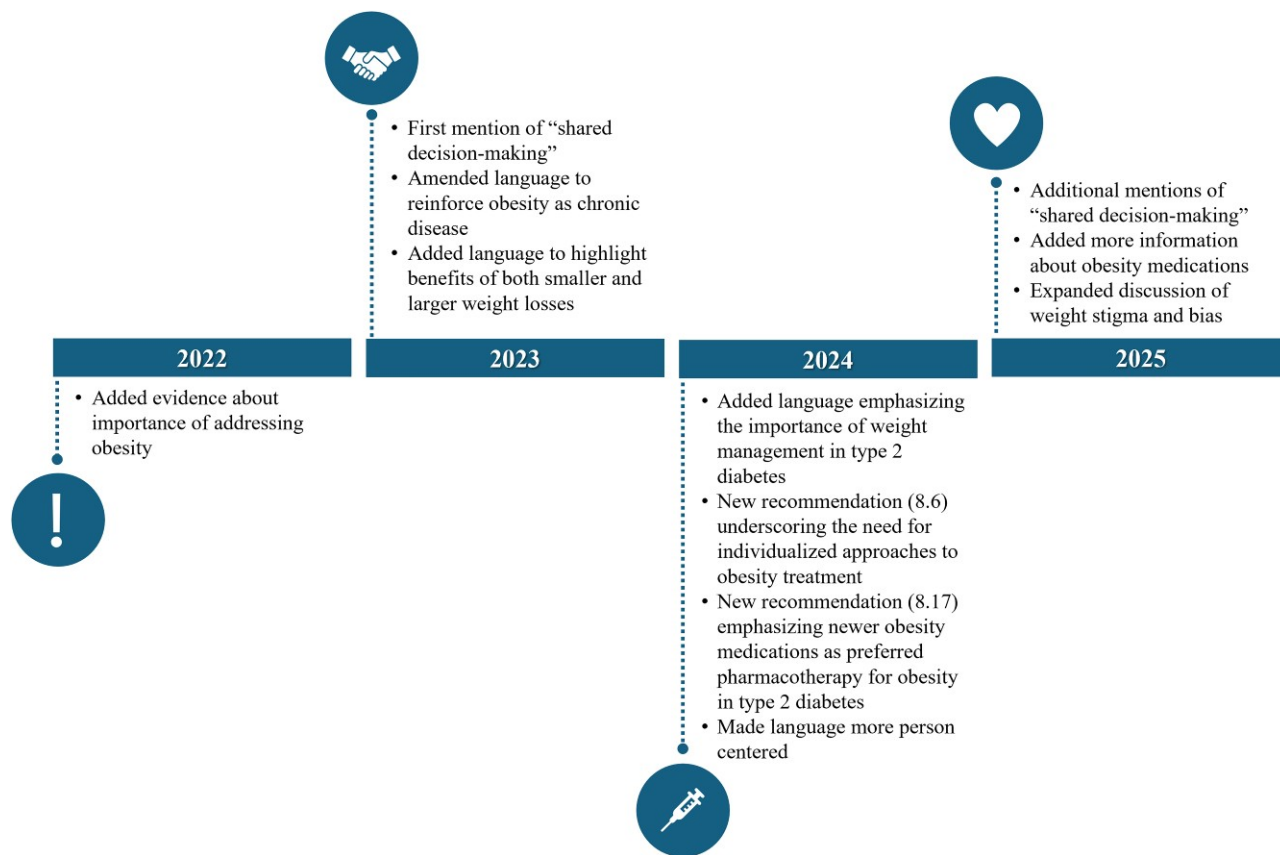


Figure 1—Recent changes to ADA Standards of Care, section 8, recommendations that reflect evolutions in the obesity treatment field (2,3,9–11).

that reflect evolutions in obesity treatment (2,9–11). The Obesity Association, a newly established subdivision of the ADA, is also in the process of releasing the new “Standards of Care in Overweight and Obesity.” Sections that have been released to date similarly emphasize the importance of SDM (12,13).

SDM generally improves care quality and may improve clinical outcomes for a range of medical conditions (8,14,15). This approach is widely recommended for treatment decisions where there are multiple options for patients to consider and where patients may have personalized preferences about these options (16). SDM has often historically been used for highly complex care decisions where outcomes are uncertain, such as organ transplantation (16). However, it may be particularly useful for the treatment of obesity, where both patients and providers may be easily overwhelmed by the range of evidence-based treatment options, clouded by an even greater number of non-evidence-based approaches (17–20). Although an SDM approach to obesity management in type 2 diabetes

likely has many merits, several factors challenge its use in daily practice (14,21–26).

In this narrative review we discuss recent research on factors impeding or facilitating SDM for adult patients with obesity and type 2 diabetes. A particular focus is on the swiftly changing obesity treatment landscape and the translation of research to clinical settings. After a brief review of recent obesity treatment recommendations and defining of SDM, this article discusses 1) common patient-, provider-, and system-level barriers to SDM for obesity management; 2) research where investigators have sought to promote SDM for people with obesity; and 3) implications for clinical practice and issues that require additional research attention.

OBSESITY TREATMENT OPTIONS

There are three evidence-based treatment modalities for obesity: lifestyle modification, obesity medications, and metabolic bariatric surgery (MBS) (2). All three reduce body weight and improve symptoms of type 2 diabetes (27–30). While patients with obesity and type 2 diabetes consistently lose less weight from these

treatments than patients without diabetes, weight losses from all three are sufficient to provide clinical benefit (i.e., 3%–5% weight loss with lifestyle modification, >10% with newer medications, and >25% with MBS) (27–30).

Lifestyle modification involves caloric restriction, increased physical activity, and behavioral modification and is often regarded as a “first line” treatment for both diseases (31). However, lifestyle modification is often criticized for modest weight losses and weight recurrence over time, both of which may limit impact on weight-related comorbidities (2). Recent clinical practice guidelines increasingly recommend use of newer obesity medications and MBS alongside lifestyle modification, given that these approaches commonly yield much greater weight losses and improvements in type 2 diabetes symptoms (2,32,33). There are currently six U.S. Food and Drug Administration–approved medications for long-term obesity management (2,7). Three of these—liraglutide, semaglutide, and tirzepatide—are GLP-1 receptor agonists or GLP-1/GIP dual agonists. (See the 2025 ADA guidelines and other resources for additional details

[2,7].) In addition, several types of MBS exist, with sleeve gastrectomy and Roux-en-Y gastric bypass accounting for ~80% of primary MBS procedures in the U.S. (34). All three evidence-based treatments differ with respect to a number of factors, including cost, availability, long-term effectiveness, and side effects (2,7,27). These considerations, and others, justify an SDM approach.

SDM

SDM aims to have the patient and provider work together to make care decisions informed by the evidence base, the provider's medical expertise, and the patient's preferences and personal circumstances (8). Multiple models of SDM have been put forth (15). Many share common elements, such as describing treatment options, including their risks and benefits; creating choice awareness; and exploring patient preferences (15). A generalized model of SDM from the Agency for Healthcare Research and Quality (AHRQ), the SHARE Approach (35), is shown in Fig. 2 (SHARE: Seek your patient's participation. Help your patient explore and compare treatment options. Assess your patient's values and preferences. Reach a decision with your patient. Evaluate your patient's decision). This model may be particularly useful, as it is a clinician-led SDM model with freely available online training resources (35).

SDM is believed to be most effective when patients feel comfortable exploring options and expressing their preferences (8). This factor likely requires that providers start visits with a period of active listening to the patient's concerns, rather than quickly articulating a prescriptive approach to care (8). In SDM, patients' preferences are respected. Patients should also be able to fully evaluate the potential benefits and risks of different treatment approaches (8). This requires that information be presented in an approachable, understandable

way, especially if there are concerns with general or health literacy (21,36). Potential avenues for promoting SDM are discussed below. (See PREVIOUS EFFORTS TO ENHANCE SDM and DISCUSSION.)

BARRIERS TO SDM

Factors at the patient, provider, and system level can create barriers to effective SDM. Knowledge of these factors can contextualize challenges encountered by clinicians in attempting to use SDM.

Patient-Level Influences

Multiple studies have identified several common influences on decision-making in obesity care. As highlighted by a sample of these studies with different methodologies (e.g., small, qualitative and survey studies [37–40]; large, multinational surveys [41–43]; reviews [44,45]), these influences include treatment access (e.g., cost, treatment availability) (37,40–44), likely impact on physical and emotional well-being (e.g., expected weight loss, ability to improve or reduce risk of co-occurring conditions, impact on quality of life) (37–39,42–44), potential complications or side effects (37–40,42–45), and support from clinicians, family, and friends (37,43,44). Patient perceptions about the appropriateness or acceptability of different treatment options (e.g., aversion to injectable medications, ability to implement dietary recommendations given the cost of healthy food and grocery store access), as well as about the sustainability of treatment (e.g., need for continued medication use for continued benefit, irreversibility of MBS), are also frequently cited considerations (38–40,42–44). Recent qualitative work has also shown that some patients may believe that their health care providers have limited knowledge about obesity and limited skills for fostering supportive, informative conversations around treatment (37), often

with good reason, as discussed below in PROVIDER- AND SYSTEM-LEVEL INFLUENCES.

In addition, multiple large observational studies and reviews suggest that many patients lack knowledge or harbor misperceptions about obesity and its treatment (40–42,44,45). For example, a study of >14,500 individuals with obesity across 11 countries showed that 68% of those with obesity agreed that obesity is a disease, yet 81% endorsed the belief that obesity is completely their responsibility to manage (41); similar findings have previously been reported (40,42). This contradictory viewpoint—a likely reflection of deep-rooted weight stigma that has long framed obesity as the result of poor personal choices or mental health issues (46)—may influence considerations of treatment options. Internalized stigma about obesity, defined as weight-biased beliefs and attitudes applied toward oneself (46), may influence decision-making in other ways, too. Data suggest that some patients may see obesity medications or MBS as the “easy way out” or “last resort” (38,44,47). For example, a patient with BMI 44.0 kg/m² and HbA_{1c} 8.5% may express a desire to begin a lifestyle-based approach, believing that she is not “heavy enough” for MBS and not appreciating the benefits of MBS for type 2 diabetes. Relatedly, considerable research using a range of designs (e.g., large observational studies of self-report data, qualitative interviews) indicates that many patients may have inaccurate views about the benefits and risks of different obesity treatment options, with many overestimating the effectiveness of lifestyle modification and underestimating the safety and potential benefits of medications and MBS (17,38,40–45).

Beliefs about obesity, its causes, and the need for treatment may vary based on sociocultural factors, such as race, ethnicity, and sex (48,49). For example, several studies suggest that African American/Black individuals may be more accepting



Figure 2—AHRQ SHARE Approach of SDM (35).

of a larger, curvier body size than are White individuals, which may impact treatment interest and goal setting, as discussed in a review by Lofton et al. (48). Similarly, investigators in a recent review found that men tend to express less body dissatisfaction, be less interested in weight loss, and be less likely to seek out obesity treatment in comparison with women (49). Providers should be aware of the potential presence of these beliefs and their possible impact on conversations about treatment (50).

Some patients may also experience challenges in engaging in the SDM process itself, as discussed in several narrative, scoping, and systematic reviews (18,21–23,25,48). These challenges may be most pronounced for patients from marginalized groups, many of whom are disproportionately impacted by obesity and type 2 diabetes (1,51). Factors elucidated in prior studies that can reduce interest or engagement in SDM include a perceived power differential between patients and providers (22,23,25), medical mistrust (23,25,48), and patients not recognizing the valuable contributions they can make to decisions or not knowing how to collaborate on decision-making with providers (18,22,23,25,48). Patients facing more structural and environmental barriers (e.g., lack of access to grocery stores or pharmacies) may also have dampened interest in SDM conversations if they assume certain treatment options

will not be feasible (48). Additionally, while SDM primarily emphasizes dyadic decision-making between patients and providers, some patients may want the input of family, friends, or community members (23,25).

Given these barriers, some patients may find an “informed decision-making” approach helpful, in which information on treatment options is provided but less emphasis is placed on patients and providers working in partnership for care decisions. Instead, patients make decisions more autonomously or with their loved ones and then collaborate with their provider to execute their desired plan for care. Involving family members in SDM can also facilitate greater SDM satisfaction (25).

Provider- and System-Level Influences

A recent rapid scoping review with 216 studies identified several prominent barriers to effective obesity management at the provider and system level (52), many of which also impact SDM (Fig. 3). Two additional barriers are also important: shared versus differentiated treatment focus and the quickly changing treatment landscape. Figure 3 depicts the various provider- and system-level barriers.

Treatment Focus: Obesity Versus Type 2 Diabetes

While there is agreement that treating obesity improves type 2 diabetes, debate remains over how best to address

obesity in the context of type 2 diabetes management. Some professional organizations and experts advocate for making obesity a primary treatment target, encouraging a “treat obesity first” approach; others emphasize obesity treatment as part of a more comprehensive treatment plan (4,32,53). Endocrinologists, general internists, family medicine physicians, and others managing treatment of type 2 diabetes may not see obesity management as within their scope of care or feel well equipped to address it (52,54–56). (See ADDITIONAL HEALTH CARE PROVIDER FACTORS below.) Further, some providers may put more emphasis on diet quality (e.g., glycemic index, carbohydrate counting, nutritional value), which is less likely to impact weight than a focus on the quantity of calories consumed, regardless of macronutrient source (57).

Some of this lack of consensus likely stems from obesity only recently being recognized as its own disease—and not simply a risk factor for other diseases (6). The enduring challenge of effectively treating type 2 diabetes while not promoting weight gain likely also contributes. Prior to the development of medications like GLP-1 receptor agonists, weight neutrality was often viewed as a treatment success for medication-dependent patients with diabetes (58). Several guidelines from the past 5–10 years encourage the use of weight-reducing medications for type 2 diabetes whenever possible (2); however, use of weight-inducing medications (e.g., insulin, sulfonylureas, thiazolidinediones) remains high (58).

Questions about how obesity treatment fits into type 2 diabetes management may lead patients to conflate treatments for these conditions or believe that successfully managing type 2 diabetes will adequately treat obesity or at least promote weight maintenance. While MBS profoundly and positively impacts both conditions (30), other type 2 diabetes treatments (e.g., insulin, sulfonylureas, dietary change for glycemic control) are unlikely to address obesity. These potential areas of misunderstanding highlight the importance of ensuring that patients and providers agree on treatment targets and are aligned in their understanding of what treatment option is being used to target which clinical outcomes when engaging in SDM.

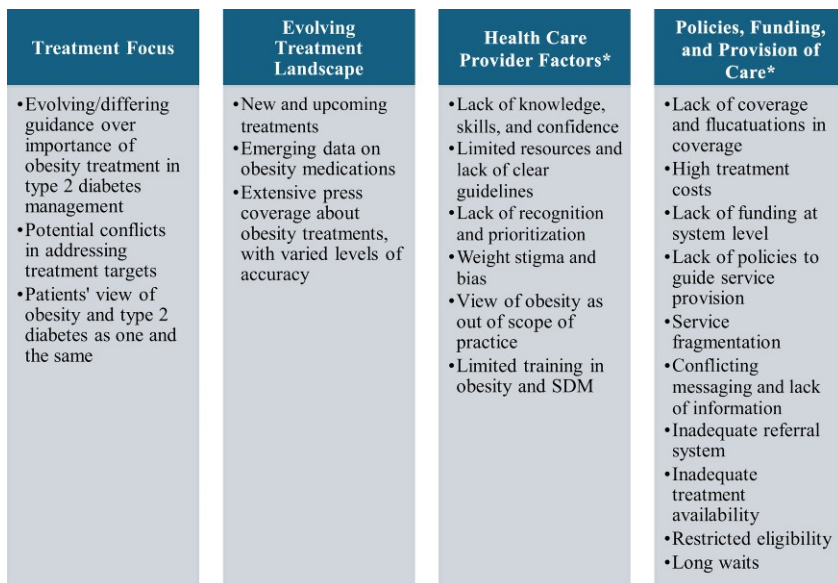


Figure 3—Barriers providers may encounter around obesity treatment decision-making and care delivery. *The last two depicted barriers and several related subbarriers were identified through a scoping review by Mekonnen et al. (52).

Changing Obesity Treatment Landscape

On an almost weekly basis, new peer-reviewed publications show the benefits of newer obesity medications for a range of obesity-related comorbidities. Further, more treatment options, including new medications with different mechanisms of action and endoscopic procedures, are in the queue for review and possible approval by the U.S. Food and Drug Administration (59). These developments may create knowledge gaps for treatment providers with demanding clinical loads that limit the time available to keep apprised of a rapidly evolving treatment environment (60).

Patients may also hear about new treatment options or supposed benefits of certain agents and come to an appointment requesting a specific treatment—one that may or may not be likely to benefit them (61). For example, a patient may see a social media influencer talking about an inexpensive, compounded version of a GLP-1 they purchased online and come to the doctor requesting the medication. The rapid rate of innovation in obesity treatment, coupled with the extensive mass media coverage, increases the complexity of treatment decisions and the number of sources from which patients may be getting information. At the same time, the expanding suite of treatment tools underscores the potential value of SDM.

Additional Health Care Provider Factors

Many providers lack knowledge, skills, and confidence in treating obesity and discussing weight with patients, as highlighted in recent reviews and observational studies of self-reported data (42,52,55,62,63). Many also perceive a lack of clear guidelines for assessing and treating obesity (52,56). Due to these factors and others, including the key factors of competing clinical issues and time constraints, obesity is greatly underdiagnosed and its treatment often not prioritized (42,52,55,56,64). As with patients, weight bias and stigma can impact providers as well; providers may be hesitant to bring up weight due to its sensitive nature or be under the erroneous impression that most patients do not want to discuss or are unmotivated to lose weight (41,42,56,64). For example, in a multinational survey of >2,700 health care providers and >14,500 patients with obesity, only 31% of providers perceived their patients to be interested in losing weight and 71% reported a perceived lack

of patient interest in weight loss as a top reason for not bringing up weight. Yet, 81% of patients had recently tried or were considering trying to lose weight, and 65% and 77% wished that their providers brought up weight or were glad that they did, respectively (41).

Many of these barriers likely stem from the limited training many health providers receive about obesity during medical school or residency (65,66). The same is true for SDM (26). Providers report particular knowledge gaps about treatment options beyond lifestyle modification (i.e., medications and MBS), likely contributing to less discussion and use of these treatments (34,41–45,52,56,60,62,63). This is true even among endocrinologists (56). However, of the practitioners of subspecialties, endocrinologists appear more likely to use a chronic care model—a multicomponent approach for improving ambulatory care focused on efforts like educating and supporting patients and making care more team based (67)—and a broader range of treatments for obesity (64,68). Still, many knowledge and practice gaps remain (40,56,63,64,68). Providers may find SDM difficult amidst these challenges.

Funding, Policies, and Provision of Care

Providers treat obesity and help patients make care decisions within the context of a broader health ecosystem—one that can at times complicate care provision. Treatments may be poorly covered by health insurance, subject to strict preauthorization criteria, or require prohibitively high co-payments from patients (52,69,70). Treatment without insurance may be unaffordable for many.

Similarly, there is often limited funding for comprehensive obesity care at the local, state, and national level, and, historically, policies to guide service provision have been lacking (52). As a result, care is often fragmented (26,52), which can make referral processes more laborious and make it harder for providers to know what treatment resources are available and how to connect patients to them (26,42,52). Further, some treatment options (e.g., newer medications) may be unavailable within certain health systems or regions and there may be long wait times or strict eligibility criteria (42,52).

Together, these system-level factors can truncate the range of treatment options that are considered during SDM

and complicate SDM efforts. As a result, SDM may be less effective or there may be less interest in engaging in SDM at all.

PREVIOUS EFFORTS TO ENHANCE SDM

Efforts have been made to promote SDM for obesity through targeting patients, providers, and/or health systems (19). Some of this work has shown promise, as described below. However, in many cases, difficulties have been encountered in moving SDM efforts forward at scale in pragmatic settings due to the challenges cited above. Additionally, much of this research was conducted before the emergence of newer medications, was focused on more narrow treatment options, and was not focused specifically on populations with co-occurring obesity and type 2 diabetes. A high-level overview of research aiming to advance SDM for obesity is provided below, with emphasis on illustrative studies conducted in the past decade (26,71–87).

Patient Decision Aids

One method that has been tested to support SDM is patient decision aids. The aim of these tools, which can be offered in multiple formats (e.g., print, Web-based, video), is to provide evidence-based information about treatment options and guide patients in evaluating what is important to them and developing treatment preferences (88). As detailed in several large reviews (88,89), patient decision aids have been shown to improve patient knowledge, increase the accuracy of risk perceptions, and help patients assume a more active role in decision-making, without adversely impacting system-level outcomes or clinic visit length.

Table 1 outlines several decision aids for obesity management that have been tested; depicted studies were focused primarily on decision aid testing rather than more comprehensive SDM efforts. Most decision aids have focused on decision-making for MBS (74–76). Some studies have demonstrated promise for utility (Table 1). However, most have been early-stage, smaller-scale projects with methodological limitations, making it hard to discern likely effects with delivery at scale (74–77). Clinician feedback was obtained on decision aid use in only one study (77). At least one fully powered trial of an educational

Table 1—Recent research testing decision aids for obesity management

Article	Decision aid focus	Population, setting, and design	Selected findings focused on decision quality, feasibility and acceptability, and/or decision choice
Decision aids tested in peer-reviewed publications			
Arterburn et al., 2011 (74)	Whether to have MBS	Adults (<i>n</i> = 152) in a single health plan who met eligibility for MBS. RCT of a video-based decision aid (intervention) vs. educational booklet (control)	Improved decisional quality and reduced uncertainty, especially in intervention group. No differences in MBS choice.
Brown and Deighton, 2013 (77)	Whether to initiate obesity treatment and, if so, what type	Patients (<i>n</i> = 18) and nurses (<i>n</i> = 5) within an urban general practice. Open trial	Decision aid well-liked by patients and clinicians (to a lesser degree). Feasible and acceptable for implementation in routine practice.
Lee and Wu, 2019 (75)	Type of MBS procedure	Patients (<i>n</i> = 103) seeking MBS at a single hospital. Open trial	High satisfaction with decision aid and decision.
Nijland et al., 2023 (76)	Type of MBS procedure	Adults (<i>n</i> = 238) who underwent consultation for MBS. Comparative cohort study of Web-based decision aid (intervention) vs. no decision aid (control)	Lower decisional conflict in the intervention group. No other group differences observed (e.g., patient knowledge, SDM).
Publicly available decision aids without peer-reviewed data			
Healthwise, The Ottawa Hospital Research Institute, 2021 (98)	Whether to use a diet to lose weight	NA	NA
Healthwise, The Ottawa Hospital Research Institute, 2021 (99)	Whether to use obesity medications	NA	NA
Healthwise, The Ottawa Hospital Research Institute, 2021 (100)	Whether to have MBS	NA	NA

NA, not applicable.

video to promote informed decision-making is currently underway following promising pilot findings (78,79). To our knowledge, no obesity decision aids have focused exclusively on patients with co-occurring obesity and type 2 diabetes—an important limitation given different treatment considerations.

Provider Training and Provider-Oriented Tools

Efforts to enhance SDM at the provider level have been focused primarily on two areas: 1) developing clinical decision support (CDS) systems for use at point-of-care (71,80,81) and 2) training providers on effective, person-centered techniques for discussing obesity and developing treatment plans (82–85).

A 2025 scoping review of electronic health record–based CDS systems for obesity in primary care identified eight studies published between 2009 and 2024 on the topic (71). The two most

common features of these systems were 1) using BMI to identify patients with overweight or obesity and 2) suggesting treatment strategies. All systems that provided treatment recommendations provided suggestions for lifestyle modification. Fewer provided recommendations for medications or MBS. Clinician education on using the CDS system was also rare, a factor that likely contributed to providers frequently reporting difficulties using the CDS system and low uptake of it. More recent work has included attempts to address these shortcomings, including through better integration with the clinical workflow (80). Fewer studies have included evaluation of CDS systems for patients with obesity and type 2 diabetes. However, an obesity-focused CDS system that provides specific estimates of the risks/benefits of different treatment options among patients with type 2 diabetes was recently developed and is now being tested (81).

In multiple studies investigators have also tested provider training for obesity assessment and counseling. For instance, a “5A” (Assess, Advise, Agree, Assist, Arrange) or “6A” (Ask, as the first step) approach is often recommended and used (82). Some data support the utility of this approach (83,84), and the 6A model can serve as an easy guide for sensitively fostering weight-related conversations (55,85). However, this approach has also been criticized as potentially too simplistic and for not inherently guaranteeing SDM (90). As with other areas above, management of obesity specifically in patients with type 2 diabetes has not been a primary focus of this work.

Multilevel Approaches for SDM for Obesity Management

Investigators in several studies have evaluated multilevel approaches for fostering SDM. For example, one large, pragmatic study included development and testing

of a suite of 12 tools for providers and patients based on the 5A model with the aim of improving SDM, and the tools were integrated into a large primary care network (72,73). This approach was not found to be effective in increasing nurse visits for obesity management (the study's primary outcome) (86). However, the approach yielded important insights into several factors that affected intervention uptake by the nurses, such as provider confidence in addressing obesity (86).

More recently, Arterburn et al. (26) conducted a pragmatic, multilevel trial in two health systems with the aim of increasing the facilitation of SDM around MBS decisions. Primary results are forthcoming. Initial data showed that providers and other stakeholders experienced multiple barriers to SDM, including key barriers at the organizational level (e.g., lack of organizational prioritization of SDM). Despite this, many patients seeking MBS reported moderate or high levels of SDM-related processes (87). These findings highlight some of the difficulties of systematizing SDM at scale in pragmatic settings. At the same time, these findings suggest that some patients perceive engagement in SDM even in the absence of formal SDM efforts.

CONCLUSIONS

SDM is increasingly recommended for obesity management in type 2 diabetes (2,12,13)—a major stride toward person-centered obesity care. However, many patient-, provider-, and system-level factors have restricted its implementation and effectiveness, as described above. In previous research investigators have attempted to address several of these challenges through developing and testing SDM tools and trainings (26,71–87). Although data highlight potential of many of these approaches, they also reveal difficulties associated with integrating these resources into the clinical workflow, ensuring that clinicians and health systems perceive utility in these resources and actually use them, and overcoming the wide range of factors that can stymie optimal SDM (26,52,71,80,86). For example, provider time constraints and reimbursement issues may pose continued challenges even with improved SDM training and resources; these barriers may be especially pertinent in the treatment of patients with both obesity and

type 2 diabetes, as providers must manage multiple concerns (e.g., glyce-mic control, diabetes-related complications, obesity) during visits (42,52,64,81). The quick rate of innovation in the field only adds to these challenges. As a result, concerted, multilevel efforts will be needed to translate recommendations for SDM into practice.

Providers have a key role to play in facilitating SDM for obesity (2,8,15). Recognizing this, providers can take practical steps to more fully integrate—or reaffirm—an SDM approach in their clinical practice, shown in Fig. 4. These steps include building or refreshing their knowledge about obesity and SDM; using resources, evidence-based person-centered communication skills, and approaches like motivational interviewing to enhance patient engagement in decision-making and care (91); and advocating for the prioritization of comprehensive obesity care and SDM at large to create a

landscape more conducive to these goals (92). Several resources for advancing these goals are also included in Fig. 4.

Also imperative is addressing system-level barriers that hinder effective SDM. Key among these are limited treatment access, inadequate obesity education for medical professionals, unclear roles and referral pathways, and scheduling and reimbursement issues (42,52,62–66). Until treatments are readily available to more patients, from both a financial and service provision perspective, SDM must occur in a constrained manner where patients' lists of realistic treatment options may be limited. Calls for improved access are not new (93) but are arguably more important than ever as treatment options expand. Improved training in obesity for health professionals is needed to arm them with the knowledge, skills, and confidence to effectively treat obesity and facilitate SDM among patients with type 2 diabetes (62,65,66,92). Given current

Obesity-related knowledge - topics to ensure knowledge of

- Current obesity treatment guidelines
- Strategies for effectively and sensitively discussing
- Efficacy and safety of obesity treatment modalities
- Weight stigma and ways to practice bias-free care
- Strategies for effectively and sensitively discussing obesity/weight
- Potential sociocultural influences on obesity perception, weight loss interest, etc.

SDM-related knowledge - topics to ensure knowledge of

- Tenets of SDM
- Evidence-based strategies for effective SDM and person-centered communication
- Potential sociocultural influences on medical trust, patient self-advocacy, and interest in SDM
- Importance of informed decision-making outside clinical context for some patient groups

Resources to consider having on hand

- **Treatment resources**
 - Patient-facing resources about obesity^a
 - Information about obesity medicine specialists^b
 - Information on treatment resources in your clinic and health system
- **Decision-making resources**
 - Patient decision aids, including those that are freely available^c
 - Question banks to facilitate patient engagement in SDM

Strategies to encourage SDM engagement

- Invite patients into decision-making
- Be compassionate
- Emphasize value of patients' perspectives
- Acknowledge and normalize impact of patient beliefs on decisions
- Avoid jargon
- As desired by patient, invite others (e.g., family) into decision-making
- Use tools to support patient learning and deliberation
- As appropriate, use evidence-based approaches like motivational interviewing to enhance engagement in care

System-level efforts - Potential advocacy targets to improve obesity care landscape & SDM culture

- Encourage the prioritization of obesity identification and treatment within your practice and health system
- Advocate for better coverage for obesity treatments at large^d
- Advocate for SDM training and system-level support

Figure 4—Strategies providers can use to advance SDM for obesity in their current clinical practices. ^aIncludes resources like the Obesity Action Coalition website (<https://www.obesityaction.org>). ^bThe American Board of Obesity Medicine provider locator tool may be helpful (<https://abom.learningbuilder.com/Search/Public/MemberRole/CertificationVerification>). ^cExamples include the decision aids available from HealthWise (98–100). ^dOrganizations like the Obesity Action Coalition can identify advocacy avenues.

educational gaps, as well as the rapidly shifting treatment landscape, improved training is likely warranted across the career spectrum (92). Topics should include not only obesity pathophysiology and general treatment options but also specific treatment considerations for patients with type 2 diabetes and weight bias and stigma (46,50,92). Policies or guidelines that clarify the responsibilities of primary care versus specialty care providers (e.g., endocrinologists); clearer, more streamlined referral pathways; extended appointment times for complex patients; and enhanced billing for obesity care may also help create an environment more conducive to SDM (50,52,54).

There are several innovative pathways for advancing SDM efforts (94–96). Artificial intelligence tools may serve as conversational agents to facilitate provider training or automate certain SDM processes (94). These tools could be especially helpful for providing “SDM-like” experiences for patients otherwise reticent to engage in SDM or for tailoring SDM interactions to patients with type 2 diabetes, although this has yet to be tested. Machine learning methods may help providers to better personalize treatment recommendations (95). Methods from commercial marketing may help to pinpoint top influences on decision-making and craft effective messaging around treatment options (e.g., messaging emphasizing the benefits of newer obesity medications and MBS for type 2 diabetes management) (38,97). Use of patient navigators or collaborative care teams (e.g., nurses, pharmacists) to initiate SDM and guide patients through its initial stages has supported the dissemination of SDM in other areas and may also prove effective here (96). From a research perspective, more research is needed with a specific focus on decision-making for those with co-occurring obesity and type 2 diabetes and populations that may experience additional hurdles to engaging in SDM with providers (22,23,25,36). Collaboration among diverse stakeholders (e.g., researchers, providers, patients, payers, administrators) will be critical across these efforts to ensure scalability and adoption (24,26,71).

In conclusion, increased emphasis on SDM for obesity from professional societies (2,12) is consistent with the spirit of person-centered care. However, SDM’s full benefits are unlikely to be achieved

without additional training, support, and system-level change. Understanding common barriers to SDM, as well as potential avenues to overcome them, can help clinicians prepare to facilitate SDM in their clinical practice in the interim. Data on SDM barriers and potential solutions can also drive broader efforts to create systems more conducive to SDM and comprehensive obesity care.

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