



# HHS Public Access

Author manuscript

*Fam Community Health*. Author manuscript; available in PMC 2018 July 02.

Published in final edited form as:

*Fam Community Health*. 2017 ; 40(3): 245–252. doi:10.1097/FCH.000000000000155.

## Priorities and Preferences for Weight Management and Cardiovascular Risk Reduction in Primary Care

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### Abstract

Implementing behavioral interventions for cardiovascular risk reduction and weight management is challenging in primary care. Primary care patients and providers were recruited for qualitative interviews to identify priorities and preferences for addressing weight management. Thematic analysis was used to identify relevant resources, barriers to lifestyle modification, health behavior change, and implementation of weight management strategies into care. Patients and providers prioritized increasing physical activity and healthy diets when managing chronic disease; and reported decreased patient motivation, knowledge, and limited organizational capacity and time among providers to deliver intensive interventions. Providers and patients disagreed regarding who owns accountability for weight management.

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The authors declare no conflict of interest.

## Keywords

cardiovascular; health promotion; overweight; primary care; weight management

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The high prevalence of obesity and overweight in the United States requires solutions to decrease risk factors for cardiovascular disease, diabetes, and other chronic diseases, which increase mortality and costs of health care. Data from NHANES 2011-2012 indicated that the prevalence of obesity, defined as a body mass index (BMI) of more than 30, is 34.9% of all adults. Minority subgroups had higher prevalence of obesity: 42.5% of Hispanics and 47.9% of blacks.<sup>1</sup> Obesity disproportionately affects minority women; 44.4% Hispanic women were classified as obese and 56.9% of black women, as compared with 32.8% of white women. Obesity significantly increases risk for development of several chronic conditions such as diabetes; projections of prevalence by 2050 suggest that 33% of US adults will have diabetes if current incidence of obesity continues to increase.<sup>2</sup> Obesity costs approximately \$147 billion in excess medical costs and up to \$66 billion in reduced productivity for adults.<sup>3</sup>

Lifestyle and health behaviors such as increasing physical activity and maintaining a healthy diet have been promoted to reduce risk factors for cardiovascular disease, diabetes, stroke, and cancer, yet the evidence for sustaining such gains from weight management (WM) interventions suggests that less is known about what can improve the delivery of WM interventions. Strong evidence from the 2013 American College of Cardiology/American Heart Association/The Obesity Society guidelines recommends advising obese and overweight patients to participate in a comprehensive lifestyle intervention of greater than 6 months and using behavioral strategies to assist adherence to lower calorie diet and physical activity.<sup>1</sup> The Diabetes Prevention Program has shown promise in preventing or delaying type 2 diabetes and focuses on lifestyle changes in people with prediabetes.<sup>4</sup>

Screening for obesity and providing and/or referring to intensive, multicomponent behavioral interventions is recommended by the US Preventive Services Task Force,<sup>5</sup> and financial reimbursement is provided to cover these costs for some patients.<sup>6</sup> Yet, only 42% of patients report that providers perform weight loss counseling.<sup>7,8</sup> Shared decision making (SDM) is essential for effective WM; however, many providers do not feel confident or knowledgeable enough to provide education or counseling about lifestyle behavior changes,<sup>9,10</sup> especially in settings where resources are limited, and patients experience multimorbidities. Primary care barriers to intensive lifestyle counseling include insufficient time and inadequate compensation for comprehensive WM interventions,<sup>10-12</sup> along with perceptions of patients lacking motivation, discipline to change lifestyle behaviors, and limited knowledge of what a healthy lifestyle entails.<sup>11</sup> To inform lifestyle modification and health behavior change counseling strategies in primary care settings, this study examined patient and provider priorities and perspectives regarding the delivery of lifestyle modification and health behavior change counseling for WM.

## METHODS

### Design

This qualitative descriptive study was designed to learn the perspectives of primary care stakeholders related to improving WM screening and referrals to intensive behavioral counseling and lifestyle programs. To inform intervention development for primary care practice WM approaches, we focused on current practice, barriers and facilitators to WM interventions, and resources in the community. Key informant interviews were used to develop an understanding of provider experience with WM interventions. Focus group interviews were used to gain the perspectives of persons with overweight and obesity on WM interventions or recommendations for lifestyle behaviors from the practice. This research was approved by the Institutional Review Board at Medical University of South Carolina, and all of the interviews were conducted after informed consent was obtained.

### Participants

We (CHH and LSN) conducted patient focus groups and semistructured interviews with practice key informants. Our backgrounds included expertise in health disparities, cancer control and health behavior change, and qualitative evaluator perspective in primary care practices within a practice-based research network. The Primary Care Practices Research Network (PPRNet) is an academic and community network of practices that have volunteered to submit electronic health record data from the practice for benchmarking, quality improvement, and participation in research projects. PPRNet has its academic home at the Medical University of South Carolina, and the practice members represent small to medium size primary care practices in urban, small cities, and rural areas throughout the United States. This background enabled us to interact with the providers and patients in these practices with an understanding of barriers of the providers, and insight from health disparities research to frame our interpretations. Patients from 6 primary care practices within the PPRNet practice-based research network were recruited to participate in a 60- to 90-minute group interview. Eligible participants were patients at the practice for at least 3 years, with a BMI more than 25. Participant characteristics are shown in Tables 1 and 2. Flyers were posted in practices for individuals to self-refer for participation in the focus groups. Following referral, we obtained verbal consent to conduct a screening interview to assess race, ethnicity, gender, age, residency, and how long participants have been a patient in the practice as well as to confirm their BMI status. Those who participated in the focus group received a \$25 incentive.

### Data collection and analysis

Semi-structured interview guides were used. All of the interviews were audiotaped and sent for professional transcription. Transcripts were uploaded to a secure network server, without personal identifiers, and then imported into NVivo 10.0 (QSR International, Pty., Doncaster, Victoria, Australia) for qualitative analysis. Transcripts were coded independently in NVivo by 2 authors; a third author confirmed all identified concepts. A hybrid analysis was used consisting of deductive coding of a priori concepts related to the questions, and an inductive cycle to capture new ideas.<sup>13</sup> In addition to the independent coding, the entire research team reviewed each transcript and participated in immersion/crystallization discussions related to

each practice's experience, assets, resources, barriers, and facilitators to ensure relevant points were captured.

Four key questions were explored among practices/providers: (1) what is the practice's current priority and process for WM, (2) what local resources are available to the practice to support weight loss interventions, (3) what are the practices' existing provider and staff assets, and (4) what are the practices' existing provider and staff barriers? Patient questions included: (1) what kind of weight loss advice do patients want, (2) what are some patient barriers to following through on recommendations from providers, (3) what are some patient facilitators to following through on recommendations, and (4) what types of information/support do patients want from providers/practices?

## RESULTS

Sixty-three patients from 6 primary care practices and 29 health care providers from 8 practices participated in the study. Practice characteristics are shown in Table 1. Sociodemographic characteristics of participants are provided in Table 2. The participants represented a broad view of primary care practice in the United States, with representation from rural and urban/suburban areas, underserved as well as more affluent communities.

A list of barriers and facilitators to adopting and implementing WM recommendations from the perspective of providers and patients is provided in Table 3. Discordance in what patients need or want as support for WM and what providers and their practices offer was reported. Examples of these factors are included in Table 4. Patients and providers agreed about the importance of an intervention that addresses diet and physical activity to manage chronic conditions. Patients and providers also identified similar barriers to implementing interventions to address these behaviors: lack of patient follow-through, and knowledge and limited capacity among providers and practices to deliver an intensive WM intervention that kept the patients on a path to weight loss.

The following themes highlight the key issues to be considered in development of a stakeholder informed, evidence-based intervention to improve WM.

### Providers' frustration with addressing an important priority

Although the providers agreed that obesity and WM were a high priority for their practice, some did not address it systematically. A provider in rural practice serving poor patients commented: "When my patients come in that have obesity, I try to address it every time ... I probably don't every time ... I congratulate them if they lost some weight ... if they're not losing weight, why are they not losing weight, what can we do to change that."

Some providers did not see much patient success at weight loss; a provider serving the rural poor stated, "My expectations that the patients are going to follow through is pretty much at 0." Low expectations were noted as provider and staff barriers, with providers expressing frustration with patients' lack of progress toward the goal of weight loss. A provider at a clinic working with uninsured, poor Hispanic and black patients explained, "I've been seeing them for four years and tell them the same thing every time, and their weight has not

gone down, but gone up.” Frustration reflected back on the provider as well: “My expectations for change are minimal... so there’s not a lot of positive feedback to me ... based on the time that I put in to try to effect change.”

### **Patients do not feel providers supportive on weight management**

Patients viewed their providers as both helpful and not consistently supportive. When providers had one-on-one conversations with patients and demonstrated interest in exploring barriers, the response from patients was positive. A patient from a clinic where many patients were morbidly obese said: “I just like having a doctor who listens to me.” Another from a clinic serving poor, uninsured patients said the provider told him that WM is “not just a diet plan. It’s not a quick fix. It’s not something that you’re going to be doing just to get into that bathing suit over the summer. This is something that you’re going to be doing for the rest of your life. Do something that’s going to make you happy and something that you can stick with...And I’ve never had a doctor break it down for me like that, ever.”

In contrast, patients found that providers could be more helpful in offering specific advice about weight and lifestyle. A patient from a small clinic outside a major metropolitan area said: “...[it’s] not very helpful to say to somebody ‘You need a lot to do with your current lifestyle and the way you’re headed’ ... You need to tell them how.” Tact was also missing in some provider/patient interactions around weight: “It’s just, first impression is everything. And doctors just see you are a large person, and the first thing they want to start talking about before they even ask you why you’re there ... is weight loss.”

Patients also noted the irony in providers giving them health advice: “A buddy of mine ... skinny as a rail, wanted to go see his doctor, and his doctor weighs maybe 300 plus. And to have your doctor sit across from you and go, ‘Yeah buddy, you need to lose a couple pounds’ ... Let’s lead by example.” Another patient from a clinic where many patients were morbidly obese said: “I went to a doctor one time, and [he] chewed me out about how big I was, and he was as big as I am. You know, it doesn’t take too good when a doctor’s chewing you [out], and he’s got a pack of cigarettes.”

### **Providers perceive many patient barriers**

Some providers mentioned patients lacked willpower and motivation. Such interpretations were tempered by the recognition that patients experienced stress, eating disorders, and other barriers that prevented their maintaining a WM regimen. One provider who served patients outside of a major metropolitan area noted that patients feel “a sense of hopelessness, about their health care. ... they’ve tried their best, but in the end they don’t feel they have the resources to make the change. There are barriers to improvement. And some of those are internal, some of those are external.” Another provider offered: “They focus on the barriers.... part of that is helping them to see that even though they have some barriers [and] ... you can’t do this, but you could do that.”

A provider at a clinic working with poor Hispanic and black patients explained that relationships are key to behavior change: “The longer I had a relationship with those patients, the more did I see changes over time.... gaining a doctor-patient rapport relationship first was helpful.” The provider at the teaching residency clinic pointed out that

patients will not change until they are ready for it, despite doctor's efforts: "It all comes down to: Is the patient ready to walk through a little pain and suffering to get there? None of this is easy."

### **Patients experience numerous barriers**

Patients concurred that they had trouble following WM advice, but not necessarily due to lack of will power or motivation. The barriers they experienced included stress, finances, lack of time, and the demands of life that compel patients to put healthier behaviors aside: "But sometimes life just doesn't allow [exercise] with the day-to-day activities... For me almost everything comes to time management and struggling with that, because I work typically five days a week." Lack of time due to caring for family members takes its toll on patients' good intentions; a patient from a clinic serving the rural poor said: "I walked when I was pregnant for exercise, and then as I began to age and started taking care of his parents and my parents and everybody else but myself, I quit walking, and here I am." A patient from a suburban practice explained her stress: "I have a lot of stress, not so much on my job, but I have elderly parents, I have young children, I have a sibling that has cognitive disabilities, so I'm helping everybody and it's hard for me to help myself." The same struggles faced patients in a clinic serving the rural poor: "You have a spouse, two kids to worry about. You got bills to pay ... you have to do what you can. And trust me, working third shift and then trying to get out and walk is virtually impossible. Cause you ain't got the oomph."

Family dynamics also played a role in how well patients can follow through on dietary advice. Spouses can cause stress around dieting: "...I stress myself out because my husband likes me better bigger." A patient from a clinic with many obese patients told interviewers: "When I did lose 95 pounds my husband, I don't know if he felt threatened or what, but he did say that my butt was too bony. ...Now he has left me, and we're divorced after 35 years." A patient from a clinic serving a very rural, poor area said: "My husband is 6 foot three and weighs 350 pounds. When I try to cut back on portions, there's 'Golly! You don't bring me nothing else ...now'. You complain about you[r] weight and then when I bring you what is considered a portion, you know, I'm not sure how to incorporate [dieting] to keep peace."

### **Cultural differences related to weight management**

Providers shied away from assigning race/ethnicity to the question asked about differences in readiness to make behavior change or in types of struggles around weight, choosing instead to talk about economic status. Yet, cultural subthemes emerged such as providers and staff's use of language and expectations around obesity as well as patients' acceptance and challenge of cultural norms around weight. A provider at clinic serving the rural poor discussed how staff should discuss patients' weight and weight loss with nonjudgmental language. The provider also noted the need to challenge cultural norms; calling an obese child cute is not helpful: "Hey, little Johnny's overweight, and it's not really cute, it's a problem. We need to ...address it. So how do you get them to stop pinching cheeks and let them know, hey, he is a cute kid, but we need to be a little healthier weight. So how do you ... Raise the bar, as far as we want healthy and not necessarily what did daddy look like



when he was that age?” From the patients’ perspective, cultural attitudes around weight ranged from self-identifying as obese and not challenging that identity to being aware that cultural practices that worked in the past were not serving people today. A patient at a clinic for the very rural poor in the Southeast explained her view of herself: “I’ve been obese all my life growing up as child that was always too big for my age. I always ate what I wanted to eat. But I’ve just been humongous all my life even my other sisters and brothers, they were normal... Say it’s hereditary. My grandmother was a big lady and, and I’ve been big all my life.”

A patient at a clinic serving uninsured Hispanic and black patients looked at cultural heritage skeptically: “I think in our culture we need to [learn] what is the best way to eat healthy...Because we are accustomed to eat, lots of carbs in our country, but we walk a lot over there. We don’t have transportation. And here, it’s a different way because most of the time we are sitting on the car, or sitting at home, watching TV. And I see, when I go to the supermarket especially Mexican places, I see the values. My people take a lot of sugar, cookies, bread ... Yes, and they feed the kids that. Here, I’m learning to read the labels of the food. Before I never was interested. I never cared because for me it was food and that’s it. I didn’t [know if] it’s healthy or not healthy. But now I know what is the best choice.”

## DISCUSSION

The purpose of this study was to examine patient and provider perspectives about WM in primary care. Obtaining these preferences among both patients and providers is an innovative aspect of our study, consistent with an SDM approach. Critical components of SDM include discussions during which patients and providers share information about symptoms and treatment options; deliberation about alternative options and consideration of patients’ concerns and preferences; making decisions based on the provider’s recommendation and the patient’s self-efficacy and their ability to implement the treatment plan.<sup>14</sup> An important first step to SDM in primary care is understanding the extent to which patients and providers have similar views about strategies for disease management, especially those that involve health behavior change. We used the principles and strategies from community-based participatory research<sup>15</sup> to engage providers and patients using key informant interviews and focus groups, respectively, to understand their preferences about strategies for WM in primary care.

We found that both patients and providers described WM as a top priority for primary care and wanted to address diet and physical activity to manage chronic conditions. Patients and providers also identified similar barriers to implementing interventions to address these behaviors: lack of patient motivation and knowledge and limited capacity and knowledge among providers to deliver intensive interventions. Furthermore, both patients and providers suggested that tailored interventions are most likely to be effective, but resource constraints in the practice were potential barriers to implementation of these types of programs. Despite concordance in preferences for diet and physical activity interventions between patients and providers, there was disagreement about how the effects of these interventions should be monitored. Patients wanted to be held accountable to providers, but providers wanted patients to be accountable to themselves. Discordance between patients and providers about

who should be accountable for monitoring health behavior and lifestyle changes may lower SDM about weight loss efforts, but could be addressed through practical approaches in which patient's capability for making these changes is determined prior to making specific recommendations about WM.

Previous research has shown that the beliefs providers have about the reasons why patients are overweight or obese influence the type of recommendations they make about WM strategies.<sup>16</sup> Determining a patient's capability for health behavior change is based on an approach that emphasizes the actions and behaviors that individuals can actually do, their perceptions of the resources that are available in their community to support behavior change, and what they believe about the likelihood of being able to access them.<sup>17,18</sup> Ferrer and colleagues<sup>17</sup> demonstrated that the resources available for dietary behaviors were less predictive of intentions to eat a healthy diet relative to conversion factors that included barriers to and knowledge about healthy eating and having the time to prepare healthy meals. Both activity resources and conversion factors (eg, barriers, knowledge, and time), however, were significantly associated with intentions to be physically active. Assessing a patient's capability for lifestyle modification and health behavior change could facilitate SDM about WM between patients and providers as well as target their time and effort to the resources that could be activated while targeting barriers to lifestyle modification and health behavior change.

There are some limitations of this study to be noted. First, this study was designed as a formative stakeholder engaged evaluation of patient and provider perspectives on WM in primary care practices that are members of a practice-based research network. We recognize that the perspectives of patients in the settings may reflect experiences of working with practices that are oriented toward implementing best practice, evidence-based guidelines and improving quality. Likewise, the providers in practices reflect this bias toward quality and evidence. Second, some of the patients in our patient focus groups may have attended the group to give voice to a personal experience of being marginalized by stigma related to obesity, and frustrated by challenges. This may have affected who volunteered to participate in the study. However, we believe that we have a diverse sample of participants representing multiple states, urban/suburban, and small town (urban cluster) settings, and economic variations. Although qualitative research is not designed to be generalized, a strength of this research is its broad perspectives of a nationally representative sample.

## CONCLUSION

This study emphasized the importance of actively engaging patient and provider stakeholders in efforts to develop interventions that address WM in primary care. Patients and providers were generally in agreement regarding the behaviorally focused interventions, and barriers and facilitators to implementation; there may be discordance in terms of how the effects of interventions are monitored. Efforts to disseminate and implement evidence-based interventions into primary care should consider the preferences of both patients and providers.



## Acknowledgments

This research was supported by the Agency for Health Care Research and Quality grant #U18HS023047 and grant #CIN 13-410 from the Veterans Administration Health Services Research and Development.

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**TABLE 1**Practice Demographics<sup>a</sup>

Region/State	Practice Type	Locale	Total Providers	Total Patients
Southeast				
Georgia	Nonprofit health care for uninsured patients (FQHC)	Suburban	4	4327
Tennessee	Private family practice	Urban cluster	2	5510
South Carolina	University-affiliated primary care center	Urban cluster	3	10 320
Mississippi	Multiracial and ethnic practice	Urban cluster	4	11444
Mid-Atlantic				
Maryland	Private solo family practice	Suburban	1	4 310
Virginia	Private family practice	Urban cluster	5	12 601
Midwest				
Iowa	Multiracial and ethnic family medicine residency	Urban	22	11 313
West				
Colorado	Private solo family practice	Urban cluster	1	2 169

Abbreviation: FQHC, Federally Qualified Health Center.

<sup>a</sup>Suburban/urban/urban cluster classifications per the Federal Register (March 27, 2012), Vol 77:No 59.

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**TABLE 2**

## Sociodemographic Characteristics of Patient Participants

Characteristic	n (%)
Marital status	
Single never married	12 (19)
Married living as married	36 (57)
Divorced or separated	9 (14)
Widowed	6 (10)
Education	
8 y	2 (03)
Some high school	10 (16)
High school graduate/GED	15 (24)
Some college	18 (29)
College graduate or beyond	17 (28)
Income	
<\$20 000	22 (38)
\$20 001–\$35 000	12 (21)
\$35 001–\$50 000	8 (14)
\$50 001–\$75 000	8 (14)
>\$75 000	8 (13)
Employment	
Not employed	15 (25)
Full-time employed	27 (45)
Part-time employed	11 (18)
Retired	7 (12)
Mean age (SD)	
51.5 (10.64)	

Abbreviations: GED, General Education Development; SD, standard deviation.

**TABLE 3****Barriers and Facilitators to Implementing Weight Management Recommendations**

	<b>Barriers</b>	<b>Facilitators</b>
Providers/practices	Financial barriers for intensive program delivery  Lack of insurance except Medicare Patient attrition from weight loss programs Lack of systematic approach within practice Low expectations/frustration re: lack of weight loss, sustained weight loss and patient motivation Lack of language interpreter services Focus on chronic illnesses more immediate	Structured weight loss programs: Meal replacements, supplements  Counseling: meal planning/physical activity Educational materials Staff to provide education Wellness-oriented practice
Patients	Mobility issues—physical and transportation Lack of venues for physical activity Depression and other chronic illness Lack of clarity on how to make changes Lack of family support re: dietary advice Stress related to lack of time and finances Lack of coaching, motivational and constructive support  Cultural and self-identity as obese Lack of relationship with providers or role models	Using mobile fitness trackers Programs (ie, Weight Watchers) Attend classes, group sessions Exercise buddies Local programs and support Specific follow-up by providers Culturally specific dietary advice—what to eat, how to prepare meals Respectful interactions

**TABLE 4****What Patients Need/Want Versus What Providers/Practices Offer**

<b>What Patients Need/Want as Support</b>	<b>What Some Providers/Practices Offer</b>
Structured programs	Hospital resources (RDs, weight loss programs) Insurance payer and school programs
Specific advice from their provider (diet, exercise, herbal, or natural supplements)	Health educator with allocated space Counselors Educational programming Educational and dietetic handouts
Follow through Text messages/motivational messages, phone calls Follow up at each visit, hold accountable	Follow up through phone calls Focus on patient accountability
Review weight and performance	Attempt to discuss weight management at every visit
Provider concern for patient One-on-one conversation Accountability of provider to patient	Providers focused on wellness and weight loss
Cultural adaptation to dietary and lifestyle changes in their new communities needed by Hispanic immigrants	Community resources in Spanish/home visits Interpreters at clinic

Abbreviation: RD, registered dietician.