Insights from the POWER Practice-Based Weight Loss Trial: A Focus Group Study on the PCP's Role in Weight Management

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BACKGROUND: Despite U.S. Preventive Services Task Force recommendations, few primary care providers (PCPs) counsel obese patients about weight loss. The POWER practice-based weight loss trial used health coaches to provide weight loss counseling, but PCPs referred their patients and reviewed their patients' progress reports. This trial provided a unique opportunity to understand PCPs' actual and desired roles in a multi-component weight loss intervention.

OBJECTIVE: 1) To explore the PCP role, inclusive of and beyond the trial's intended role, in a practice-based weight loss trial; and 2) to elicit recommendations by PCPs for wider dissemination of the successful multi-component program.

DESIGN: Qualitative focus group study of PCPs with ≥ 4 patients enrolled in trial.

PARTICIPANTS: Twenty-six out of 30 PCPs from six community practices participated between June and August 2010.

MAIN MEASURES: We used a semi-structured moderator guide. Focus groups were audio-recorded and transcribed verbatim. Two investigators independently coded transcripts for thematic content, identified meaningful segments within the responses and assigned codes using an editing style analysis. Atlas.ti software was used for organization/analysis.

MAIN RESULTS: We identified five major themes related to the PCP's role in patients' weight management: (1) refer patients into program, provide endorsement; (2) provide accountability for patients; (3) "cheerlead" for patients during visits; (4) have limited role in weight management; and (5) maintain the long-term trusting relationship through the ups and downs. PCPs provided several recommendations for wider dissemination of the program into primary care practices, highlighting the need for specific feedback from coaches as well as efficient, integrated processes.

CONCLUSIONS: Weight loss programs have the potential to partner with PCPs to build upon the patient–provider relationship to improve patient accountability and sustain behavior change. However, rather than directing the weight loss, PCPs preferred a peripheral role by utilizing health coaches.

KEY WORDS: qualitative research; obesity; primary care provider.
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INTRODUCTION

Primary care providers (PCPs) and practices have an important but under-utilized role for providing weight management services for obese patients.[1–3] In 2012, the U.S. Preventive Services Task Force (USPSTF) updated and confirmed its 2003 recommendations for clinicians "to screen for obesity and offer or refer patients with a body mass index (BMI) of 30 kg/m^2 to intensive, multi-component behavioral interventions (Grade B)."[4,5] However, providers report multiple barriers to providing weight counseling themselves, including inadequate training in weight management and lack of time during primary care visits.[6–9] Further, studies have shown that, in practice, about one-third of obese adults are given an obesity diagnosis, less than half are advised to lose weight and approximately one-fifth receive counseling for weight reduction.[10,11] Taken together, these studies suggest that national recommendations for obesity treatment in primary care settings are not uniformly being translated into practice.

Understanding how to expand and improve upon the role of PCPs in weight management is especially timely. In November 2011, The Centers for Medicare and Medicaid Services (CMS) released a decision memo to cover obesity management in primary care settings by PCPs, but not ancillary staff members.[12] Although several major efficacy trials have demonstrated the benefit of behavioral weight loss programs,[13,14] the majority have been implemented outside of primary care settings.[15] The Practice-based Opportunities for Weight Reduction (POWER) Trial at

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Hopkins[16] was one of three independent but coordinated National Institutes of Health (NIH)-funded trials to assess behavioral interventions for weight loss in primary care settings, and it was subsequently found to be effective.[17]

The design of the Hopkins POWER trial provided an explicit but minimal role for PCPs, who advertised and recommended the study to obese patients in their practices and reviewed patients' progress reports during routine visits.[17] In this multi-component intervention, heath coaches, not PCPs, delivered the weight loss counseling intervention, enabling a great deal of variation in the PCPs' involvement, beyond the trial's intended role. Our primary objective was to use end of study focus groups with PCPs to explore their roles in weight management, inclusive of and beyond the role intended by the trial's design. We also sought to elicit their recommendations for wider dissemination of the program and its integration into primary care practice. The overarching purpose of the focus groups was not to compare the PCPs' actual participation with the trial's intended PCP role. Rather, we sought to understand PCPs' perspectives about their role in the intervention and in their patients' weight loss, thereby providing insights to inform best practices in developing practice-based weight management programs.

METHODS

The Institutional Review Board of The Johns Hopkins University School of Medicine approved this study. All PCPs who participated in a focus group provided informed consent.

Overview of the Hopkins POWER Trial

Details of the study design and main results of the trial have been published previously.[16,17] Briefly, Hopkins POWER was a three-arm randomized controlled trial to determine the effectiveness of two behavioral weight loss interventions over 24 months in obese primary care patients with at least one cardiovascular risk factor. The trial included 415 participants, with a mean age of 54.0; 63.6 % were women and 41 % were black.[16] Patients in both intervention groups had weight-loss health coaches who provided education and positive reinforcement, emphasizing self-monitoring of weight, reduction of calorie intake, and increased exercise. The "Remote" arm received coaching over the phone without any in-person coach contacts and the "In person" arm offered face-to-face group and individual sessions, as well as telephone contact with the coaches. Participants in both intervention arms had access to the same online educational modules, self-monitoring tools and received both automated and individualized e-mails. Participants in the control arm met with a weight loss health coach at the time of randomization and, if desired, after the final data collection visit. They also received brochures along with a list of recommended weight loss websites.

PCP Participation in the Hopkins POWER Trial

In this trial, PCPs had an explicit role: they screened for, publicized, and recommended the study to eligible patients, reviewed weight progress reports during routine patient encounters, used the report to motivate and support their patients, and re-engaged them in the program if not fully participating. Six community based practices (four with academic affiliations) partnered with Hopkins investigators in the trial. The practices' office medical directors provided early input to broadly define the responsibilities of the participating PCPs and their practices, and met monthly during the study period. Over the 24-month trial, PCPs received two brief informational meetings about the trial, as part of usually scheduled practice meetings. PCPs initially received information about their expected roles and then had updates about the trial's progress. Specifically, PCPs were asked to screen for eligible patients (obese and with a cardiovascular risk factor), refer them to the trial, and for patients in the intervention arms, to review weight progress reports sent via facsimile to the practice prior to the patient's routinely scheduled visits. These reports contained a graph showing the patient's self-reported weights, generic guidance for the PCP on how to counsel the patient to encourage progress and stay in touch with the program, and a comment box for the PCP to communicate with the health coach (Appendix A is available online). Finally, if a patient was not actively participating in the assigned intervention, the health coaches sent letters on behalf of the PCP to encourage involvement. Study participants (control and intervention arms) did not have additional visits with their PCPs beyond their regular care needs, and on average patients saw their PCPs two to three times over 24 months.

Focus Groups and PCP Participants

We conducted five end-of-study focus groups with PCPs who had patients enrolled in the trial to assess their roles in the trial, inclusive of and beyond the intended role. We also elicited their recommendations for wider integration of the program into primary care settings. From the six participating community practices in the metropolitan Baltimore area, 46 PCPs had enrolled patients in the trial. We invited the 30 PCPs with four or more enrolled patients to participate in a focus group. We held five focus groups in June-August 2010, which was close to the end of the 24-month trial. Focus groups were held at four (out of six) of the participating practices, with attendees from that practice location or one nearby. Each focus group included between three and eight participants and lasted approximately 60 min. One of the study investigators (WLB), who is a PCP but was not part of the study team, moderated all focus groups, using a semi-structured moderator guide. The guide included open-ended questions about PCPs' perceptions

about the POWER intervention and their patients' successes and failures with the trial. The moderator used reflective probes to encourage participants to clarify or expand on their statements. She also asked them to brainstorm whether it would be possible to integrate a similar program into their practices outside of a study setting, and what would make it possible to disseminate the program to other practices throughout the country. We pilot tested the moderator guide among three practice medical directors and modified it accordingly. At the focus group, each PCP received a list of their patients in the trial and their weight change to date. PCPs also completed a questionnaire at the time of the focus group to obtain demographic information.

Data Analysis

Focus groups were audiotaped and transcribed verbatim. To develop the initial codes and coding template, two investigators (WLB and KAG) independently read the transcript from the first completed focus group. We identified meaningful segments within the responses and assigned codes using an editing style analysis.[18] Discrepancies in coding were negotiated with a third person arbiter (JMC). WLB and KAG independently read and coded the remaining focus four group transcripts, applying the coding template, which was iteratively modified as the analysis proceeded. We grouped codes into general themes about PCPs' roles, and discussed the themes among the entire team of investigators. The team collectively selected the themes and representative quotes we presented in this paper. Following accepted qualitative research methodology, we determined that by the end of the fourth focus group we had reached "thematic saturation", defined as when the themes are confirming information from prior groups rather than yielding novel themes.[18]

Atlas.ti 5.2 software (Atlas.ti GmbH, Berlin, Germany) was used to facilitate qualitative data management and analysis. All transcripts were uploaded into the software to enable investigators to do coding, build the codebook, and group the codes into themes.

PCPs' characteristics from the self-administered survey were analyzed using Stata Version 9.2 (Stata Corporation, College Station, TX, USA).

Each PCP who attended a focus group received $50 as compensation. In addition, PCPs received per participant incentives, which either went to the practice or themselves.

RESULTS

Twenty-six out of 30 invited PCPs from six community-based primary care practices participated in one of five focus groups. The 26 participating PCPs were the provider of record for 72 % of trial participants. Four other eligible PCPs did not participate due to last minute scheduling conflicts. Table 1 shows the characteristics of the 26 providers. The majority was female (58 %), physicians (92 %) with two nurse practitioners, and had internal medicine training (77 %). The mean time in practice was 16 years (SD 11.7), and mean number of patients in the trial was 11.1 (SD 6.8).

Five Themes Addressing the PCP's Role in the Weight Management Program

To address the first study objective, we identified five themes describing the PCPs' perceptions of their roles in the weight management intervention. We present each of these themes along with an illustrative quotation in Table 2 and describe them in more detail below.

Refer Patients Into and Provide Endorsement of the Program. PCPs in all focus groups highlighted the importance of their referrals and endorsement of the study for their patients. They described their patients' perception that if the PCP referred them into the program, the PCP could then be aware of the weight management plan, particularly in the practices affiliated with the research institution.

> "I think for me what was different about the trial was that there was a…sense of coherence between [us]—it's the same institution. We recruited the patients, identified the patients, so…their joining became a larger part of their overall treatment plan. When I've had patients go into research trials before, it's been sort of like a black box, so you may get reports back, but you really have a fuzzy sense of what happens and what their commitment is in that trial, and that wasn't the case. It was more like a glass box in the sense that there was a back-and-forth communication and people actively talked about their progress in a

Table 1. Characteristics of 26 PCPs From Six Community-Based Practices that Participated in Five Focus Groups

	N (%)
Mean age, years (SD)	46.4 (10.7)
Female	15 (58 %)
Race	
White	15 (58 %)
Asian/Pacific Islander	6 (23 %)
Black	3 (12 %)
Other	2 (8 %)
Provider type	
Physician	24 (92 %)
Nurse practitioner	2 (8 %)
Mean years in practice (SD)	16.4 (11.7)
Specialty	
Internal medicine	20 (77 %)
Family practice	6 (23 %)
Mean # of patients in trial (SD)	11.1 (6.8)

Table 2. Five Major Themes on PCPs' Role in Weight Loss Interventions With Representative Quotes

Theme	Representative quotations
Refer patients into the program, provide endorsement	I really pushed the patients that I had…'cause I felt like it was something that I could do for them, whereas, normally, I don't have a lot because…nutrition's not covered…So this was something free and easy that I could encourage them to get involved in.
Provide accountability for patients	You can drop out of Weight Watchers and nobody will know or…care… but he's going back to his primary care physician. [Y]ou are adding a layer of accountability with the patient, which I think could potentially be important.
"Cheerlead" and manage medications during interval visits	And just trying to encourage them, to say, 'If you're heading in the right direction, that's better than going backwards'.
Have limited role in weight management	She did great. And she did it with the help of the coach, and not from any input from me.
Maintain trust and support through long-term relationships with patients despite ups and downs	We built up trust, and …have a good relationship, and she was looking for a non-pharmacologic way to lose weight… that really helped her.

way that I could understand it, so I thought it was different than the typical referral of a patient to a blinded trial."

Another PCP agreed about the benefit of their affiliation with the research institution: "I think that [our affiliation] helped make it into a legitimate type of program that [our patients] would have confidence in, not just one of these wild watermelon diets or things like that, so I think once they got started and got into it, then they would sort of continue it on their own."

Regardless of the practice's affiliation with the research institution, PCPs agreed that their referrals into the program were highly influential for patients: "I think the referral was powerful," and "I think it was nice for patients to be able to say this one is recommended by my doc, so there's got to be some validity to this."

Several PCPs remarked about their unusual success at enrolling male patients into the study, which they attributed to the PCPs' endorsement as labeling it a 'medical' program. One PCP observed, "[Men] feel okay and [that they are] not just in a typical weight loss program. [When] all female, they don't feel comfortable, but this one sounded like a more medical setting and he felt that he wasn't just being trapped as the only male in the group." Others agreed, "[It's] not something that their wives would be doing, or dragging them to do" and "Right, [w]hich is what Weight Watchers and Jenny Craig [are]… focused on women."

Provide Accountability for Patients. PCPs perceived that patients were successful with weight loss, in part because they felt dually accountable to their health coaches as well as to their PCPs.

"…[It helps] to be in a structured program where you're not only getting education, but you're also being watched, you're being observed. And of course having the primary care doctor there too adds to the level of accountability of the patient. [Y]ou can drop out of Weight Watchers and nobody will know or nobody will care…but he's going to be going back to his primary care physician. So in a sense you are adding a layer of accountability with the patient which I think could potentially be important."

However, PCPs acknowledged that they provided accountability to their patients from a distance, with only periodic visits and updates, since they could not offer the same intensity of services provided by the health coaches. One PCP summarized the accountability that enabled his patient to be successful with the program: "For [my patient] it was the intensity and the frequency of the feedback…[W]e'll see people every 3 to 6 months [in clinic], and there's just too much of a lag time in between when you're giving advice and getting feedback…[W]e can't see people every month."

Finally, PCPs reflected on their own participation in the study as enhancing their sense of accountability towards patients who were study participants, increasing their responsiveness and sensitivity to their patients' weight management needs and plan.

"Whenever anyone came back…I asked them which arm of the trial they were in, how they were doing. I find that with [all] patients who are trying to lose weight, you've gotta recognize that they've lost weight. So you need to be the one says to them, 'Gee,' as you're looking at their vital signs, 'Oh!' You know, I look back. 'Oh, you've lost six pounds since you were here last or so.' And they really need that positive feedback that we're paying attention to what they're doing."

As a result of the study, one PCP reported becoming more sensitive to patients' barriers to lifestyle changes, such as exercise: "[O]n the weight progress reports it would say, 'Was there a reason why they couldn't exercise?'…Usually, I would ask that anyway, but I think it just made me be more sensitive, 'cause sometimes I'm kinda tough on the patients, and I've been kinda tryin' to dial it down a little bit."

"Cheerlead" and Manage Medications During Interval Visits. When patients returned for routine interval visits, many described their role as a cheerleader, acknowledging the patients' successes and supporting their efforts. One PCP described a visit with a patient and said, "I think my patient liked when I showed [him] the progress, the charts. [T]hey look

at me as I'm their cheerleader." Another PCP stated, "[During visits] we recognized what they were doing, encouraged them to stick with it, and a number of them did well."

For many, the PCPs' involvement went beyond support and cheerleading, especially for those who needed periodic medication adjustments after weight loss.

> "One of my patients lost a lot of weight, and he's actually off all of his diabetes and blood pressure medicines now because of it. So my role: there was not only cheerleading, but also saying, look, we've got to stop some of these medicines. You're going too low sometimes. He was thankful."

Have a Limited Role in Weight Management. Overwhelmingly, PCPs described their role in the Hopkins POWER weight loss intervention as being very limited and peripheral to the main program, which was centered on one-on-one health coaching. Although they referred patients into the program and adjusted medications during follow-up visits, many PCPs described limited specific knowledge of the lifestyle changes their patients made and the content of the health coaching. One PCP described the experience as:

> "A couple of [my patients] wanted to talk about it a lot, so to them, I guess, it was important that I knew all the details. But, since there wasn't any direct contact between us and program [staff], like no emails, no — when we send someone out for a consult we get a letter back, so I feel like a little more continuity—I didn't have that. So it felt like, put them out into the study and now they're your baby. So yeah, [I was] not so involved."

A downstream effect of the PCP's limited role was patients' perception that the PCPs had a low level of involvement with the study. One PCP stated, "I got the sense that [my patients] did not think I was really part of the program. They felt the need to report back to me about what was happening, and obviously I asked them about it at every visit. But I never got the sense that they thought that I was taking an active role in the program itself."

While PCPs described both positive and negative reactions to their limited management role, the majority seemed pleased with this approach, as exemplified by one PCP:

> "[T]hough I felt…fairly remote from the system [of the program], except that I had a sense of relief that these patients were engaging in a process that I thought might potentially be useful. So it made me feel good to know that they were doing something about it—in each of these cases, there were some really significant comorbidities that they were doing something about it which they weren't otherwise doing. But what sort of positive role I had for them, I don't really know."

However, several PCPs expressed frustration that they did not always receive the weight progress report in a timely manner, and would have desired more individualized content about their patients included in the updates.

Maintain Trust and Support Through the Long-Term Continuity Relationship. PCPs reflected on their long-term primary care continuity relationships with their patients as providing a backbone to the success of the weight loss intervention. They described their longstanding relationships with patients, building trust over time, and the importance of a continuous conversation that occurs in a primary care setting to assist with identifying the optimal timing for behavior change.

> "But I try to ask—because it's often a continuous conversation over many years is to try to understand where they are right now: 'How are your weight issues going? How are you doing with your eating?' Something that's kind of non-judgmental and allows them to let me know what their current issues are and what their goals are."

Another PCP described her long-standing relationship with her patients and that she cared for multiple generations in the family, which enabled her to have insight into the patient's home life: "Most of my [patients in the trial] I've known for quite a long time, and take care of not only them, but other family members. So you pretty much have an intimate idea of what's going on."

Themes Addressing Practical Considerations for Wider Dissemination of Multi-Component Weight Management Programs and Integration Into Primary Care Practice

To address the second study objective, we asked PCPs to reflect on the practical considerations and key intervention components to successfully integrate the Hopkins POWER intervention more widely into primary care practices. Table 3 highlights the five most common recommendations that could inform program dissemination, with representative quotations.

The majority of PCPs desired to maintain a peripheral management role in a larger scale of a program, similar to their stated experience with the study as described above. Their rationale was that the coaches were perceived as providing highly effective weight counseling and management, and the PCP had neither the time nor specific skill

Table 3. PCPs' Recommendations for Wider Dissemination of the Weight Management Program and Integration Into Primary Care Practice

Recommendation	Representative quotations
Coaches provide accessible, efficient, actionable & specific feedback to PCPs	If [the weight progress report] came [into the health record] like the labs came…I could easily look at that… I need bullets: boom, boom, boom…. The time pressure is immense and anything to do in a shorter time, the better. Would be better if [I] could log in to [myself] to get the result, to go to a website and say, 'All right, I'm going to download your results,' rather than having to wait for it to be sent to us…
Weight program integrates into primary care practice's systems	[A] standardized group of questions, when the patient came to me [so] I wouldn't have to take 20 min of a 15-min visit…I would say… 'You've lost weight,' or, 'I see you're still with the program', 'Do you have a goal?' …and then we could easily put it in the system… [I[t reinforces the fact that we're working together for you to lose this [weight]. [Patients] identify this place as "their home," so whatever we build in, we'd have to do it through here to …have a better success rate.
Coach, not PCP, delivers weight counseling because was effective and PCP does not have time or specific skill set	[F]or those of us …seeing 25 patients a day, it's prohibitive for me to have another something that I have to clock into to pull up information to check into… so I wouldn't want another thing to do for patients to come in, going into another system, pulling up something out of a—but it would be good…if I had time set aside for this. I think that coach was vital.
Counseling by phone for patient convenience and clinic space constraints	[P]eople don't have a whole lot of time, so the call-in feature or doing things after hours, off hours was a benefit…Not having to be someplace helped them. Space is at a premium a lot of the time here.
Identify sustainable payment models for program	To make this happen one of the insurers [would need to say], 'Look, this is a great idea'… [then], pay for it and we'd get money. [Our patients] pay for Jenny Craig… it's a question of compet[ing] in the marketplace cost-wise. I think it's such a big satisfier for patients to get their care through our office… If [we charged a fee], I think maybe [our patients] would go for it. A medical home [model]…I'm thinking of your patient who dropped four meds. That's a savings to the health care system, 'cause health care system needs more programs like this to save the system. [T[his type of stuff wouldn't make you money like within the next year, but certainly down [the road].

set. One PCP stated his concern about time constraints if POWER was expanded:

> Well, for those of us who work full schedules, and let's say we're seeing 25 patients a day. It's prohibitive for me to have another something that I have to clock into to pull up information to check into… My practice module hardly permits me enough time to eat and sleep, so I wouldn't want another thing to do for patients to come in, going into another system, pulling up something out of a—but it would be good to know this [information about my patients' weight management] *if* I had time set aside for this.

They also believed the telephone-delivered weight counseling by coaches was most convenient for patients and practices with limited space.

Although PCPs concurred about being too busy to take on a larger role in weight management, they recommended improving the content and delivery of the communication with the coaches if the program was scaled up. They suggested more accessible (e.g. available online), actionable and individualized feedback from the coaches that they could quickly obtain at the time of visits. One PCP stated, "We [need] some sort of feedback [from the coach to] the PCP as to, 'We are learning that the following is a problem', so that the physician can act in a positive way to give [the coaches] more feedback in terms of what the obstacles are [for the patient]." Another PCP stated that he could be more effective if he knew whether his patients were logging into the study's self-management website, "because I could nag them a little bit…it doesn't take too long to say something to them about it." PCPs also suggested improved integration of the coaches' assessments and feedback into existing systems of care, such as the electronic medical record. Finally, PCPs acknowledged that a major barrier to complete integration of a weight management program into primary care practice was the current payment model, which would necessitate either insurance coverage or self-pay by the patients.

DISCUSSION

In the setting of a primary care practice-based weight loss randomized controlled trial, we conducted end of study focus groups with PCPs: 1) to understand their role in the weight loss intervention and 2) to identify their recommendations for broader integration into primary care practice. Regarding the first objective, PCPs described five major roles: Endorsing and referring patients into the program, providing accountability to patients through routine monitoring and follow-up visits, "cheerleading" for patients, being peripheral to the program with the weight management primarily led by the health coaches, and maintaining trust and a longer-term

relationship. Regarding the second objective to identify recommendations for wider integration of the program into primary care settings, PCPs suggested improving the quality, content and access to the feedback they received from health coaches to make it more specific, actionable and web-based. They also suggested greater integration of the program into their electronic medical record systems and highlighted the need to identify financially sustainable reimbursement models for weight management.

Our findings identifying PCPs' roles in this multi-component weight loss trial resonate with prior practice-based weight loss studies. Few trials have specifically trained PCPs to deliver lifestyle counseling.[15,19–22] In fact, similar to the Hopkins POWER study, trials that have involved PCPs within a multi-component intervention involving several team members have the strongest evidence for effectiveness.[15] In a systematic review of primary-care based weight loss studies, Tsai and colleagues found that studies with collaborative care models, similar to the three POWER studies, in which registered dieticians or nurses delivered weight loss counseling, were more effective than PCP-delivered counseling interventions.[15] Not only was the Hopkins POWER model effective,[16] but PCPs preferred their roles as predominantly supportive of patients' behavior changes. In Hopkins POWER, the health coaches lead the weight management, including monitoring and making recommendations.

There are notable strengths in this focus group study that enhance our findings. Because we conducted the focus groups with PCPs at the end of the Hopkins POWER trial, we had a unique window into PCPs' roles in an effective multi-component weight loss trial.[16] Multi-component programs have demonstrated the most success, and in fact, are recommended by the USPSTF.[5] Therefore, it is critical to understand what the physician role in these programs should be. Prior studies using physician focus groups have explored physician beliefs about and barriers to performing weight loss counseling,[6,8,23] but were not conducted within an existing weight loss program or study. Embedding our study within a successful trial has enabled us to now directly inform the design of a larger scale practice-based multidisciplinary weight loss program. An additional strength was that the Hopkins POWER study was one of three independent but coordinated practice-based weight loss trials roles.[16,17,24,25] In designing each of these trials, the investigators recognized that PCPs have significant time burdens and limited successes in prior trials where the PCPs had the primary counseling role.[7,15,26] Each of the trials specified different roles for the PCPs and other providers. In the POWER-UP trial, Wadden and colleagues trained medical assistants to provide brief lifestyle counseling to participants, in addition to scheduled PCP visits.[25] In the "Be Fit, Be Well" trial, Bennett and colleagues trained community health educators to deliver the intervention and PCPs also encouraged participation in the program.[24] The Hopkins POWER[16] and the POWER-UP[25] trials required the largest PCP involvement and also resulted in the most weight loss. In fact, the differential effectiveness of these interventions may have been in part influenced by the extent of PCPs' engagement.

Interestingly, CMS' new coverage policy excludes weight management by non-PCP providers, such as behavioral health providers or health coaches.[12] This new benefits coverage stipulates that weight loss counseling be provided in the primary care setting by a physician or nurse practitioner.[12] Prior studies have demonstrated that many PCPs perceive a lack of weight counseling skills and training about weight management.[6,9] Our results suggest that PCPs may not be interested in taking on this role, and prefer that the health coach take the lead with weight counseling responsibilities. In addition, strong evidence supports a collaborative, multi-component, practice-based weight management program.[15] Taken together, this evidence raises the question of whether the new CMS benefit will be effective for weight loss among beneficiaries. However, the current CMS benefit is a good first step towards insurance coverage of weight counseling and partnering with PCPs. In subsequent iterations of the benefit, policymakers may need to expand its scope to include beneficiary participation in an evidence-based multi-component program that is scaled up to meet population-level needs. In fact, capitalizing on several of the key conclusions from our focus groups and the review by Tsai and colleagues[15] could identify the best models to rapidly take to scale. For example, PCPs' requested further integration of the coaching model into their practices, with enhanced communication with coaches. Prior studies[27] have also highlighted the need for support systems within practices that enable PCPs to provide time-efficient actionable counseling for patients,[28] especially integrated into electronic medical records. Based upon on our results, we can envision a wider dissemination of this telephone coach-delivered weight loss counseling model in which PCPs could receive and review progress reports in the EMR, with patient-specific actionable items they could use to improve counseling in patient visits. Insurance coverage of such a program from payers like CMS would be an important next step in scaling up the multi-component, practice-based model to address obesity on a population level.

Several limitations of this qualitative study should be considered. First, the 26 PCPs who participated in the focus groups had to have four or more patients enrolled in the trial, and were part of practices where the medical directors and staff had dedicated time towards planning and implementing a successful trial. These PCPs may have been more motivated and interested in weight management with views that may represent the best-case scenario. Second, the trial included six community practices in one geographic area. The themes about PCPs' role in weight management in this qualitative study may not resonate with PCPs who did not have patients in the trial or be generalizable in other practice settings. Nonetheless, our results provide a starting point for consideration for other practices or researchers

interested in defining the PCP role in multi-component, primary care-based interventions. Because our study showed that PCPs did not want the role of performing behavioral weight loss counseling, future research is needed to understand in what situations PCPs could envision themselves with an expanded counseling and weight management role, which will be soon covered by Medicare. Third, we held the five focus groups in four of the six practice locations, with the majority of participants meeting with their practice colleagues. Although themes were generally consistent between the practices, these groupings may have increased the likelihood of having shared positive or negative experiences and could have limited the range of discussion topics. Fourth, PCPs' preferences may be linked to their exposure to the trial's procedures, for which the practice medical directors had provided input, and their existing model of health care delivery and reimbursement. If they were compensated for obesity care or had reduced panel sizes, they may be more interested in an expanded role. Fifth, we limited our focus group attendees to PCPs, thereby omitting key perspectives about the important roles of office managers, nurses and medical assistants, which could be a topic for future research.

In conclusion, our focus group study has important findings about the role of PCPs in the Hopkins POWER weight loss study with implications for expansion of the program more widely into primary care practices. Although, the multiple components of the intervention make it challenging to assess their individual effects, the focus group results highlight the benefits of PCP participation in the weight loss intervention. PCPs perceived having important roles in patients' successful weight management, including recruiting and staying engaged with patients, "cheerleading for them", providing accountability and medical management, and maintaining long-term patient–provider relationships through "ups and downs." In fact, if more widely available, the Hopkins POWER intervention or a similar program could enable PCPs to successfully comply with USPSTF recommendations.[5] Primary care practices could then use these practice-based multi-component models to offer obese patients an evidence-based behavioral intervention without draining resources and time away from PCPs, which may ultimately improve patients' weight loss outcomes.

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The original trial involved a collaboration with Healthways, Inc., a disease management company. Healthways provided coaching effort for the transtelephonic intervention and developed the website used in the intervention. Healthways provided some research funding to supplement NIH support. Under an institutional consulting agreement with Healthways, the Johns Hopkins University received fees for advisory services to Healthways during the POWER trial. Faculty members who participated in the consulting services received a portion of the University fees.

Conflict of Interest: *The authors declare that they do not have a conflict of interest.*

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