ORIGINAL RESEARCH

Rural Family Medicine Clinicians' Motivations to Participate in a Pragmatic Obesity Trial

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Purpose: **To understand the motivations of rural-practicing primary care clinicians who participate in an intensive multiyear pragmatic randomized behavioral obesity intervention trial, Rural Engagement in Primary Care for Optimizing Weight Reduction (RE-POWER).**

Methods: **Structured interviews were conducted with 21 family medicine clinicians who were study leads at participating rural practices. Themes emerged through an analysis of transcripts and interview notes by using the constant comparative method.**

Results: **The analysis revealed 3 main themes. First, primary care clinicians participated in RE-POWER because it provided a concrete plan to address their recurring clinical care need for effective obesity treatment and management. Second, participation offered help to frustrated physicians who felt a deep professional duty to care for all their patients' problems but were dissatisfied with current obesity management. Third, participation was also attractive to rural primary care clinicians because it provided a visible and sustainable way to demonstrate their commitment to improving the health of patients and the broader community.**

Conclusions: **Our findings show that clinicians are motivated to try solutions for a clinical problem—in this case obesity—when that clinical problem is also closely connected to a particularly frustrating area of clinical care that challenges their professional identity. Our data suggest that a motivation to close the gap between ideal and real practice can become such a high priority that clinicians are sometimes willing to try potential solutions, such as engagement in research, that they otherwise would not consider. (J Am Board Fam Med 2020;33:736–744.)**

Keywords: **Behavior Therapy, Family Physicians, Motivation, Obesity, Obesity Management, Practice-Based Research, Qualitative Research, Primary Health Care, Rural Health, Weight Loss**

Introduction

Rural residents comprise about 20% of the United States' population and are impacted disproportionately by obesity and obesity-related illnesses, including diabetes and heart disease.[1–4] They face a number of obstacles managing their weight, including inadequate availability of evidence-based commercial weight control programs and limited access to built environments conducive to physical activity.[5–7] Because many rural residents receive most of their health care from a primary care clinician, an opportunity exists to help these clinicians improve delivery of obesity treatment for this underserved population.[7,8]

Despite guidelines on screening and treatment,[9] most patients with obesity do not receive sufficient counseling to achieve weight loss.[10,11] Prior research shows a gap between physician and patient perspectives on weight loss counseling, perceived health impact of weight, motivation to lose weight, and perceived barriers to weight loss.[12–14] In addition, physicians can feel unenthusiastic about weight management for a variety of reasons, including lack of time to devote to counseling, lack of evidence-based treatment options,

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and a perception that it is not their responsibility as the physician.[15–17]

For primary care physicians that practice in rural areas, these frustrations may be particularly acute. A close overlap exists between professional and personal roles in rural communities because patients are neighbors and friends. These individuals are more likely to share a number of attributes with their patients, including a rural upbringing, resilience under adverse circumstances, and a strong sense of place.[18–20] Feelings of frustration or inadequacy about managing obesity may impact a physician as they interact with patients outside the clinic.

Because where someone lives impacts their risk for obesity, many rural settings offer residents only limited resources to maintain healthy lifestyles. These environments can be characterized by individual and family isolation, substantial travel distances to needed resources, and financial constraints.[21,22] The pattern of greater obesity associated with rurality is related to less availability of healthy food, limited public infrastructure open for physical activity (ie, school facilities), fewer safe streets and roads for walking or bicycling, and a lack of outdoor public recreation facilities in community planning.[23] Distance between Midwestern households is a by-product of farming practices and exacerbated by farm consolidation. However, rural residents often maintain social cohesion through food shared within and among families[24] and at events such as church gatherings that serve as crucial features of the social environment.[25,26]

From a clinical perspective, rural primary care practices have fewer referral resources to treat obese patients than their more urban counterparts (ie, registered dietitians, community exercise programs, and facilities), which contributes to limited treatment of obesity.[27] To improve these deficits, effective models responsive to rural social and environmental constraints are needed, and generating that evidence depends on the participation of rural primary care physicians.

Previous studies have identified numerous obstacles to participation in research for primary care providers, including a perceived lack of time, inadequate staff, and disrupted "flow."[28–30] Although previous work had demonstrated primary care's engagement in research,[31,32] only a few have focused on research engagement for rural physicians specifically.[33,34] Due to a lack of published studies, however, it is unclear how the perceived salience of the clinical topic may impact rural physicians' motivations to participate in research that involves adopting a new behavioral intervention for patients. A rural weight loss study in the Midwestern United States provided a venue to understand rural-practicing clinicians' key motivations to participate in an intensive pragmatic clinical trial.

Methods

Study Context

Rural Engagement in Primary Care for Optimizing Weight Reduction (RE-POWER) is a 5-year multisite cluster randomized pragmatic trial designed to test 3 modes of care delivery for obesity treatment in the rural primary care setting: individual face-to-face counseling (reimbursable under current Medicare guidelines), in-person group visits, and telephone-delivered group visits.[35] Intervention for each patient lasted 2 years, and frequency and duration of counseling were weekly to monthly over the course of the 2 years.

Clinicians and trained local practice staff among 36 practice sites helped refer patients for enrollment in the trial via provision of patient lists for mailings and in-office referrals. They performed all consenting and data collection activities (baseline and 6-, 18-, and 24-month visits). In 2 of the 3 arms, practice staff were responsible for providing the in-person counseling interventions. For the third arm, the study team staff at the Patient-Centered Outcomes Research Institute awardee institution performed the counseling via telephone. Onboarding of the practices included 1 to 2 site visits followed by a study training session conducted at the Patient-Centered Outcomes Research Institute awardee institution, which included continuing education on obesity treatment guidelines and training on study protocols. The family medicine clinician interviewees in this article had limited prior research experience, and most exposure was in the form of quality improvement projects. A median of 40 patients were enrolled at each site (range, 34 to 44). Practices were paid a monthly participation fee during their 3-year study participation period and were reimbursed for data collection visits and completed counseling visits.

Thirty-six rural primary care practices were randomized to 1 of the 3 study arms and 1,432 patients enrolled. Data collection occurred from February 2016 (first patient enrolled cohort 1) to December 2019 (final 24 month visit for cohort 3). Practices were recruited via referrals from research and primary care practice colleagues and from outreach at state-wide professional meetings. Practice

recruitment brochures, 1-page study summaries, and a link to the study website were distributed to interested parties identified through all avenues. The central study team followed up with interested practices by telephone and e-mail correspondence, providing more detailed information about the project and assessing continued interest. Subsequently, Site visits were made to each interested site to review study staffing, work and administrative requirements, payment structure, and timeline. Site agreements with each practice confirmed a commitment to participate in the study and preceded treatment arm randomization assignment by the study team before onboarding for the study. Thus, all sites agreed to randomization and were prepared to implement the intervention locally.

This article reports on interviews conducted with 21 family medicine clinicians who were lead study clinicians and primary decision-makers at the 21 practices recruited by the lead academic organization. This sampling strategy to interview a subset of 21/26 clinicians at the practices affiliated with our academic medical center leveraged the team's local connections and familiarity with sites from prior collaborations to increase the feasibility of a deeper, qualitative investigation. The authors varied in their roles in and level of association with the trial (principal investigator, coinvestigator, study coordinator, and qualitative analyst), which increased objectivity of analysis due to the multiplicity of perspectives. The entire study was approved by the Institutional Review Board at the University of Kansas Medical Center.

Data Collection and Analysis

Structured interviews were completed with lead clinicians via telephone by 1 coinvestigator (KK) trained in qualitative methods. Interviews were conducted early in the study, during the time of trainings and initiation of patient enrollment. Most (17/21) interviews were completed either before patient enrollment or within the first month of patient enrollment; 4 were completed later due to logistic and scheduling constraints. The interview guide focused on key constructs that are influential in the uptake and implementation of interventions, as described by the Consolidated Framework for Implementation Research.[36] For example, questions addressed perceptions of the intervention (design quality, evidence strength, and relative advantage compared with available alternatives) and aspects of the local climate as a key "inner setting" factor (tension for change, compatibility with overall approach to improving patient care, and relative priority compared with other changes) (see Appendix). Interviews lasted 30 to 60 minutes. Detailed notes were taken during the interview using a form with fields that corresponded to the questions in the interview guide as well a field to capture interviewer notes completed after the conclusion of the interview that might inform analysis. A subset of 7 interviews were audio-recorded and transcribed due to a delay in the setup of the project's secure recording software.

Three coders (SM-R with 2 research assistants) independently reviewed transcripts and interviewer notes to establish preliminary themes. Using grounded theory[37] and the constant comparative method,[38] themes emerged through multiple rounds of coding. After initial coding of a subset of the data, a codebook was collaboratively developed and then coders returned to the data to complete coding. The coding process consists of naming and categorizing data.[39,40] Coding is defined as the analytic process through which "data are fractured, conceptualized, and integrated to form theory."[41] Coding aims to recognize and relate various features of the qualitative data into related concepts that then can be linked across interviews to serve as building blocks of understanding and eventually theory. Through discussion, we moved from initial first-order codes to the second-order themes we present in this article. For example, initial codes from the data indicated long-term benefits that clinicians perceived REPOWER would have for their community and clinic (eg, helping improve the patient experience or build infrastructure to address obesity). These examples were discussed together and through analysis moved to thesecond-order theme of Sustainable Value for Communities that we report here.[42]

Questions and disagreements about coding were resolved through team discussion and with input from 2 additional coinvestigators (JVB and CB) who reviewed preliminary coding and illustrative quotes. These meetings served as a form of peer debriefing and as a way to address discrepancies from a team science perspective.[43,44] Meeting notes about analysis decisions provided an audit trail of the process.[45]

Results

Participating Clinic and Lead Clinician Characteristics

The 21 participating clinics were located across 18 rural counties in Kansas and 1 county in Iowa. The

Table 1. Characteristics of Participating Practices and Clinician Staffing Levels (n = 21)

Practice Characteristics	Values
RUCA code*, n (%)	
Isolated rural	11 (52.4)
Small rural	5 (23.8)
Large rural	5 (23.8)
Practice type, n (%)	
Rural health clinic	10 (47.6)
Federally qualified health center	2 (9.5)
Other (private/hospital owned)	9 (42.9)
Practice ownership, n (%)	
Hospital owned	11 (52.4)
Privately owned	8 (38.1)
Board owned	2 (9.5)
Number of staff, median (range)	
FTE MDs/DOs	4 (2–23)
FTE advanced practice providers	3 (0–6)

DO, doctor of osteopathic medicine; FTE, full-time equivalent; MD, doctor of medicine.
*RUCA code refers to rural-urban commuter area codes. Large rural core refers to areas in which primary flow is within an urban cluster of 10,000 to 49,999; small rural core refers to areas in which the primary flow is within an urban cluster of 2,500 to 9,999; isolated rural refers to areas in which the primary flow is to a tract outside any urban area or cluster.

smallest community represented had a population less than 1,000 and the largest approximately 50,000. Additional practice characteristics are described in Table 1. The lead study clinician was a MD or DO at 19 sites and a certified physician assistant at 2 sites; all were family medicine clinicians and actively engaged in patient care. Fifty-seven percent were female, and median years in practice was 15 (range, 1 to 43 years).

Qualitative analysis revealed 3 main themes that describe clinicians' motivations for participating in RE-POWER: (1) need for clinical support for patients with obesity, (2) alignment of professional identity and patient care, and (3) sustainable community value beyond the duration of the trial.

Need for Clinical Support for Obesity Management in an Environment with Limited Resources

Clinicians acknowledged the need for and challenge of obesity management. Most of the interviewees explained what a "huge" and "pervasive" problem obesity is for their rural patients:

> We have as much problem with the obesity epidemic as anywhere else in rural areas. I think there is limited access to good proven weight loss methods. [practice G]
>
> Our community had done a community needs assessment here back a couple of times, and of course, the number one issue in our community needs assessment is obesity, obesity treatment and we had not had in our mind a good plan on how to treat obesity that worked well. [practice U]

Some respondents referred to obesity as an "epidemic" and many explained that rural residents have minimal weight loss resources and encounter environmental obstacles to exercise. The very first gym had recently opened in 1 community, and in others the closest exercise facilities were 20 to 30 miles away. One clinician explained that the lack of affordable indoor facilities to exercise was especially problematic in the winter:

> Probably like most places who are in the study in rural America we don't have a lot of great resources in our community. And the limited resources that we do have, how do I put this- cost people money and people aren't willing to spend a lot of money for their obesity unless they're really motivated. [practice N]

Given the well-understood problem of obesity coupled with the limited resources for patients, clinicians across practices explained that RE-POWER came at a time when they were already actively looking for a solution.

> I'm always looking for ways to help obese patients lose weight; there's not very much out there that helps. [practice I]
>
> I think all of us are looking for something that works. [practice G]

RE-POWER's perceived clinical relevance to a significant need in their practices was a common motivator for participation.

Alignment of Professional Identity and Patient Care

Clinicians discussed how participating in RE-POWER helped them improve alignment between their professional sense of responsibility and their actual practice. As family medicine clinicians, they were frustrated with their inability to effectively manage obesity, citing a number of known barriers, like lack of time:

> There are a lot of patients that of course come in…frustrated with weight loss…so much to cover in a 15-30 minute visit. We enjoy doing that counseling, but hate doing that counseling because we feel like 1)we are ill-equipped, or 2) we just don't have the time necessary really, to dive into it. [practice F]

It's very difficult [. . .] in a ten-minute office visit to really get an effective treatment for it so I was interested in other ways to do it effectively. [practice U]

One lead clinician had the needed knowledge but not enough time or energy to consistently use her skills in practice (practice H). Other clinicians talked specifically about how competing priorities for their time kept them from effectively managing obesity:

I think if we had opportunity and time it would be nice to do that here but we just can't seem to make time for taking care of something that's not going to kill them right now. [practice G]

Struggling to find time to address obesity also proved to be challenging to clinicians' professional identities, which were rooted in family medicine's core values of providing holistic, contextualized, and continuous care.[46–49]

I think as providers even though we are Family Medicine and we try to be all things to all people, we understand that we can't do everything, especially in the changing health care environment. Learning what we can and can't do well is important. [. . .] it's very complex and it's not a one size fits all approach. So, it's more just an appreciation, an understanding that we can't do this on our own. . . [practice F]

For these clinicians, this gap between patient need and what they could offer was difficult. Two clinicians embraced RE-POWER as an opportunity to "help my patients and learn how this is done in a better way" and to "gain more tools to help people as we conquer this every day" (practice B, practice T). Given the level of frustration around obesity management, clinicians saw RE-POWER as having the potential to provide improved alignment with their professional identity in family medicine by helping them bridge the divide between patient need and their care.

In fact, RE-POWER's appeal as an approach to close the gap between ideal and real practice was strong enough to change physician's stance about research participation:

The interesting thing is I get some online surveys and it was less than a week prior to getting the request, I got an online surveying about participating in research trials and I'm not much of a research type person and I answered that whole survey about no I don't want to do this, no I really don't care to. And then I got the RE-POWER study and I thought man, I have to go back on everything I said in that survey. [practice N]

For this physician, the desire for improved alignment between his professional responsibility to his patients and the care he could provide for patients with obesity motivated participation in RE-POWER, even despite his strong reservations about research participation.

Sustainable Value for Communities

Clinicians described participation in RE-POWER as a means to benefit their local rural community. For some, this broader benefit stemmed from obesity's connection to other health problems. One respondent shared that obesity was "at the root of a lot of problems" and believed that improving obesity care could have "ripple effects" for overall health (practice D). Another said she believed participation in the study was important because it was a way to build infrastructure to address obesity in her community (practice H). Another clinician explained that participating in RE-POWER contributed to a fundamental shift in how his practice viewed patient care:

moving from. . .patient encountered approach to care to population health care. . . forcing us to get out of that one patient, one encounter, one charge, one service to [seeing] the patient encounter, the face to face visit, [a]s just one small portion of the total patient care experience. [practice F]

For this practice, RE-POWER encouraged movement away from fee-for-service paradigm to a more holistic population health management orientation, a shift that would benefit patients and communities beyond the duration of the trial.

Finally, clinicians explained how deciding to participate in RE-POWER conveyed a broader commitment to health and community engagement:

It has been great for our patients. Between the newspaper article and our Facebook shout out, we have been amazed at people within our practice, people within our community that have come in and connected and touched our practice in some way. Through the study we have learned both from a marketing standpoint and from a community engagement standpoint, studies are great ways—studies like this that are relevant—are great ways to connect and keep people engaged in what we are doing here. So, it has since raised our interest in potential for doing future studies. But initially, that wasn't a huge desire of our practice. [practice F]

For this practice, the relevance of obesity was key for their participation yielding a positive impact on and response from their community.

Discussion

Interviews with lead family medicine clinicians at 21 rural practices revealed 3 main motivations for participation in the RE-POWER clinical trial. First, clinicians identified obesity as a persistent problem for their patients and viewed participation in the pragmatic trial as a concrete solution that would fill a gap in care. In this way, the clinical relevance for their practices of a trial on obesity management motivated participation. Second, clinicians also conveyed a sense of inadequacy about this topic, which emerged in the second motivation related to professional identity. Finally, some clinicians were motivated to participate as a way to signal that their clinic had a commitment to improving the overall health of the community.

Overall, clinician participation in this trial offered both instrumental and symbolic value to participants. In addition to receiving tools and support to specifically address a challenging clinical problem, clinicians saw the study as a pathway to reduce professional frustration—helping them embody the philosophy of family medicine to provide patient-centered, continuous, and holistic care that seeks to help patients live well.[46,47,49–52] Finally, participation provided, for some, a means of solidifying their commitment to their entire community.

Previous research has identified many barriers to optimal obesity management in rural settings, including higher rates of obesity in rural populations, fewer referral resources for treatment, and inadequate time and training.[15–17] Our findings suggest that an additional complicating factor may be the way obesity provides a challenge to family medicine identity, as clinicians earnestly want to help all their patients with each of their concerns, but they face fundamental challenges to do so effectively.

Many obstacles to primary care involvement in research have been identified, like misalignment with the social environment and organizational culture[53] and an interruption to the work or flow of clinic.[30] Prior research has acknowledged the importance of relevance for primary care clinicians when making decisions about participating in research.[28,29,54,55] Our study suggests that the perceived alignment of the research topic and goals with the professional identity and responsibilities of the primary care clinician may also be a crucial factor influencing decisions to participate. Although a lack of time may prevent participation,[28] our data suggest that clinicians are highly motivated to make time for research that promises to close the gap between ideal and real clinical practice. The extra burden placed on each practice to execute the RE-POWER study was considerable given the length of their involvement (3 years); the number of patients enrolled at each site (median, 40); and depending on their assigned arm, the work of study counseling and data collection visits. Their willingness to accept this burden signaled their motivation to participate despite the potential challenges.

These findings support that evaluating relevance is crucial for primary care physicians considering research participation.[30] Relevance can be evaluated at a clinical level (does this research respond to problems my patients are facing?), at the professional level (does participation give me tools and resources to be the kind of clinician I want to be?), and at the community level (does this research offer value to the broader community and demonstrate commitment to health beyond the clinic?). In the case of RE-POWER, they were operant questions.

Limitations of the study include that interviews were conducted with clinicians from a subset of practices that participated in RE-POWER and that they may not be representative of all clinicians at participating practices. In addition, because we focus only on participating clinicians, we are unable to know the degree to which these same motivations were present or absent for those that chose not to participate. We also do not know whether the same motivations would be found in a nonrural sample or with a study on a different clinical topic. Finally, although not all interviews were recorded, the same themes were identified across both recorded and nonrecorded interviews.

Our study examined motivations to participate in RE-POWER, a rural clinical trial on obesity. Despite the additional workload, clinicians were drawn to participating in this trial because it aligned with a pervasive and challenging clinical problem, helped aligned professional identity with clinical practice, and provided clinicians with a means to sustainably benefit their communities.

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To see this article online, please go to: http://jabfm.org/content/33/5/736.full.

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Appendix. Interview Guide Based on Constructs and Subdomains of the Consolidated Framework for Implementation Research

Overall decision-making/ motivation	Why did your practice decide to participate in the RE-POWER trial? How was the decision made? How important were factors related to improving care for obesity, improving overall patient experience, improving your training in weight loss counseling, gaining experience in research, and the financial incentives (each rated on 5-point scale)
Intervention characteristics	
Relative advantage	What are your thoughts about whether or not the intervention will be a better alternative to what you are already doing or have tried in the past?
Design quality and packaging	What has been your experience with the intervention materials so far?
Adaptability	Is there anything that would make the intervention fit better for your practice?
Complexity	How difficult do you think it will be to implement the intervention?
Inner setting	
Climate, tension for change	How much do other people at your practice feel that this program is needed to better help your patients lose weight?
Climate, compatibility	How does this program fit within the overall approach to improving patient care at your practice?
Climate, relative priority	How important is this program compared to other priorities in your practice?
Available resources	Do you feel you have sufficient information, resources, and space to make the study work?
Process, planning*	What issues did you encounter when planning the implementation of the study?
Characteristics of individuals*	How is the extra work distributed among staff? Does it seem fair, reasonable, sustainable?

*These domains were asked but not reported on in this study.
RE-POWER, Rural Engagement in Primary Care for Optimizing Weight Reduction.